

Appendix 3-B

Geochemical Test Data, Sediment
Pond Water Quality, and Leachate
Flow Rates

Memo

To:	Karyn Lewis	Date:	July 5, 2023
Company:	NWP Coal Canada	From:	Brent Thiele
Copy to:	Dan Mackie, SRK Stephen Day, SRK Hannah Blanchard, Dillon Consulting	Project #:	NA 393100.010 / USPR000425
Subject:	Crown Mountain Project – Responses to the 2 nd round of Conformity Review Questions		

1 Introduction

NWP Coal Canada (NWP Coal) has requested SRK Consulting respond to a second round of information requests from the federal government (IAAC) regarding the revised Crown Mountain Environmental Impact Statement. All questions from this round, with the exception of # 461 which will be delivered as a standalone memorandum, have been organized by the most relevant discipline SRK is responsible for: geochemistry and surface water modeling. SRK responses to each of the new information requests assigned to SRK disciplines in the file "Crown Mtn Round 2 Conformity Review WQ and Geochem IRs.xlsx" emailed on March 16th, 2023 are provided below.

2 Geochemistry

Tables for the requested data are include in the attached appendices:

- Appendix A1 - Static Test Data
- Appendix A2 - Kinetic Test Data
- Appendix A3 - Downhole Test Data

2.1 Information Request ID No. 435

"In Appendix 11C, Table 2-3, provide annual rock tonnages by rock type/stratigraphic package/formation. In Appendix 11C, provide complete metadata for all samples, including sampling location (borehole ID, depth), as well as rock type, and formation or stratigraphic package. Ensure all static test and downhole borehole log data appears in both tables and figures, and provide all certificates of analysis. Provide table of acronyms for all rock types."

Response

Annual rock tonnages for the Mist Mountain Formation, Morrissey Formation, Fernie Formation should be supplied by NWP from the updated mine plan for the project. The certifications are provided in Appendices A, B and D of Appendix 11C, the requested metadata is attached in:

- Appendix A1 - Static Test Data
- Appendix A3 - Downhole Test Data

2.2 Information Request ID No. 483

"Ensure kinetic test data (e.g. shake flask, column tests) is provided to assess short-term leaching of all potential exchangeable ions. Provide the test data in tabular form, as well as plots, and provide all certificates of analysis."

Response

- All requested kinetic test data is attached in Appendix A2 - Kinetic Test Data

3 Surface Water Modeling

Tables for Mean Monthly Effluent Chemistry and WRD Leachate flowrates are included for the following scenarios:

- Climate Scenarios:
 1. Base Climate Scenario (no climate change)
 2. RCP 4.5 Climate projections
 3. RCP 8.5 Climate projections
- Water Quality Scenarios:
 - a) 50th Percentile - WRD layering approach Fails
 - b) 50th Percentile - WRD layering approach Succeeds
 - c) 95th Percentile - WRD layering approach Fails
 - d) 95th Percentile - WRD layering approach Succeeds

3.1 Information Request ID No. 487

“Provide an estimate of the predicted quantity of leachate from the reject material, waste rock, tailings and coal. The effects assessment for the Project should consider impacts to the environment that may result from this leachate reaching the receiving environment.”

Response

Tabular data for WRD Leachate flows are attached in Appendix B2 for the 3 climate scenarios indicated above.

3.2 Information Request ID No. 488

“Provide effluent chemistry of all modelled parameters as listed in Table 21 of Appendix 11E in tabular format.”

Response

Tabular data for the WRD Sediment Pond (Interim & Ultimate) water quality for all 12 scenarios are attached in Appendix B1.

3.3 Information Request ID No. 493

“Model all water quality contaminants of concern in the Elk River, including cadmium, cobalt, and nickel.”

Response

Teck Resources Limited (Teck) has developed a Regional Water Quality Model (RWQM) for the Elk Valley that is currently being used to predict water quality values outside the Crown Mountain Project. Previously, water quality projections that were used to predict changes in water quality along the Elk River were provided to SRK from the 2019 RWQM for a limited number of species, specifically:

- Selenium
- Nitrate
- Sulphate
- Hardness

In order for SRK to provide water quality estimates along the Elk River for other species, including Cadmium, Cobalt, and Nickel, SRK would need to be supplied with projections for these geochemical species from the RWQM.

Appendices

Appendix A1: Static Test Data

Maxxam Sample No	Sample ID	From (m)	To (m)	Length (m)	No. of samples	Formation	Lithology Code	Lithology Code Graphing	Lithology	Location Type	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)
											pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%
UZ7242	CM18-03-GC-61	191.55	192.10	0.55	1	Morrissey Formation	ST	COAL-Morrissey	Coal - Morrissey	INTERBURDEN	7.48	55.23	0.19	4.30	0.48	<0.01	0.48
UZ7373	CM18-05-GC2-43	147.52	148.09	0.57	1	Morrissey Formation	ST/CDB	COAL-Morrissey	Coal - Morrissey	INTERBURDEN	8.02	48.96	0.19	4.30	0.57	<0.01	0.57
UZ7243	CM18-03-GC-62	192.10	192.30	0.20	1	Morrissey Formation	SST	SST-Morrissey	Sandstone - Morrissey	INTERBURDEN	6.48	0.69	<0.08	<1.8	-	<0.01	0.03
UZ7244	CM18-03-GC-63	192.30	197.30	5.00	1	Morrissey Formation	SST	SST-Morrissey	Sandstone - Morrissey	INTERBURDEN	5.61	0.56	0.14	3.20	0.14	0.03	0.11
UZ7316	CM18-27-GC-43	185.57	185.77	0.20	1	Morrissey Formation	SST	SST-Morrissey	Sandstone - Morrissey	INTERBURDEN	7.82	3.52	<0.08	<1.8	0.15	0.03	0.12
UZ7317	CM18-27-GC-44	185.77	189.38	3.61	1	Morrissey Formation	SST	SST-Morrissey	Sandstone - Morrissey	INTERBURDEN	6.15	0.72	0.22	5.00	0.31	0.03	0.28
UZ7375	CM18-05-GC2-45	148.12	149.82	1.70	1	Morrissey Formation	SST	SST-Morrissey	Sandstone - Morrissey	INTERBURDEN	6.67	1.04	0.15	3.40	0.06	<0.01	0.06
UZ7315	CM18-27-GC-42	184.77	185.57	0.80	1	Morrissey Formation	ST/SLT	ST/SLT-Morrissey	Stoney Coal/Siltstone - Morrissey	INTERBURDEN	9.01	38.49	0.26	5.90	0.52	<0.01	0.52
UZ7173	SAMPLE 10+11	37.42	39.37	1.95	1	Mist Mountain Formation	MDST/COAL	COAL	COAL	INTERBURDEN	6.18	9.68	2.13	48.40	0.17	<0.03	0.14
UZ7176	SAMPLE 16	54.95	58.00	3.05	1	Mist Mountain Formation	MDST/COAL	COAL	COAL	SEAM	6.32	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7261	CM18-16-GC-31	131.53	131.98	0.45	1	Mist Mountain Formation	ST/CCST	COAL	COAL	SEAM	8.17	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7265	CM18-16-GC-35	138.68	139.08	0.40	1	Mist Mountain Formation	ST/CDB	COAL	COAL	SEAM	7.96	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7267	CM18-16-GC-37	141.48	141.58	0.10	1	Mist Mountain Formation	CDB	COAL	COAL	SEAM	7.51	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7298	CM18-27-GC-25	115.63	115.78	0.15	1	Mist Mountain Formation	CD&B	COAL	COAL	SEAM	7.70	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7300	CM18-27-GC-27	118.90	119.03	0.13	1	Mist Mountain Formation	CD+B	COAL	COAL	SEAM	7.23	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7343	CM18-05-GC2-13	57.48	63.63	6.15	1	Mist Mountain Formation	CD	COAL	COAL	SEAM	7.75	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7349	CM18-05-GC2-19	79.88	81.48	1.60	1	Mist Mountain Formation	ST/CDB	COAL	COAL	SEAM	7.84	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7352	CM18-05-GC2-22	85.18	85.42	0.24	1	Mist Mountain Formation	CDB/CD+B	COAL	COAL	SEAM	6.95	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7357	CM18-05-GC2-27	109.49	111.78	2.29	1	Mist Mountain Formation	CDB	COAL	COAL	SEAM	8.05	43.78	1.41	32.10	0.26	<0.01	0.26
UZ7361	CM18-05-GC2-31	120.73	120.88	0.15	1	Mist Mountain Formation	ST	COAL	COAL	Near SEAM	7.02	40.08	0.13	3.00	0.67	0.01	0.66
UZ7363	CM18-05-GC2-33	121.58	121.78	0.20	1	Mist Mountain Formation	ST	COAL	COAL	Near SEAM	7.92	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
VA9940	11-12-12	37.15	37.60	0.45	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	7.59	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9942	11-12-22	43.98	44.50	0.52	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	7.04	7.31	0.23	5.20	0.07	0.01	0.06
VA9943	11-12-27	48.50	50.50	2.00	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	6.90	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9944	11-12-28	50.50	52.50	2.00	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	6.57	#N/A	#N/A	#N/A	#N/A	0.02	#N/A
VA9947	11-12-35	58.45	58.55	0.10	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	5.11	#N/A	#N/A	#N/A	#N/A	0.04	#N/A
VB9483	11-19-101	148.50	148.95	0.45	1	Mist Mountain Formation	COAL	COAL	COAL	SEAM	8.07	2.38	0.17	3.90	0.22	0.02	0.20
UZ7284	CM18-27-GC-11	61.98	68.08	6.10	1	Mist Mountain Formation	CCST/SST	CCST/SST	Carbonaceous claystone/Sandstone	INTERBURDEN	7.81	2.62	1.20	27.30	0.09	<0.01	0.09
UZ7302	CM18-27-GC-29	126.48	131.88	5.40	1	Mist Mountain Formation	CCST/CST	CCST/CST	Carbonaceous claystone/Claystone	INTERBURDEN	8.26	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7305	CM18-27-GC-32	143.48	147.48	4.00	1	Mist Mountain Formation	CST/CCST	CCST/CST	Carbonaceous claystone/Claystone	INTERBURDEN	7.81	4.86	0.65	14.80	0.09	<0.01	0.09
UZ7229	CM18-03-GC-45	147.22	147.37	0.15	1	Mist Mountain Formation	CCST	CCST	Carbonaceous claystone	Near SEAM	7.49	11.14	0.31	7.10	0.34	<0.01	0.34
UZ7230	CM18-03-GC-47	155.35	155.60	0.25	1	Mist Mountain Formation	CCST	CCST	Carbonaceous claystone	INTERBURDEN	7.03	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7358	CM18-05-GC2-28	111.78	111.98	0.20	1	Mist Mountain Formation	CCST	CCST	Carbonaceous claystone	Near SEAM	7.79	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7372	CM18-05-GC2-42	147.27	147.52	0.25	1	Mist Mountain Formation	CCST	CCST	Carbonaceous claystone	Near SEAM	8.07	14.40	22.63	514.30	0.55	<0.01	0.55
UZ7170	SAMPLE 6	32.65	32.85	0.20	1	Mist Mountain Formation	CARB DEBRIS	CARB	Carbonaceous	Near SEAM	6.26	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7171	SAMPLE 8	35.10	35.30	0.20	1	Mist Mountain Formation	CARB SHL	CARB	Carbonaceous	Near SEAM	5.40	13.08	<0.08	1.80	0.14	0.02	0.12
VA9948	11-12-37	59.55	60.50	0.95	1	Mist Mountain Formation	CARB	CARB	Carbonaceous	INTERBURDEN	7.28	3.89	3.68	83.60	0.09	0.01	0.08
UZ7217	CM18-03-GC-29	110.40	113.39	2.99	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.86	4.87	1.63	37.10	0.10	<0.01	0.10
UZ7218	CM18-03-GC-30	113.39	116.44	3.05	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.21	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7219	CM18-03-GC-31	116.44	119.50	3.06	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.15	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7220	CM18-03-GC-32	119.50	120.35	0.85	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.19	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7231	CM18-03-GC-48	155.60	161.30	5.70	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.34	6.16	0.51	11.60	0.16	<0.01	0.16
UZ7236	CM18-03-GC-55	176.42	176.55	0.13	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.67	10.98	<0.08	<1.8	0.47	<0.01	0.47
UZ7241	CM18-03-GC-60	191.40	191.55	0.15	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.22	21.86	<0.08	<1.8	0.33	<0.01	0.33
UZ7245	CM18-16-GC-15	67.60	73.58	5.98	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.70	8.21	1.65	37.50	0.14	<0.01	0.14
UZ7246	CM18-16-GC-16	73.58	79.48	5.90	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.72	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7253	CM18-16-GC-23	106.78	106.98	0.20	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.97	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7254	CM18-16-GC-24	106.98	111.49	4.51	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.05	3.79	2.90	65.90	0.11	<0.01	0.11
UZ7255	CM18-16-GC-25	111.49	116.98	5.49	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.49	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7266	CM18-16-GC-36	139.08	141.48	2.40	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.92	5.24	0.78	17.70	0.14	<0.01	0.14
UZ7274	CM18-27-GC-01	15.00	20.48	5.48	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	6.35	2.57	<0.08	<1.8	0.05	<0.01	0.05
UZ7275	CM18-27-GC-02	20.48	26.03	5.55	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	6.63	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7276	CM18-27-GC-03	26.03	29.48	3.45	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	6.63	3.13	<0.08	<1.8	0.05	<0.01	0.05
UZ7285	CM18-27-GC-12	68.08	72.38	4.30	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.07	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7290	CM18-27-GC-17	85.48	85.68	0.20	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.37	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7297	CM18-27-GC-24	114.48	115.63	1.15	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.22	22.08	1.74	39.60	0.22	<0.01	0.22
UZ7303	CM18-27-GC-30	131.88	137.48	5.60	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.24	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A

Maxxam Sample No	Sample ID	Acid Generation Potential Kg CaCO3/T	Mod. ABA Neutralization Potential Kg CaCO3/T	Fizz Rating N/A	Net Neutralization Potential Kg CaCO3/T	Neutralization Potential Ratio N/A	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppb	Ni ppm	Co ppm	Mn ppm	Fe %	As ppm	U ppm	Au ppb	Th ppm	Sr ppm	Cd ppm	Sb ppm	Bi ppm	V ppm	Ca %	P %	La ppm	Cr ppm	Mg %	Ba ppm	Ti %
UZ7242	CM18-03-GC-61	15.00	2.00	NONE (H)	-13.00	0.10	0.26	17.7	11.1	91.9	89	5.3	4.1	51	0.28	<0.1	0.6	<0.2	3.0	5.8	0.29	0.09	0.16	7	0.04	0.009	10.9	4.6	0.02	200	0.002
UZ7373	CM18-05-GC2-43	17.80	2.30	NONE	-15.50	0.10	0.32	25.0	10.4	72.2	101	9.2	11.5	51	0.31	0.8	0.6	<0.2	3.0	6.2	0.42	0.13	0.15	8	0.06	0.009	9.9	3.0	0.03	293	0.001
UZ7243	CM18-03-GC-62	0.90	1.80	NONE	0.90	2.00	0.46	5.24	1.50	45.3	55	5.2	2.3	62	0.56	0.3	0.5	<0.2	1.7	13.7	0.29	0.05	0.03	7	0.16	0.073	3.0	11.0	0.02	100	<0.001
UZ7244	CM18-03-GC-63	3.40	4.30	NONE	0.90	1.30	0.77	6.03	6.93	59.9	319	19.5	6.9	59	0.68	5.7	0.9	<0.2	1.9	21.9	0.30	0.19	0.03	16	0.36	0.147	4.2	14.1	0.04	310	<0.001
UZ7316	CM18-27-GC-43	3.80	2.50	SLIGHT	-1.30	0.70	0.61	4.57	1.41	14.7	41	5.3	1.5	107	0.98	0.7	0.2	0.3	0.4	33.2	0.04	0.04	0.02	5	0.02	0.003	0.9	10.1	0.01	1730	<0.001
UZ7317	CM18-27-GC-44	8.80	4.80	SLIGHT	-4.00	0.50	1.13	6.70	7.12	48.3	283	21.2	6.0	128	1.24	5.6	0.9	<0.2	1.6	41.8	0.29	0.24	0.02	15	0.32	0.108	3.7	13.5	0.05	377	0.001
UZ7375	CM18-05-GC2-45	1.90	3.50	NONE	1.60	1.80	0.35	5.25	3.14	53.1	141	9.5	4.8	70	0.74	1.0	0.7	<0.2	1.8	15.5	0.28	0.08	0.02	9	0.25	0.096	3.6	12.6	0.03	78.8	<0.001
UZ7315	CM18-27-GC-42	16.30	2.50	NONE	-13.80	0.20	0.48	21.6	11.8	73.8	126	7.8	5.4	72	0.49	0.6	0.7	0.3	2.6	25.9	0.41	0.17	0.21	4	0.05	0.008	5.5	2.5	0.03	374	<0.001
UZ7173	SAMPLE 10+11	4.40	12.80	NONE	8.40	2.90	3.21	44.5	17.4	190	488	59.3	13.6	190	2.77	9.9	2.1	<1.2	5.1	44.7	3.23	0.57	0.29	49	0.38	0.084	9.1	12.9	0.27	520	0.001
UZ7176	SAMPLE 16	#N/A	2.00	NONE	#N/A	#N/A	2.28	42.9	19.0	207	443	35.2	11.1	20	0.33	4.4	1.5	<0.5	4.1	17.5	2.22	0.53	0.31	34	0.14	0.049	5.1	8.1	0.07	245	0.001
UZ7261	CM18-16-GC-31	#N/A	5.00	NONE (H)	#N/A	#N/A	1.82	41.8	12.9	187	449	25.8	4.6	16	0.24	5.6	2.0	<0.2	3.8	48.9	3.45	0.77	0.23	22	0.25	0.073	5.8	5.9	0.07	347	0.001
UZ7265	CM18-16-GC-35	#N/A	1.80	NONE (H)	#N/A	#N/A	1.07	33.0	12.9	44.1	102	2.4	1.2	9	0.07	0.1	1.4	<0.2	3.3	687	0.40	0.19	0.28	17	0.11	0.146	11.5	3.5	0.03	1140	0.003
UZ7267	CM18-16-GC-37	#N/A	16.80	NONE (H)	#N/A	#N/A	2.75	17.6	5.92	58.8	49	5.9	1.9	177	3.18	0.1	0.5	<0.2	0.6	12.6	0.19	2.29	0.08	14	0.21	0.003	1.8	2.2	0.44	62.7	0.001
UZ7298	CM18-27-GC-25	#N/A	2.00	NONE	#N/A	#N/A	2.88	24.6	13.0	5.1	47	4.3	1.8	6	0.03	<0.1	3.5	<0.2	2.6	1950	0.05	2.44	0.20	19	0.33	0.446	23.0	3.8	<0.01	3130	0.012
UZ7300	CM18-27-GC-27	#N/A	1.50	NONE	#N/A	#N/A	2.65	5.87	2.63	10.6	41	3.1	1.0	37	0.12	<0.1	0.6	<0.2	0.4	150	0.17	1.26	0.04	4	0.06	0.033	7.7	1.3	0.02	236	0.001
UZ7343	CM18-05-GC2-13	#N/A	8.50	NONE (H)	#N/A	#N/A	2.06	55.4	3.79	12.0	62	2.0	1.4	19	0.12	0.5	0.3	<0.2	0.8	97.5	0.17	0.20	0.08	21	0.86	0.382	3.1	3.0	0.03	169	0.002
UZ7349	CM18-05-GC2-19	#N/A	7.50	NONE (H)	#N/A	#N/A	2.78	22.3	11.0	58.5	111	10.8	4.3	4	0.08	2.1	1.4	<0.2	3.1	703	0.68	0.42	0.16	18	0.64	0.363	13.3	5.5	0.03	1140	0.003
UZ7352	CM18-05-GC2-22	#N/A	1.30	NONE (H)	#N/A	#N/A	1.50	7.19	4.88	10.3	42	8.1	3.3	1	0.02	0.4	0.8	<0.2	0.9	304	0.10	1.04	0.05	15	0.03	0.065	16.0	2.2	<0.01	431	0.003
UZ7357	CM18-05-GC2-27	8.10	10.30	SLIGHT	2.20	1.30	1.16	19.8	9.40	12.8	130	2.8	1.2	110	1.28	0.6	0.7	<0.2	1.0	55.5	0.20	0.15	0.24	14	0.38	0.100	4.4	3.8	0.14	253	<0.001
UZ7361	CM18-05-GC2-31	20.60	1.50	NONE	-19.10	<0.1	2.86	51.6	23.8	137	229	13.7	5.5	6	0.37	2.2	1.4	<0.2	1.5	4.6	1.95	0.58	0.36	25	0.06	0.001	1.1	4.2	0.05	199	0.001
UZ7363	CM18-05-GC2-33	#N/A	17.80	SLIGHT	#N/A	#N/A	1.58	41.4	18.9	134	253	29.2	10.9	52	0.56	0.9	1.3	<0.2	5.6	26.5	1.71	0.26	0.25	24	0.63	0.096	5.9	8.3	0.19	324	<0.001
VA9940	11-12-12	#N/A	37.00	SLIGHT	#N/A	#N/A	1.22	34.9	15.7	163	270	30.9	8.7	154	1.07	2.7	1.6	0.3	5.8	31.3	1.90	0.35	0.25	39	1.16	0.095	6.8	11.2	0.48	320	0.001
VA9942	11-12-22	1.90	1.00	NONE	-0.90	0.50	0.45	29.8	16.6	82.4	211	6.9	2.6	33	0.42	1.8	0.7	<0.2	1.9	11.5	0.75	0.11	0.36	25	0.11	0.008	2.7	7.8	0.11	309	<0.001
VA9943	11-12-27	#N/A	2.00	NONE	#N/A	#N/A	1.29	29.5	13.5	168	596	10.8	2.3	33	0.40	6.1	1.6	<0.2	3.3	21.4	3.64	0.33	0.24	22	0.17	0.048	5.0	7.9	0.09	332	<0.001
VA9944	11-12-28	#N/A	2.50	NONE	#N/A	#N/A	3.84	43.6	17.1	353	722	32.5	10.3	68	0.53	2.7	2.3	<0.2	3.4	21.2	5.92	0.63	0.28	32	0.15	0.033	3.5	8.0	0.10	367	<0.001
VA9947	11-12-35	#N/A	0.50	NONE	#N/A	#N/A	2.15	57.9	23.8	198	279	55.4	14.7	23	0.55	14.0	1.2	<0.2	2.3	12.6	1.97	0.49	0.38	32	0.08	0.020	3.0	8.6	0.09	334	<0.001
VB9483	11-19-101	6.30	2.80	NONE	-3.50	0.40	1.24	14.2	10.4	142	344	28.2	15.9	33	0.42	7.2	1.2	<0.2	4.9	41.0	0.97	0.11	0.09	15	0.32	0.103	6.1	7.1	0.05	479	<0.001
UZ7284	CM18-27-GC-11	2.80	16.50	SLIGHT	13.70	5.90	1.32	26.8	13.8	127	247	27.3	8.9	177	1.24	11.4	1.0	<0.2	3.9	16.5	1.11	0.26	0.17	22	0.58	0.060	5.1	8.8	0.28	232	<0.001
UZ7302	CM18-27-GC-29	#N/A	60.30	SLIGHT	#N/A	#N/A	1.06	33.4	16.5	163	239	28.4	10.6	503	3.62	1.7	1.4	<0.2	4.9	36.4	1.51	0.15	0.27	38	1.46	0.106	6.8	11.8	0.80	297	0.001
UZ7305	CM18-27-GC-32	2.80	4.30	NONE	1.50	1.50	1.45	38.8	17.9	184	251	34.9	11.2	83	0.96	2.1	1.1	<0.2	3.3	28.8	1.52	0.20	0.29	27	0.30	0.065	3.8	8.2	0.16	305	<0.001
UZ7229	CM18-03-GC-45	10.60	2.50	NONE	-8.10	0.20	2.55	49.3	18.2	270	661	32.7	7.7	39	0.53	5.3	2.9	<0.2	4.5	24.0	5.53	0.69	0.31	32	0.24	0.072	4.9	12.5	0.10	350	<0.001
UZ7230	CM18-03-GC-47	#N/A	2.00	NONE (H)	#N/A	#N/A	1.55	36.5	12.9	369	122	6.3	2.0	15	0.22	0.5	0.8	0.4	0.7	3.8	0.87	0.47	0.16	14	0.04	0.002	0.7	4.3	0.04	148	<0.001
UZ7358	CM18-05-GC2-28	#N/A	2.50	NONE	#N/A	#N/A	0.75	40.3	8.01	71.3	201	12.4	5.5	9	0.24	1.8	0.3	<0.2	1.0	5.5	1.42	0.09	0.25	18	0.07	0.001	1.3	3.7	0.06	237	<0.001
UZ7372	CM18-05-GC2-42	17.20	39.00	SLIGHT	21.80	2.30	0.41	9.58	5.47	49.2	123	9.7	6.0	2990	24.2	3.2	0.6	<0.2	1.8	24.9	0.30	0.10	0.08	34	1.52	0.058	11.0	10.1	1.56	384	0.001
UZ7170	SAMPLE 6	#N/A	5.30	NONE (H)	#N/A	#N/A	1.61	33.7	15.8	128	483	16.0	5.1	275	2.04	1.9	1.1	1.9	1.4	7.4	2.41	0.66	0.22	33	0.09	0.008	2.2	8.1	0.08	250	0.001
UZ7171	SAMPLE 8	3.80	0.00	NONE	-3.80	#N/A	1.79	30.8	17.9	143	517	13.4	3.0	29	0.34	1.2	1.5	<0.2	3.7	15.0	1.68	0.45	0.31	35	0.08	0.027	3.8	8.9	0.05	331	<0.001
VA9948	11-12-37	2.50	17.80	NONE	15.30	7.10	1.72	41.1	19.0	151	261	39.2	12.4	682	5.04	5.0	1.2	0.4	4.9	23.4	1.46	0.24	0.27	48	0.78	0.093	5.5	14.8	0.52	310	<0.001
UZ7217	CM18-03-GC-29	3.10	31.50	SLIGHT	28.40	10.20	2.00	44.7	31.2	255	415	40.8	10.9	103	0.86	2.5	2.0	<0.2	6.1	41.4	2.85	0.36	0.27	45	0.98	0.105	7.8	15.1	0.45	428	0.001
UZ7218	CM18-03-GC-30	#N/A	63.50	SLIGHT	#N/A	#N/A	1.36	41.5	22.9	201	410	44.1	11.7	176	1.14	1.3	1.9	1.3	6.4	90.9	2.44	0.35	0.25	35	1.73	0.119	11.1	11.4	0.72	428	0.001
UZ7219	CM18-03-GC-31	#N/A	63.80	SLIGHT	#N/A	#N/A	1.56	36.7	15.1	158	301	32.7	8.6	1120	7.34	2.6	1.9	0.3	5.6	91.0	1.93	0.39	0.25	54	1.93	0.145	10.3	16.1	0.88	462	0.002
UZ7220	CM18-03-GC-32	#N/A	87.80	SLIGHT	#N/A	#N/A	2.40	37.4	16.9	178	299	39.8	10.8	632	3.41	8.9	2.5	<0.2	6.4	57.2	2.21	0.45	0.27	48	2.38	0.170	10.0	17.3	1.25	410	0.001
UZ7231	CM18-03-GC-48	5.00	2.00	NONE	-3.00	0.40	1.37	47.7	21.5	214	279																				

Maxxam Sample No	Sample ID	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S	Flourine (F)
		ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm
UZ7242	CM18-03-GC-61	<20	0.19	0.005	0.09	<0.1	4.6	<0.02	15	1.1	0.03	1.3	0.13	#N/A
UZ7373	CM18-05-GC2-43	<20	0.31	0.003	0.12	<0.1	4.5	<0.02	53	1.1	0.05	1.3	0.21	#N/A
UZ7243	CM18-03-GC-62	<20	0.19	<0.001	0.09	<0.1	2.3	0.04	10	<0.1	<0.02	0.8	0.03	#N/A
UZ7244	CM18-03-GC-63	<20	0.25	0.002	0.11	<0.1	2.9	0.03	32	0.2	<0.02	0.8	0.13	#N/A
UZ7316	CM18-27-GC-43	<20	0.18	0.030	0.10	<0.1	0.8	<0.02	14	<0.1	<0.02	0.5	0.11	#N/A
UZ7317	CM18-27-GC-44	<20	0.31	0.031	0.14	<0.1	2.9	0.04	74	0.2	<0.02	1.0	0.27	#N/A
UZ7375	CM18-05-GC2-45	45	0.21	0.008	0.10	<0.1	2.8	0.03	19	<0.1	<0.02	0.6	0.04	#N/A
UZ7315	CM18-27-GC-42	<20	0.31	0.056	0.11	<0.1	2.9	<0.02	52	0.7	0.05	0.9	0.23	#N/A
UZ7173	SAMPLE 10+11	<20	0.96	0.007	0.34	<0.1	6.0	0.03	218	4.3	0.08	2.2	0.11	#N/A
UZ7176	SAMPLE 16	<20	0.83	0.007	0.30	<0.1	5.2	0.02	228	2.9	0.07	2.5	0.10	#N/A
UZ7261	CM18-16-GC-31	<20	0.43	0.011	0.21	<0.1	4.1	0.06	281	4.5	0.07	1.0	0.13	#N/A
UZ7265	CM18-16-GC-35	<20	0.62	0.009	0.07	<0.1	3.9	<0.02	79	2.3	0.11	1.5	0.04	#N/A
UZ7267	CM18-16-GC-37	<20	0.10	0.005	0.02	<0.1	10.9	<0.02	41	0.7	0.03	2.5	0.04	60
UZ7298	CM18-27-GC-25	<20	0.78	0.003	0.03	<0.1	6.2	<0.02	75	1.3	0.14	4.0	0.05	#N/A
UZ7300	CM18-27-GC-27	<20	0.11	0.004	0.03	<0.1	1.8	<0.02	33	0.9	0.06	0.7	0.10	#N/A
UZ7343	CM18-05-GC2-13	39	0.48	0.006	0.10	<0.1	3.7	<0.02	40	0.4	0.04	1.1	0.06	781
UZ7349	CM18-05-GC2-19	<20	0.82	0.004	0.15	<0.1	5.1	<0.02	90	1.6	0.08	1.9	0.12	840
UZ7352	CM18-05-GC2-22	<20	0.14	0.002	0.02	<0.1	3.6	<0.02	41	0.7	0.04	1.5	0.08	#N/A
UZ7357	CM18-05-GC2-27	<20	0.58	0.006	0.14	<0.1	3.1	<0.02	44	1.2	0.06	1.4	0.02	#N/A
UZ7361	CM18-05-GC2-31	39	0.42	0.002	0.13	<0.1	7.2	<0.02	281	2.7	0.10	0.9	0.37	#N/A
UZ7363	CM18-05-GC2-33	44	0.78	0.007	0.31	<0.1	4.4	0.03	139	2.0	0.05	2.0	0.06	#N/A
VA9940	11-12-12	<20	1.08	0.009	0.39	<0.1	5.8	0.04	124	1.4	0.05	2.8	0.03	#N/A
VA9942	11-12-22	<20	0.99	0.008	0.38	<0.1	4.5	0.03	58	1.1	0.06	2.4	0.04	#N/A
VA9943	11-12-27	<20	0.64	0.005	0.26	<0.1	4.7	0.04	136	4.1	0.05	1.4	0.04	#N/A
VA9944	11-12-28	<20	0.61	0.006	0.28	<0.1	5.6	0.03	275	6.8	0.08	1.3	0.09	#N/A
VA9947	11-12-35	<20	0.86	0.009	0.31	<0.1	6.1	0.05	170	2.3	0.10	2.6	0.13	#N/A
VB9483	11-19-101	<20	0.57	0.054	0.23	<0.1	3.1	0.04	78	0.5	0.02	1.7	0.16	666
UZ7284	CM18-27-GC-11	<20	0.66	0.003	0.26	<0.1	4.3	0.05	117	0.7	0.02	1.6	0.07	#N/A
UZ7302	CM18-27-GC-29	<20	0.95	0.014	0.32	<0.1	6.5	0.03	97	1.4	0.03	2.3	0.05	#N/A
UZ7305	CM18-27-GC-32	<20	0.83	0.014	0.32	<0.1	4.8	0.02	73	2.0	0.04	2.2	0.06	#N/A
UZ7229	CM18-03-GC-45	<20	0.84	0.008	0.34	<0.1	4.3	0.04	268	7.5	0.06	1.9	0.25	#N/A
UZ7230	CM18-03-GC-47	<20	0.41	0.004	0.14	<0.1	4.9	<0.02	104	0.8	0.03	1.8	0.13	#N/A
UZ7358	CM18-05-GC2-28	47	0.59	0.004	0.15	<0.1	4.8	<0.02	105	1.3	0.07	1.2	0.04	#N/A
UZ7372	CM18-05-GC2-42	<20	0.48	0.013	0.15	<0.1	9.9	0.03	91	0.4	<0.02	1.3	0.44	#N/A
UZ7170	SAMPLE 6	<20	0.39	0.004	0.19	<0.1	6.5	<0.02	90	2.6	0.06	1.3	0.07	#N/A
UZ7171	SAMPLE 8	<20	0.81	0.005	0.28	<0.1	4.8	0.03	96	3.4	0.06	2.2	0.06	#N/A
VA9948	11-12-37	<20	0.97	0.013	0.35	<0.1	7.3	0.04	84	1.8	0.05	2.6	0.08	#N/A
UZ7217	CM18-03-GC-29	<20	1.19	0.009	0.42	<0.1	5.7	0.04	156	2.6	0.05	3.1	0.06	#N/A
UZ7218	CM18-03-GC-30	<20	0.75	0.006	0.27	<0.1	5.8	0.04	121	2.5	0.06	1.9	0.04	#N/A
UZ7219	CM18-03-GC-31	<20	0.89	0.010	0.30	<0.1	9.6	0.03	116	1.7	0.05	2.3	0.06	918
UZ7220	CM18-03-GC-32	<20	1.01	0.010	0.35	<0.1	9.3	0.03	225	2.3	0.05	2.3	0.11	#N/A
UZ7231	CM18-03-GC-48	<20	0.77	0.009	0.29	<0.1	5.5	0.03	153	1.9	0.05	1.9	0.12	#N/A
UZ7236	CM18-03-GC-55	<20	0.41	0.003	0.24	<0.1	2.2	<0.02	154	1.3	0.03	1.0	0.37	#N/A
UZ7241	CM18-03-GC-60	<20	0.46	0.002	0.17	<0.1	2.7	<0.02	64	1.0	0.03	1.0	0.21	#N/A
UZ7245	CM18-16-GC-15	<20	0.56	0.006	0.25	<0.1	4.2	<0.02	131	2.5	0.04	1.5	0.05	#N/A
UZ7246	CM18-16-GC-16	<20	0.57	0.005	0.25	<0.1	2.5	0.04	114	1.1	0.03	1.4	0.05	422
UZ7253	CM18-16-GC-23	<20	0.44	0.009	0.19	<0.1	3.4	<0.02	102	1.5	0.06	1.1	0.02	#N/A
UZ7254	CM18-16-GC-24	<20	0.62	0.018	0.26	<0.1	5.6	0.04	125	1.8	0.07	1.7	0.06	#N/A
UZ7255	CM18-16-GC-25	<20	0.67	0.029	0.26	<0.1	6.7	0.05	100	1.1	0.03	1.8	0.07	#N/A
UZ7266	CM18-16-GC-36	<20	0.68	0.016	0.26	<0.1	4.4	0.03	116	1.1	0.05	1.7	0.09	#N/A
UZ7274	CM18-27-GC-01	<20	0.80	0.006	0.30	<0.1	5.1	0.12	120	2.7	0.04	2.0	<0.02	770
UZ7275	CM18-27-GC-02	<20	0.88	0.006	0.33	<0.1	5.2	0.12	88	1.6	0.04	2.3	<0.02	#N/A
UZ7276	CM18-27-GC-03	<20	0.73	0.005	0.29	<0.1	3.2	0.07	111	1.4	0.06	1.8	<0.02	#N/A
UZ7285	CM18-27-GC-12	<20	0.80	0.006	0.31	<0.1	5.3	0.05	110	1.0	0.04	2.1	0.05	740
UZ7290	CM18-27-GC-17	<20	0.45	0.004	0.22	<0.1	2.7	<0.02	97	0.8	0.04	1.0	0.06	#N/A
UZ7297	CM18-27-GC-24	<20	0.76	0.007	0.22	<0.1	5.5	<0.02	164	4.2	0.09	1.9	0.08	#N/A
UZ7303	CM18-27-GC-30	<20	1.24	0.018	0.41	<0.1	6.8	0.10	112	1.4	0.06	3.3	0.20	#N/A

Maxxam Sample No	Sample ID	From (m)	To (m)	Length (m)	No. of samples	Formation	Lithology Code	Lithology Code Graphing	Lithology	Location Type	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)
											pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%
UZ7304	CM18-27-GC-31	138.48	141.48	3.00	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.96	1.78	0.29	6.60	0.11	<0.01	0.11
UZ7318	CM18-10-GC-01	11.80	16.33	4.53	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.34	3.94	3.81	86.60	0.90	<0.01	0.90
UZ7322	CM18-10-GC-05	29.55	34.80	5.25	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.40	3.32	5.17	117.50	0.11	0.01	0.10
UZ7323	CM18-10-GC-06	34.80	35.05	0.25	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	8.10	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7339	CM18-05-GC2-09	44.38	49.48	5.10	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.22	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7340	CM18-05-GC2-10	49.48	53.88	4.40	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	8.09	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7342	CM18-05-GC2-12	57.28	57.48	0.20	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.71	2.78	1.33	30.20	0.08	<0.01	0.08
UZ7344	CM18-05-GC2-14	63.63	63.78	0.15	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.73	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7348	CM18-05-GC2-18	79.68	79.88	0.20	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	8.04	7.31	2.05	46.60	0.19	<0.01	0.19
UZ7360	CM18-05-GC2-30	117.93	120.73	2.80	1	Mist Mountain Formation	CST	CST	Claystone	INTERBURDEN	7.51	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7368	CM18-05-GC2-38	132.06	132.27	0.21	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	7.85	13.02	0.10	2.30	0.38	<0.01	0.38
UZ7374	CM18-05-GC2-44	148.09	148.12	0.03	1	Mist Mountain Formation	CST	CST	Claystone	Near SEAM	8.23	24.61	30.21	686.60	0.17	<0.01	0.17
UZ7263	CM18-16-GC-33	133.98	134.58	0.60	1	Mist Mountain Formation	CST/CDB	CST/CDB	Claystone/Dull Banded	SEAM	7.88	83.76	0.29	6.60	0.77	<0.01	0.77
UZ7247	CM18-16-GC-17	79.48	84.78	5.30	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.62	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7256	CM18-16-GC-26	116.98	120.48	3.50	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.88	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7257	CM18-16-GC-27	120.48	124.03	3.55	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.50	6.87	8.15	185.20	0.11	<0.01	0.11
UZ7262	CM18-16-GC-32	131.98	133.98	2.00	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.45	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7264	CM18-16-GC-34	134.58	138.68	4.10	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.50	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7273	CM18-16-GC-43	162.78	162.78	3.23	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	9.16	3.45	5.06	115.00	0.19	<0.01	0.19
UZ7279	CM18-27-GC-06	37.48	43.48	6.00	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	6.92	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7293	CM18-27-GC-20	95.48	98.58	3.10	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.30	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7295	CM18-27-GC-22	102.48	108.48	6.00	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.49	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7296	CM18-27-GC-23	108.48	114.48	6.00	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.47	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7301	CM18-27-GC-28	120.48	124.23	3.75	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.60	2.97	5.16	117.30	0.06	<0.01	0.06
UZ7345	CM18-05-GC2-15	63.78	69.48	5.70	1	Mist Mountain Formation	CST/SLT	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.01	4.98	4.13	93.90	0.09	<0.01	0.09
UZ7347	CM18-05-GC2-17	75.48	79.68	4.20	1	Mist Mountain Formation	SLT/CST	CST/SLT	Claystone/Siltstone	INTERBURDEN	8.10	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7233	CM18-03-GC-51	167.30	171.05	3.75	1	Mist Mountain Formation	CST/SST	CST/SST	Claystone/Sandstone	INTERBURDEN	8.34	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7238	CM18-03-GC-57	182.15	185.30	3.15	1	Mist Mountain Formation	CST/SST	CST/SST	Claystone/Sandstone	INTERBURDEN	7.65	5.29	0.50	11.40	0.27	<0.01	0.27
UZ7291	CM18-27-GC-18	85.68	90.68	5.00	1	Mist Mountain Formation	SST/CST	CST/SST	Claystone/Sandstone	INTERBURDEN	7.84	1.16	0.77	17.50	0.04	<0.01	0.04
UZ7307	CM18-27-GC-34	156.48	159.48	3.00	1	Mist Mountain Formation	CST/SST	CST/SST	Claystone/Sandstone	INTERBURDEN	8.53	2.39	1.24	28.20	0.04	<0.01	0.04
UZ7326	CM18-10-GC-31	101.33	104.97	3.64	1	Mist Mountain Formation	SST/CST	CST/SST	Claystone/Sandstone	INTERBURDEN	8.36	3.45	0.74	16.80	0.26	<0.01	0.26
UZ7341	CM18-05-GC2-11	53.88	57.28	3.40	1	Mist Mountain Formation	SST/CST	CST/SST	Claystone/Sandstone	INTERBURDEN	8.27	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7166	SAMPLE 1	13.35	16.55	3.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	INTERBURDEN	5.38	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7167	SAMPLE 2	16.55	16.75	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	5.45	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7172	SAMPLE 9	35.30	37.42	2.12	1	Mist Mountain Formation	MUDSTONE	MDST	Mudstone	INTERBURDEN	5.80	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7177	SAMPLE 17	101.00	104.15	6.25	1	Mist Mountain Formation	MDST	MDST	Mudstone	INTERBURDEN	8.06	4.41	3.97	90.20	0.08	0.01	0.07
UZ7178	SAMPLE 20	109.50	109.70	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	7.48	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7179	SAMPLE 21	109.70	113.33	3.63	1	Mist Mountain Formation	MDST	MDST	Mudstone	INTERBURDEN	8.07	5.16	3.37	76.60	0.05	0.01	0.04
UZ7180	SAMPLE 22	113.33	116.75	3.43	1	Mist Mountain Formation	MDST	MDST	Mudstone	INTERBURDEN	8.32	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7181	SAMPLE 23	116.75	116.95	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	7.96	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7182	SAMPLE 25	118.40	118.60	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	7.63	5.46	0.25	5.70	0.05	<0.01	0.05
UZ7183	SAMPLE 26	118.60	122.00	3.40	1	Mist Mountain Formation	MDST/COAL	MDST	Mudstone	INTERBURDEN	7.55	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7191	SAMPLE 36	144.00	144.20	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	7.52	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7192	SAMPLE 38	150.40	150.60	0.20	1	Mist Mountain Formation	MDST	MDST	Mudstone	Near SEAM	6.85	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7193	SAMPLE 39	150.60	152.00	1.40	1	Mist Mountain Formation	MDST	MDST	Mudstone	INTERBURDEN	7.35	17.78	0.46	10.50	0.18	0.01	0.17
UZ7212	CM18-03-GC-18	82.91	89.00	6.09	1	Mist Mountain Formation	CST	MDST	Mudstone	INTERBURDEN	8.31	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7213	CM18-03-GC-19	89.00	94.98	5.98	1	Mist Mountain Formation	CST	MDST	Mudstone	INTERBURDEN	7.90	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7214	CM18-03-GC-20	94.98	98.15	3.17	1	Mist Mountain Formation	CST	MDST	Mudstone	INTERBURDEN	8.36	4.05	8.84	200.90	0.09	<0.01	0.09
UZ7215	CM18-03-GC-21	98.15	103.99	5.84	1	Mist Mountain Formation	CST	MDST	Mudstone	INTERBURDEN	7.94	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7216	CM18-03-GC-25	105.24	107.09	1.85	1	Mist Mountain Formation	CST	MDST	Mudstone	INTERBURDEN	7.51	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
VA9939	11-12-11	36.50	37.15	0.65	1	Mist Mountain Formation	SHL	MDST	Mudstone	Near SEAM	6.34	11.43	<0.08	<1.8	0.15	0.01	0.14
VA9941	11-12-15	39.50	40.03	0.53	1	Mist Mountain Formation	SH/CARB SH	MDST	Mudstone	INTERBURDEN	7.05	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9945	11-12-29	52.50	53.00	0.50	1	Mist Mountain Formation	MST	MDST	Mudstone	INTERBURDEN	6.26	9.34	0.20	4.60	0.08	0.01	0.07
VA9952	11-22-41	123.65	123.90	0.25	1	Mist Mountain Formation	MUDSTONE	MDST	Mudstone	INTERBURDEN	7.30	20.33	0.20	4.60	0.20	<0.01	0.20
UZ7188	SAMPLE 32	139.74	142.40	2.66	1	Mist Mountain Formation	SLST/MDST/SST	MIX	Mix	INTERBURDEN	8.27	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7205	CM18-03-GC-11	52.73	58.52	5.79	1	Mist Mountain Formation	SST/BREC/SST	MIX	Mix	INTERBURDEN	7.17	2.07	<0.08	<1.8	0.02	<0.01	0.02
UZ7221	CM18-03-GC-36	122.50	126.35	3.85	1	Mist Mountain Formation	CCST/CD+B/CST/CD+B/CBB/SLT	MIX	Mix	INTERBURDEN	7.53	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A

Maxxam Sample No	Sample ID	Acid Generation Potential	Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
		Kg CaCO3/T	Kg CaCO3/T	N/A	Kg CaCO3/T	N/A	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
UZ7304	CM18-27-GC-31	3.40	5.50	NONE	2.10	1.60	0.55	34.6	16.6	196	257	22.7	7.9	36	0.53	9.0	1.1	<0.2	4.4	23.6	1.47	0.28	0.26	26	0.30	0.071	4.7	8.6	0.13	274	<0.001
UZ7318	CM18-10-GC-01	28.10	60.00	SLIGHT	31.90	2.10	0.84	20.5	14.9	109	282	28.7	11.0	201	2.46	6.9	0.6	0.8	4.4	61.1	0.24	0.06	0.19	24	2.06	0.104	5.4	8.9	0.73	189	<0.001
UZ7322	CM18-10-GC-05	3.10	69.80	SLIGHT	66.70	22.50	0.99	32.3	15.2	156	252	33.2	11.1	578	3.28	8.0	1.4	<0.2	5.5	61.1	1.48	0.19	0.22	45	2.09	0.125	5.9	12.6	0.80	285	<0.001
UZ7323	CM18-10-GC-06	#N/A	24.00	SLIGHT	#N/A	#N/A	1.94	42.6	21.3	178	433	38.2	11.1	55	0.45	1.9	1.9	<0.2	5.5	52.9	2.33	0.37	0.36	29	0.85	0.127	5.7	9.8	0.26	349	<0.001
UZ7339	CM18-05-GC2-09	#N/A	58.80	SLIGHT	#N/A	#N/A	1.27	29.7	12.4	145	334	34.6	9.3	594	3.63	4.9	1.4	<0.2	5.1	28.3	1.84	0.32	0.16	45	1.51	0.120	7.3	11.9	0.80	240	<0.001
UZ7340	CM18-05-GC2-10	#N/A	85.00	SLIGHT	#N/A	#N/A	1.20	25.7	12.7	125	314	28.6	8.0	406	2.76	5.1	1.6	<0.2	5.4	56.9	1.85	0.21	0.16	41	2.27	0.178	10.6	12.9	0.98	328	<0.001
UZ7342	CM18-05-GC2-12	2.50	7.50	NONE	5.00	3.00	2.19	40.5	20.3	195	392	43.0	11.8	362	1.62	1.9	2.0	<0.2	6.9	22.2	2.45	0.28	0.32	41	0.42	0.131	7.6	11.0	0.17	290	<0.001
UZ7344	CM18-05-GC2-14	#N/A	1.30	NONE	#N/A	#N/A	1.06	46.9	12.5	62.8	422	5.7	1.3	15	0.22	0.2	1.0	1.1	2.4	12.5	1.86	0.19	0.30	23	0.11	0.010	4.2	6.3	0.09	237	<0.001
UZ7348	CM18-05-GC2-18	5.90	49.80	MODERATE	43.90	8.40	3.11	36.0	22.6	182	362	58.5	12.9	106	0.48	6.3	1.9	<0.2	6.4	27.1	2.50	0.42	0.33	24	1.37	0.128	6.6	8.0	0.50	285	<0.001
UZ7360	CM18-05-GC2-30	#N/A	5.30	NONE	#N/A	#N/A	1.21	46.3	19.7	141	266	29.1	8.5	287	1.43	3.1	1.0	<0.2	1.8	11.6	1.48	0.13	0.35	28	0.19	0.009	2.5	7.4	0.17	267	<0.001
UZ7368	CM18-05-GC2-38	11.90	1.50	NONE	-10.40	0.10	0.56	23.8	14.2	97.4	571	20.7	7.6	13	0.38	4.3	0.5	<0.2	1.3	7.8	1.08	0.09	0.18	16	0.05	0.003	3.7	5.2	0.04	398	<0.001
UZ7374	CM18-05-GC2-44	5.30	21.50	NONE	16.20	4.10	0.08	1.72	0.78	8.6	4	3.8	1.1	6060	32.6	1.4	0.1	<0.2	0.3	27.9	<0.01	0.14	<0.02	88	2.47	0.061	17.1	57.3	1.29	293	<0.001
UZ7263	CM18-16-GC-33	24.10	9.50	NONE (H)	-14.60	0.40	1.87	5.56	1.96	11.8	34	3.5	1.7	38	0.08	0.6	0.3	<0.2	0.8	200	0.22	0.21	0.03	6	0.67	0.244	2.4	1.7	0.07	331	0.002
UZ7247	CM18-16-GC-17	#N/A	55.00	SLIGHT	#N/A	#N/A	0.88	26.2	13.4	114	208	20.2	7.7	236	2.34	2.4	1.3	<0.2	4.9	25.7	1.25	0.18	0.16	26	1.65	0.092	6.6	8.9	0.60	367	0.001
UZ7256	CM18-16-GC-26	#N/A	129.00	MODERATE	#N/A	#N/A	1.64	30.3	12.7	136	229	30.3	10.0	523	2.64	3.1	1.6	0.4	4.9	49.2	1.59	0.43	0.18	43	3.58	0.112	6.8	12.3	1.27	299	0.001
UZ7257	CM18-16-GC-27	3.40	104.00	MODERATE	101.00	30.60	1.89	30.7	13.9	139	263	28.6	9.3	934	4.86	2.7	1.8	<0.2	5.4	57.3	1.67	0.31	0.20	46	3.02	0.141	8.1	14.3	1.20	386	0.002
UZ7262	CM18-16-GC-32	#N/A	148.00	MODERATE	#N/A	#N/A	2.59	26.6	10.8	176	449	35.9	7.4	528	2.51	1.7	2.2	<0.2	5.2	74.0	3.37	0.36	0.14	50	4.29	0.207	9.0	17.9	1.38	358	0.002
UZ7264	CM18-16-GC-34	#N/A	76.80	SLIGHT	#N/A	#N/A	2.95	30.3	12.0	212	516	36.4	7.7	648	3.58	1.7	2.6	<0.2	5.7	71.3	4.05	0.35	0.17	58	2.30	0.211	9.6	21.0	0.94	414	0.002
UZ7273	CM18-16-GC-43	5.90	70.30	SLIGHT	64.40	11.90	1.61	21.1	12.2	117	230	25.2	12.0	651	3.21	4.0	1.1	<0.2	5.1	63.0	1.04	0.17	0.15	27	2.32	0.098	6.4	8.7	0.62	398	0.001
UZ7279	CM18-27-GC-06	#N/A	5.50	NONE	#N/A	#N/A	1.07	31.2	12.9	117	222	17.6	3.9	649	5.50	2.6	1.7	<0.2	5.3	108	1.06	0.33	0.25	36	0.37	0.144	11.3	12.5	0.15	441	0.002
UZ7293	CM18-27-GC-20	#N/A	57.80	SLIGHT	#N/A	#N/A	1.61	34.8	14.1	159	331	41.3	10.8	421	2.54	6.9	1.6	0.4	5.3	35.3	2.14	0.24	0.20	46	1.63	0.103	8.0	14.7	0.77	215	0.001
UZ7295	CM18-27-GC-22	#N/A	151.00	MODERATE	#N/A	#N/A	1.39	33.9	13.0	133	232	29.8	9.9	437	2.01	5.4	1.5	<0.2	5.4	58.5	1.60	0.28	0.21	41	3.96	0.112	6.7	13.9	1.41	226	0.001
UZ7296	CM18-27-GC-23	#N/A	114.00	MODERATE	#N/A	#N/A	1.90	37.4	14.7	140	254	29.6	9.5	591	2.73	2.2	1.7	<0.2	5.7	55.8	1.68	0.29	0.24	46	3.48	0.109	8.1	14.4	1.22	236	0.002
UZ7301	CM18-27-GC-28	1.90	92.80	SLIGHT	90.90	48.80	3.45	26.4	10.6	168	494	40.5	6.7	384	2.00	1.4	2.5	<0.2	5.0	68.3	3.88	0.27	0.14	49	2.87	0.191	9.5	20.0	1.09	288	0.002
UZ7345	CM18-05-GC2-15	2.80	55.80	SLIGHT	53.00	19.90	1.76	32.0	13.8	161	384	34.6	8.7	353	2.90	2.4	1.8	0.6	5.6	35.2	2.49	0.32	0.23	42	1.46	0.110	7.9	13.1	0.67	317	<0.001
UZ7347	CM18-05-GC2-17	#N/A	79.30	MODERATE	#N/A	#N/A	1.69	31.8	14.9	162	329	35.7	10.1	652	4.20	3.8	1.8	<0.2	5.7	68.0	2.13	0.22	0.25	52	2.15	0.163	9.1	16.1	1.05	324	0.001
UZ7233	CM18-03-GC-51	#N/A	74.30	SLIGHT	#N/A	#N/A	1.14	29.2	14.6	123	198	28.5	10.2	560	3.21	6.6	1.5	0.7	5.5	34.8	1.18	0.22	0.20	36	2.05	0.101	6.1	11.0	1.04	305	<0.001
UZ7238	CM18-03-GC-57	8.40	4.80	NONE	-3.60	0.60	1.14	27.3	14.7	181	296	26.8	12.6	47	0.84	3.9	0.9	<0.2	4.4	15.5	1.55	0.25	0.21	19	0.24	0.062	5.1	6.2	0.13	384	<0.001
UZ7291	CM18-27-GC-18	1.30	8.50	NONE	7.20	6.50	1.03	30.0	12.4	169	303	23.4	6.2	103	1.26	4.0	1.3	1.1	4.1	21.6	2.14	0.17	0.16	28	0.34	0.073	7.0	11.0	0.17	184	0.001
UZ7307	CM18-27-GC-34	1.30	5.50	NONE	4.20	4.20	0.95	35.5	16.7	124	240	10.8	5.0	80	1.66	1.4	1.2	1.5	3.9	52.3	1.24	0.15	0.26	25	0.27	0.068	4.9	8.9	0.21	275	0.001
UZ7326	CM18-10-GC-31	8.10	9.00	NONE	0.90	1.10	1.40	28.8	15.0	145	366	29.1	11.1	87	1.17	5.1	1.2	<0.2	4.4	58.7	1.86	0.18	0.18	27	0.44	0.114	6.2	10.3	0.14	482	<0.001
UZ7341	CM18-05-GC2-11	#N/A	74.50	SLIGHT	#N/A	#N/A	1.43	28.0	14.0	161	300	29.6	9.0	392	1.82	3.2	1.5	<0.2	4.9	35.0	1.76	0.26	0.18	37	1.97	0.120	7.9	10.8	0.83	235	<0.001
UZ7166	SAMPLE 1	#N/A	-3.80	NONE	#N/A	#N/A	3.51	25.7	21.7	39.0	433	5.9	0.9	11	0.69	7.4	2.6	2.4	7.2	32.1	0.81	0.87	0.38	73	0.07	0.073	9.6	17.6	0.03	222	0.001
UZ7167	SAMPLE 2	#N/A	-2.50	NONE	#N/A	#N/A	3.00	34.5	24.1	39.7	527	7.2	0.9	10	0.44	4.8	2.3	2.4	7.8	51.6	1.15	0.77	0.42	60	0.05	0.059	12.3	17.9	0.04	274	0.001
UZ7172	SAMPLE 9	#N/A	2.00	NONE	#N/A	#N/A	1.90	32.4	15.5	218	381	41.9	11.1	58	0.47	3.3	1.5	1.4	5.2	30.6	2.19	0.25	0.21	28	0.20	0.098	8.5	8.1	0.04	304	0.001
UZ7177	SAMPLE 17	2.20	48.50	SLIGHT	46.30	22.00	1.75	37.9	19.3	182	334	38.7	11.6	385	2.66	5.0	1.7	0.5	6.4	51.2	2.01	0.32	0.30	53	1.45	0.116	8.8	13.8	0.79	374	0.001
UZ7178	SAMPLE 20	#N/A	1.50	NONE	#N/A	#N/A	0.97	54.1	17.5	136	433	7.4	1.5	15	0.27	1.8	0.9	0.8	1.7	10.1	3.08	0.32	0.40	33	0.09	0.002	2.7	8.7	0.08	350	<0.001
UZ7179	SAMPLE 21	1.30	49.00	SLIGHT	47.70	37.70	1.57	37.7	16.2	196	424	36.1	9.9	325	2.51	2.4	2.0	<0.2	6.1	48.5	2.74	0.50	0.27	50	1.36	0.117	8.0	13.9	0.67	437	0.001
UZ7180	SAMPLE 22	#N/A	102.00	MODERATE	#N/A	#N/A	1.53	34.5	15.2	168	361	36.7	9.7	345	2.64	3.5	1.8	0.5	5.7	72.7	2.38	0.45	0.26	54	3.63	0.130	9.1	14.6	0.86	433	0.001
UZ7181	SAMPLE 23	#N/A	73.50	SLIGHT	#N/A	#N/A	3.31	42.4	20.1	203	387	51.5	12.7	284	0.94	10.4	2.9	0.4	7.6	79.2	2.97	0.78	0.35	47	2.11	0.193	11.5	15.1	0.84	572	0.002
UZ7182	SAMPLE 25	1.60	1.00	NONE	-0.60	0.60	0.54	30.5	15.5	44.3	327	5.4	1.1	14	0.33	4.3	0.7	<0.2	1.2	11.0	0.94	0.23	0.33	19	0.11	0.002	1.9				

Maxxam Sample No	Sample ID	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S	Flourine (F)
		ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm
UZ7304	CM18-27-GC-31	<20	0.93	0.013	0.33	<0.1	3.9	0.05	86	0.9	0.05	2.3	0.10	#N/A
UZ7318	CM18-10-GC-01	<20	0.85	0.013	0.38	<0.1	6.0	<0.02	165	1.3	0.06	2.2	0.79	639
UZ7322	CM18-10-GC-05	<20	0.90	0.010	0.35	<0.1	7.2	0.05	126	1.3	0.05	2.3	0.07	#N/A
UZ7323	CM18-10-GC-06	34	0.83	0.008	0.33	<0.1	7.1	<0.02	220	3.2	0.09	2.1	0.07	#N/A
UZ7339	CM18-05-GC2-09	<20	0.62	0.005	0.27	<0.1	6.6	0.06	109	1.3	0.04	1.6	0.08	#N/A
UZ7340	CM18-05-GC2-10	<20	0.68	0.004	0.29	<0.1	6.2	0.07	90	1.3	0.06	1.8	0.06	#N/A
UZ7342	CM18-05-GC2-12	<20	0.83	0.007	0.38	<0.1	6.5	0.05	185	2.2	0.07	2.5	0.07	#N/A
UZ7344	CM18-05-GC2-14	<20	0.56	0.008	0.26	<0.1	4.4	0.03	152	2.2	0.07	1.5	0.02	#N/A
UZ7348	CM18-05-GC2-18	<20	0.70	0.006	0.29	<0.1	6.4	0.02	247	3.8	0.06	1.7	0.13	#N/A
UZ7360	CM18-05-GC2-30	33	0.88	0.007	0.32	<0.1	6.1	0.03	111	1.8	0.05	2.0	0.09	#N/A
UZ7368	CM18-05-GC2-38	33	0.50	0.002	0.27	<0.1	2.5	<0.02	156	1.4	0.03	1.3	0.24	#N/A
UZ7374	CM18-05-GC2-44	<20	0.03	0.021	<0.001	<0.1	65.5	<0.02	<5	<0.1	<0.02	0.6	<0.02	#N/A
UZ7263	CM18-16-GC-33	<20	0.18	0.004	0.03	<0.1	1.7	<0.02	15	0.5	0.03	0.4	0.05	#N/A
UZ7247	CM18-16-GC-17	<20	0.55	0.008	0.24	<0.1	4.6	0.05	84	0.6	0.04	1.4	0.05	#N/A
UZ7256	CM18-16-GC-26	<20	0.55	0.033	0.22	<0.1	6.9	0.04	94	0.8	0.03	1.5	0.08	#N/A
UZ7257	CM18-16-GC-27	<20	0.76	0.022	0.27	<0.1	6.6	<0.02	113	1.5	0.05	1.9	0.06	#N/A
UZ7262	CM18-16-GC-32	<20	0.80	0.019	0.31	<0.1	6.2	0.04	112	2.9	0.05	1.8	0.04	#N/A
UZ7264	CM18-16-GC-34	<20	0.94	0.027	0.32	<0.1	7.3	0.03	129	4.0	0.05	2.2	0.07	#N/A
UZ7273	CM18-16-GC-43	<20	0.66	0.081	0.26	<0.1	5.2	0.05	59	0.7	0.04	1.6	0.16	#N/A
UZ7279	CM18-27-GC-06	<20	0.81	0.005	0.30	<0.1	4.9	0.07	115	1.3	0.04	2.0	<0.02	#N/A
UZ7293	CM18-27-GC-20	<20	0.84	0.008	0.31	<0.1	7.4	0.08	108	1.4	0.05	2.2	0.06	#N/A
UZ7295	CM18-27-GC-22	<20	0.82	0.009	0.31	<0.1	6.4	0.05	93	1.0	0.03	2.1	0.06	#N/A
UZ7296	CM18-27-GC-23	<20	0.80	0.012	0.30	<0.1	7.0	0.04	100	1.3	0.05	2.1	0.06	752
UZ7301	CM18-27-GC-28	<20	0.87	0.015	0.33	<0.1	5.9	0.04	119	3.5	0.03	2.0	0.05	#N/A
UZ7345	CM18-05-GC2-15	<20	0.88	0.007	0.34	<0.1	6.4	0.03	136	2.5	0.06	2.2	0.06	#N/A
UZ7347	CM18-05-GC2-17	<20	0.99	0.008	0.37	<0.1	8.7	0.03	153	2.0	0.06	2.4	0.07	#N/A
UZ7233	CM18-03-GC-51	<20	0.74	0.008	0.27	<0.1	6.5	0.06	79	1.0	0.04	1.8	0.10	#N/A
UZ7238	CM18-03-GC-57	<20	0.72	0.005	0.29	<0.1	4.8	0.03	90	1.6	0.05	1.8	0.24	#N/A
UZ7291	CM18-27-GC-18	<20	0.75	0.005	0.27	<0.1	3.3	0.07	100	1.2	0.03	2.1	0.04	#N/A
UZ7307	CM18-27-GC-34	<20	0.81	0.058	0.30	<0.1	4.5	0.03	31	0.8	0.04	2.1	<0.02	693
UZ7326	CM18-10-GC-31	<20	0.82	0.088	0.36	<0.1	4.4	0.05	70	1.9	0.05	2.1	0.22	#N/A
UZ7341	CM18-05-GC2-11	<20	0.72	0.006	0.31	<0.1	6.4	0.04	126	1.3	0.03	1.9	0.06	#N/A
UZ7166	SAMPLE 1	<20	1.05	0.006	0.37	<0.1	7.2	0.10	260	3.9	0.10	2.8	<0.02	#N/A
UZ7167	SAMPLE 2	<20	1.17	0.006	0.39	<0.1	5.5	0.09	267	4.7	0.09	3.2	<0.02	#N/A
UZ7172	SAMPLE 9	<20	0.74	0.005	0.28	<0.1	4.4	0.05	147	1.6	0.06	1.8	0.05	#N/A
UZ7177	SAMPLE 17	<20	1.06	0.009	0.40	<0.1	7.6	0.05	163	1.9	0.06	2.6	0.07	#N/A
UZ7178	SAMPLE 20	<20	0.73	0.007	0.31	<0.1	4.4	<0.02	182	2.8	0.07	1.7	0.03	#N/A
UZ7179	SAMPLE 21	<20	0.87	0.008	0.33	<0.1	7.1	0.04	147	2.2	0.05	2.0	0.05	#N/A
UZ7180	SAMPLE 22	<20	1.00	0.011	0.37	<0.1	7.2	0.03	170	2.0	0.05	2.4	0.06	#N/A
UZ7181	SAMPLE 23	<20	0.91	0.010	0.36	<0.1	9.6	0.03	343	3.2	0.07	2.3	0.14	#N/A
UZ7182	SAMPLE 25	<20	0.72	0.007	0.32	<0.1	3.4	0.04	87	1.1	0.06	1.6	<0.02	#N/A
UZ7183	SAMPLE 26	<20	0.62	0.006	0.28	<0.1	4.2	0.04	127	1.1	0.05	1.6	0.06	#N/A
UZ7191	SAMPLE 36	<20	0.73	0.007	0.31	<0.1	4.8	0.04	300	4.1	0.08	1.5	0.17	#N/A
UZ7192	SAMPLE 38	<20	0.68	0.005	0.14	<0.1	6.0	<0.02	317	2.1	0.06	1.4	0.15	#N/A
UZ7193	SAMPLE 39	<20	0.57	0.008	0.25	<0.1	5.6	<0.02	131	1.2	0.04	1.6	0.07	574
UZ7212	CM18-03-GC-18	<20	0.70	0.005	0.28	<0.1	6.7	0.07	107	1.6	0.05	2.0	0.04	#N/A
UZ7213	CM18-03-GC-19	<20	1.13	0.008	0.40	<0.1	6.4	0.08	87	1.4	0.05	2.8	0.07	838
UZ7214	CM18-03-GC-20	<20	0.79	0.007	0.30	<0.1	7.9	0.07	111	1.3	0.05	2.0	0.07	#N/A
UZ7215	CM18-03-GC-21	<20	0.82	0.005	0.33	<0.1	6.7	0.05	160	1.7	0.06	2.1	0.07	#N/A
UZ7216	CM18-03-GC-25	<20	0.90	0.007	0.34	<0.1	4.2	0.05	192	2.5	0.08	2.4	0.06	#N/A
VA9939	11-12-11	<20	0.63	0.005	0.30	<0.1	3.5	0.04	150	1.9	0.08	1.2	0.07	#N/A
VA9941	11-12-15	<20	1.53	0.011	0.55	<0.1	4.0	0.03	87	1.5	0.04	3.6	<0.02	#N/A
VA9945	11-12-29	<20	0.79	0.008	0.25	<0.1	4.7	0.04	32	1.4	0.05	1.9	0.02	748
VA9952	11-22-41	<20	0.69	0.009	0.21	<0.1	5.2	0.02	204	4.3	0.04	1.4	0.08	525
UZ7188	SAMPLE 32	<20	0.81	0.007	0.32	<0.1	7.9	0.05	126	0.9	0.06	1.9	0.04	#N/A
UZ7205	CM18-03-GC-11	<20	0.71	0.006	0.27	<0.1	7.3	0.06	124	1.0	0.05	1.9	<0.02	#N/A
UZ7221	CM18-03-GC-36	<20	0.77	0.006	0.32	<0.1	4.1	0.05	170	2.1	0.04	1.9	0.13	#N/A

Maxxam Sample No	Sample ID	From (m)	To (m)	Length (m)	No. of samples	Formation	Lithology Code	Lithology Code Graphing	Lithology	Location Type	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)
											pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%
UZ7225	CM18-03-GC-40	142.95	145.35	2.40	1	Mist Mountain Formation	CCST/CD/CST/SST/SLT	MIX	Mix	INTERBURDEN	7.95	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7228	CM18-03-GC-44	146.88	147.22	0.34	1	Mist Mountain Formation	CCST/HCST/SLT	MIX	Mix	INTERBURDEN	7.65	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7232	CM18-03-GC-50	161.75	167.30	5.55	1	Mist Mountain Formation	CCST/SST/CST/SLT	MIX	Mix	INTERBURDEN	8.21	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7240	CM18-03-GC-59	190.65	191.40	0.75	1	Mist Mountain Formation	CST/CD+B/CCST	MIX	Mix	INTERBURDEN	6.59	10.99	3.10	70.50	2.53	0.03	2.50
UZ7248	CM18-16-GC-18	84.78	90.18	5.40	1	Mist Mountain Formation	SLT/CST/SST	MIX	Mix	INTERBURDEN	8.56	1.73	2.58	58.60	0.05	<0.01	0.05
UZ7252	CM18-16-GC-22	103.98	106.58	2.60	1	Mist Mountain Formation	CD/ST/CBD/CD+B	MIX	Mix	SEAM	6.82	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7258	CM18-16-GC-28	124.03	124.51	0.48	1	Mist Mountain Formation	CD+B/CCST/CDB/CD+B	MIX	Mix	SEAM	7.82	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7259	CM18-16-GC-29	124.51	128.53	4.02	1	Mist Mountain Formation	CST/CCST/SLT/SST	MIX	Mix	INTERBURDEN	8.15	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7260	CM18-16-GC-30	128.53	131.53	3.00	1	Mist Mountain Formation	SST/SLT/CST	MIX	Mix	INTERBURDEN	8.11	3.11	6.60	150.00	0.08	0.01	0.07
UZ7268	CM18-16-GC-38	141.58	143.48	1.90	1	Mist Mountain Formation	CCST/CST/CDB/CD+B	MIX	Mix	SEAM	7.95	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7269	CM18-16-GC-39	143.48	148.48	5.00	1	Mist Mountain Formation	CCST/CD+B/SLT/CST	MIX	Mix	INTERBURDEN	8.81	6.45	3.48	79.10	0.13	<0.01	0.13
UZ7289	CM18-27-GC-16	82.03	85.48	3.45	1	Mist Mountain Formation	CD&B/ST/CDB/CCST	MIX	Mix	SEAM	7.13	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7294	CM18-27-GC-21	98.58	102.48	3.90	1	Mist Mountain Formation	SLT/CST/SST	MIX	Mix	INTERBURDEN	8.41	2.75	2.70	61.40	0.05	<0.01	0.05
UZ7299	CM18-27-GC-26	115.78	118.90	3.12	1	Mist Mountain Formation	CST/SLT/ST	MIX	Mix	INTERBURDEN	7.95	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7309	CM18-27-GC-36	165.13	169.38	4.25	1	Mist Mountain Formation	SST/CST/CD	MIX	Mix	INTERBURDEN	9.49	3.99	6.13	139.30	0.17	<0.01	0.17
UZ7311	CM18-27-GC-38	172.78	176.00	3.22	1	Mist Mountain Formation	SST/CST/CCST/CDB	MIX	Mix	INTERBURDEN	9.08	5.66	3.22	73.20	0.38	<0.01	0.38
UZ7319	CM18-10-GC-02	16.33	20.83	4.50	1	Mist Mountain Formation	ST/SST/SLT	MIX	Mix	INTERBURDEN	8.36	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7321	CM18-10-GC-04	25.98	29.55	3.57	1	Mist Mountain Formation	CST/SST/SLT	MIX	Mix	INTERBURDEN	8.44	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7356	CM18-05-GC2-26	101.53	109.29	7.76	1	Mist Mountain Formation	CDB/CST/ST/SLT	MIX	Mix	INTERBURDEN	8.01	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7362	CM18-05-GC2-32	120.88	121.58	0.70	1	Mist Mountain Formation	CDB/CCST/CD+B	MIX	Mix	SEAM	7.94	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7367	CM18-05-GC2-37	131.38	132.06	0.68	1	Mist Mountain Formation	CDB/CST/CD+B	MIX	Mix	SEAM	7.98	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7370	CM18-05-GC2-40	136.82	142.82	6.00	1	Mist Mountain Formation	SST/SLT/CST/SST	MIX	Mix	INTERBURDEN	6.88	1.90	0.86	19.60	0.34	0.01	0.33
UZ7168	SAMPLE 4	30.00	30.20	0.20	1	Mist Mountain Formation	CARB SILTSTONE	SLT	Siltstone	Near SEAM	5.13	8.30	<0.08	<1.8	0.11	0.02	0.09
UZ7169	SAMPLE 5	30.20	32.65	2.45	1	Mist Mountain Formation	CARB SILTSTONE	SLT	Siltstone	INTERBURDEN	5.75	#N/A	#N/A	#N/A	#N/A	0.02	#N/A
UZ7187	SAMPLE 31	139.54	139.74	0.20	1	Mist Mountain Formation	SLST	SLT	Siltstone	Near SEAM	6.65	2.15	<0.08	<1.8	0.05	0.02	0.03
UZ7189	SAMPLE 33	142.40	142.60	0.20	1	Mist Mountain Formation	SLST	SLT	Siltstone	Near SEAM	7.70	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7208	CM18-03-GC-14	64.97	68.17	3.20	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.47	2.06	0.39	8.90	0.03	<0.01	0.03
UZ7209	CM18-03-GC-15	68.17	74.11	5.94	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.97	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7210	CM18-03-GC-16	74.11	79.86	5.75	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	8.02	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7211	CM18-03-GC-17	79.86	82.91	3.05	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.90	1.85	2.08	47.30	0.05	<0.01	0.05
UZ7226	CM18-03-GC-41	145.35	145.55	0.20	1	Mist Mountain Formation	SLT	SLT	Siltstone	Near SEAM	7.98	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7227	CM18-03-GC-43	146.61	146.88	0.27	1	Mist Mountain Formation	SLT	SLT	Siltstone	Near SEAM	7.69	1.34	0.13	3.00	0.04	<0.01	0.04
UZ7235	CM18-03-GC-53	174.85	175.05	0.20	1	Mist Mountain Formation	SLT	SLT	Siltstone	Near SEAM	6.31	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
UZ7272	CM18-16-GC-42	159.55	159.55	5.77	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	9.24	3.33	7.15	162.50	0.13	<0.01	0.13
UZ7280	CM18-27-GC-07	43.48	47.48	4.00	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	6.48	1.29	<0.08	<1.8	0.05	<0.01	0.05
UZ7281	CM18-27-GC-08	47.48	52.88	5.40	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	6.83	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7282	CM18-27-GC-09	52.88	57.48	4.60	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	6.90	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7283	CM18-27-GC-10	57.48	61.98	4.50	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.59	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7287	CM18-27-GC-14	78.48	81.83	3.35	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	8.50	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7288	CM18-27-GC-15	81.83	82.03	0.20	1	Mist Mountain Formation	SLT	SLT	Siltstone	Near SEAM	8.17	2.73	4.47	101.60	0.06	<0.01	0.06
UZ7320	CM18-10-GC-03	20.83	25.98	5.15	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	8.41	3.13	5.92	134.60	0.08	0.01	0.07
UZ7346	CM18-05-GC2-16	69.48	75.48	6.00	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	8.32	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7350	CM18-05-GC2-20	81.48	81.68	0.20	1	Mist Mountain Formation	SLT	SLT	Siltstone	Near SEAM	7.82	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7351	CM18-05-GC2-21	81.68	85.18	3.50	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.55	5.25	0.32	7.30	0.08	<0.01	0.08
UZ7353	CM18-05-GC2-23	85.42	90.98	5.56	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.95	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7359	CM18-05-GC2-29	111.98	117.93	5.95	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	7.80	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7364	CM18-05-GC2-34	121.78	127.38	5.60	1	Mist Mountain Formation	SLT	SLT	Siltstone	INTERBURDEN	8.33	3.22	6.00	136.40	0.09	<0.01	0.09
VA9949	11-12-40	61.00	62.50	1.50	1	Mist Mountain Formation	SILTSTONE	SLT	Siltstone	INTERBURDEN	8.26	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9950	11-12-44	68.50	70.50	2.00	1	Mist Mountain Formation	SILTSTONE	SLT	Siltstone	INTERBURDEN	8.17	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9951	11-12-45	70.50	70.85	0.35	1	Mist Mountain Formation	SILTSTONE	SLT	Siltstone	Near SEAM	5.74	5.83	0.11	2.50	0.59	0.07	0.52
UZ7160	CM18-16-LDC3-38	168.96	174.27	5.31	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.22	2.41	0.92	20.90	0.37	0.01	0.36
UZ7161	CM18-16-LDC3-39	174.27	178.97	4.70	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	9.23	2.58	3.21	73.00	0.11	<0.01	0.11
UZ7162	CM18-16-LDC3-40	178.97	183.52	4.55	1	Morrissey Formation	SST-Morrissey	SST	Sandstone	INTERBURDEN	7.09	0.84	0.31	7.10	0.27	0.01	0.26
UZ7163	CM18-16-LDC3-41	183.52	186.57	3.05	1	Morrissey Formation	SST-Morrissey	SST	Sandstone	INTERBURDEN	7.01	1.21	1.71	38.90	0.38	0.02	0.36
UZ7164	CM18-16-LDC3-42	186.57	189.77	3.20	1	Morrissey Formation	SST-Morrissey	SST	Sandstone	INTERBURDEN	8.12	57.91	2.51	57.10	1.26	<0.01	1.26
UZ7175	SAMPLE 15	52.20	54.95	4.10	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.33	#N/A	#N/A	#N/A	#N/A	<0.02	#N/A
UZ7184	SAMPLE 27	122.00	124.70	4.40	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.38	3.14	6.78	154.10	0.05	<0.01	0.05

Maxxam Sample No	Sample ID	Acid Generation Potential	Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
		Kg CaCO3/T	Kg CaCO3/T	N/A	Kg CaCO3/T	N/A	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
UZ7225	CM18-03-GC-40	#N/A	21.30	SLIGHT	#N/A	#N/A	1.34	34.2	18.3	151	232	33.7	13.3	62	0.55	3.2	1.2	0.2	4.8	19.4	1.25	0.18	0.27	24	0.68	0.067	5.4	7.1	0.29	250	<0.001
UZ7228	CM18-03-GC-44	#N/A	4.00	NONE	#N/A	#N/A	1.64	35.5	14.4	172	486	24.9	5.5	19	0.28	2.2	2.8	<0.2	4.6	33.2	3.45	0.20	0.25	37	0.40	0.142	7.9	15.0	0.09	349	0.001
UZ7232	CM18-03-GC-50	#N/A	50.30	SLIGHT	#N/A	#N/A	1.80	37.1	16.9	149	232	28.9	10.0	282	2.22	2.0	1.5	<0.2	5.2	30.2	1.43	0.24	0.26	35	1.45	0.087	5.6	10.6	0.62	292	<0.001
UZ7240	CM18-03-GC-59	78.10	12.80	NONE	-65.30	0.20	0.89	16.4	12.0	115	251	23.7	9.7	419	5.50	6.1	1.1	<0.2	3.3	16.8	0.53	0.17	0.13	22	0.50	0.077	5.3	7.5	0.39	51.8	0.001
UZ7248	CM18-16-GC-18	1.60	49.80	SLIGHT	48.20	31.10	0.64	20.5	10.8	110	201	20.8	7.6	138	1.30	2.9	1.3	<0.2	4.5	22.8	1.00	0.16	0.10	27	1.33	0.103	6.3	9.2	0.59	400	0.001
UZ7252	CM18-16-GC-22	#N/A	10.30	NONE (H)	#N/A	#N/A	1.09	8.38	5.42	17.4	62	4.0	2.2	90	0.86	1.5	0.9	0.2	1.0	1260	0.15	0.22	0.04	10	0.79	0.467	6.6	2.3	0.12	1650	0.007
UZ7258	CM18-16-GC-28	#N/A	2.80	NONE (H)	#N/A	#N/A	2.21	21.9	8.48	6.4	56	2.4	1.5	6	0.02	0.6	0.9	<0.2	2.2	468	0.08	0.47	0.16	8	0.26	0.197	9.6	1.6	<0.01	897	0.003
UZ7259	CM18-16-GC-29	#N/A	42.50	SLIGHT	#N/A	#N/A	1.21	28.0	12.9	104	212	27.9	9.6	100	1.34	3.7	1.5	<0.2	4.4	28.3	1.34	0.20	0.17	22	1.35	0.086	5.9	7.8	0.49	270	0.001
UZ7260	CM18-16-GC-30	2.20	62.30	SLIGHT	60.10	28.30	0.92	26.4	13.4	115	200	25.6	9.5	888	4.73	7.3	1.5	<0.2	5.7	37.6	1.33	0.19	0.19	35	1.85	0.131	6.7	11.4	0.85	305	0.002
UZ7268	CM18-16-GC-38	#N/A	3.80	NONE	#N/A	#N/A	3.12	38.7	16.1	138	291	31.9	7.0	15	0.34	2.5	1.1	<0.2	2.5	14.8	1.95	0.40	0.25	19	0.11	0.017	2.5	5.3	0.10	207	<0.001
UZ7269	CM18-16-GC-39	4.10	32.30	SLIGHT	28.20	7.90	1.35	33.0	16.1	136	247	30.1	10.0	452	3.02	4.2	1.5	<0.2	5.5	34.6	1.41	0.27	0.21	24	1.02	0.093	6.1	8.5	0.53	356	0.001
UZ7289	CM18-27-GC-16	#N/A	8.00	NONE	#N/A	#N/A	0.76	11.9	4.34	21.7	42	2.9	1.1	741	6.86	1.2	0.4	<0.2	0.9	1030	0.12	0.12	0.09	10	0.73	0.299	6.6	3.4	0.29	1960	0.005
UZ7294	CM18-27-GC-21	1.60	61.30	SLIGHT	59.70	38.30	1.35	31.2	12.2	139	240	28.5	8.5	244	1.17	1.3	1.6	<0.2	5.2	39.9	1.81	0.18	0.19	35	1.78	0.101	7.0	10.6	0.73	210	0.001
UZ7299	CM18-27-GC-26	#N/A	6.50	NONE	#N/A	#N/A	2.27	41.5	13.7	238	504	36.6	7.8	37	0.50	8.2	2.7	<0.2	5.2	51.3	4.27	0.32	0.23	36	0.40	0.124	8.7	13.0	0.10	358	0.001
UZ7309	CM18-27-GC-36	5.30	95.50	SLIGHT	90.20	18.00	1.25	23.1	12.4	112	212	25.3	10.6	554	3.11	5.7	1.1	<0.2	4.3	90.1	1.09	0.24	0.17	28	2.79	0.086	5.1	10.2	0.90	327	0.001
UZ7311	CM18-27-GC-38	11.90	26.00	SLIGHT	14.10	2.20	1.05	17.0	10.4	108	253	24.0	7.5	232	3.44	7.6	1.2	1.0	3.3	58.9	0.79	0.22	0.13	25	0.94	0.114	6.7	13.9	0.52	300	<0.001
UZ7319	CM18-10-GC-02	#N/A	98.80	MODERATE	#N/A	#N/A	1.44	26.2	13.4	122	240	18.9	8.0	440	2.14	2.9	1.3	<0.2	4.4	57.1	1.40	0.17	0.16	32	3.08	0.125	5.0	10.2	0.99	211	<0.001
UZ7321	CM18-10-GC-04	#N/A	146.00	MODERATE	#N/A	#N/A	1.63	25.4	13.6	123	249	29.1	10.4	619	3.12	4.0	1.5	0.3	4.6	75.6	1.46	0.14	0.17	43	4.49	0.140	5.8	12.4	1.35	304	<0.001
UZ7356	CM18-05-GC2-26	#N/A	20.00	SLIGHT	#N/A	#N/A	1.76	37.5	14.6	169	411	33.1	8.9	47	0.42	2.8	1.8	<0.2	5.3	29.2	2.59	0.26	0.25	26	0.74	0.136	7.1	8.6	0.26	360	<0.001
UZ7362	CM18-05-GC2-32	#N/A	2.50	NONE	#N/A	#N/A	0.85	16.7	9.21	26.0	98	1.9	1.1	4	0.05	<0.1	0.5	<0.2	0.6	4.2	0.24	0.17	0.16	14	0.03	0.001	0.8	3.3	0.02	169	0.001
UZ7367	CM18-05-GC2-37	#N/A	1.80	NONE	#N/A	#N/A	0.21	13.7	3.70	8.3	44	1.3	1.1	5	0.03	0.3	0.3	<0.2	0.5	8.0	0.11	0.07	0.06	8	0.02	0.003	1.6	1.4	<0.01	73.5	0.001
UZ7370	CM18-05-GC2-40	10.30	7.30	NONE	-3.00	0.70	1.00	12.2	10.6	98.7	333	22.3	8.9	79	1.54	7.3	1.0	<0.2	3.0	22.0	0.65	0.17	0.10	23	0.36	0.109	5.3	10.8	0.15	246	<0.001
UZ7168	SAMPLE 4	2.80	-2.80	NONE	-5.60	#N/A	1.82	42.0	19.2	189	408	34.5	10.6	44	0.41	6.0	1.1	1.7	1.6	8.0	2.14	0.37	0.31	29	0.02	0.004	1.9	7.9	0.04	222	<0.001
UZ7169	SAMPLE 5	#N/A	0.00	NONE	#N/A	#N/A	2.09	37.1	17.1	202	456	34.4	9.0	93	0.66	3.5	1.6	0.7	2.6	13.1	2.32	0.44	0.27	40	0.08	0.027	3.6	9.6	0.06	264	<0.001
UZ7187	SAMPLE 31	0.90	3.80	NONE	2.90	4.20	0.29	31.6	14.8	137	238	3.1	1.2	31	0.27	0.3	2.0	<0.2	6.5	23.2	1.81	0.12	0.25	21	0.30	0.110	7.5	7.6	0.06	343	0.001
UZ7189	SAMPLE 33	#N/A	8.50	NONE	#N/A	#N/A	1.39	38.7	19.3	104	254	25.7	12.3	40	0.34	2.5	1.6	<0.2	6.1	23.2	1.15	0.33	0.33	23	0.41	0.097	6.8	7.5	0.12	436	0.001
UZ7208	CM18-03-GC-14	0.90	5.00	NONE	4.10	5.60	9.38	29.6	23.0	248	410	95.9	30.9	873	3.90	2.3	1.8	0.6	5.9	50.7	1.66	0.62	0.25	59	0.33	0.094	9.2	15.8	0.12	466	0.001
UZ7209	CM18-03-GC-15	#N/A	58.50	SLIGHT	#N/A	#N/A	1.32	36.8	22.9	225	334	26.8	7.2	556	3.47	1.9	2.0	1.4	6.2	65.4	2.56	0.24	0.22	51	0.97	0.148	12.0	15.6	0.50	601	0.001
UZ7210	CM18-03-GC-16	#N/A	23.30	SLIGHT	#N/A	#N/A	1.36	37.2	19.6	236	331	43.9	11.2	1200	7.23	5.9	1.5	1.4	6.1	70.0	2.48	0.28	0.22	47	0.84	0.164	11.7	13.5	0.39	469	0.002
UZ7211	CM18-03-GC-17	1.60	31.80	SLIGHT	30.20	19.90	2.09	41.3	19.2	209	377	76.5	17.5	289	1.67	5.1	1.9	0.2	6.3	78.8	2.56	0.41	0.22	34	0.99	0.140	10.5	10.8	0.46	470	0.001
UZ7226	CM18-03-GC-41	#N/A	28.80	SLIGHT	#N/A	#N/A	1.13	39.2	16.5	136	221	22.4	9.9	66	0.38	2.4	1.8	0.4	6.1	26.5	1.23	0.25	0.26	25	0.94	0.104	7.0	7.0	0.39	274	0.001
UZ7227	CM18-03-GC-43	1.30	6.30	NONE	5.00	4.80	1.84	24.6	9.24	176	514	7.5	1.4	33	0.31	4.1	2.5	<0.2	4.7	35.2	3.55	0.12	0.12	22	0.43	0.187	9.6	9.8	0.06	517	0.001
UZ7235	CM18-03-GC-53	#N/A	1.30	NONE	#N/A	#N/A	1.18	24.5	17.0	157	229	40.7	23.2	16	1.02	18.0	0.9	<0.2	4.1	11.5	1.34	0.39	0.12	13	0.19	0.062	5.1	4.6	0.04	288	<0.001
UZ7272	CM18-16-GC-42	4.10	112.00	MODERATE	108.00	27.30	0.95	34.1	16.8	129	230	29.5	10.9	664	3.10	5.5	1.5	<0.2	6.2	91.2	1.33	0.19	0.23	37	3.79	0.102	6.8	11.4	1.01	438	0.001
UZ7280	CM18-27-GC-07	1.60	2.80	NONE	1.20	1.80	1.33	34.4	14.2	106	301	21.0	4.9	30	0.50	3.9	1.9	0.5	6.4	86.5	1.34	0.38	0.25	36	0.27	0.110	11.9	10.6	0.04	377	0.001
UZ7281	CM18-27-GC-08	#N/A	2.30	NONE	#N/A	#N/A	1.54	45.3	16.2	150	341	32.5	8.0	217	1.79	6.9	2.1	<0.2	7.4	97.8	2.64	0.40	0.33	52	0.31	0.143	13.5	15.9	0.08	471	0.002
UZ7282	CM18-27-GC-09	#N/A	1.80	NONE	#N/A	#N/A	1.53	33.6	12.0	117	288	17.2	4.3	55	0.59	5.9	1.5	<0.2	4.3	25.0	1.82	0.20	0.19	29	0.17	0.056	7.2	10.0	0.07	215	<0.001
UZ7283	CM18-27-GC-10	#N/A	10.50	NONE	#N/A	#N/A	1.26	39.6	14.7	218	417	27.1	7.5	263	0.99	4.7	1.9	<0.2	5.7	30.7	3.01	0.21	0.27	38	0.55	0.114	8.2	13.5	0.23	287	0.001
UZ7287	CM18-27-GC-14	#N/A	62.30	SLIGHT	#N/A	#N/A	0.74	30.1	14.7	126	216	15.8	5.8	679	3.61	2.0	1.6	<0.2	5.9	35.5	1.34	0.11	0.19	43	1.74	0.129	8.3	13.7	0.93	220	0.002
UZ7288	CM18-27-GC-15	1.90	58.00	SLIGHT	56.10	30.50	0.70	36.2	13.4	115	251	32.3	8.3	755	3.16	7.9	1.7	<0.2	6.1	37.4	1.38	0.28	0.25	49	1.60	0.128	8.0	15.9	0.87	324	0.002
UZ7320	CM18-10-GC-03	2.20	116.00	MODERATE	114.00	52.60	1.67	25.6	13.5	130	254	26.3	9.7	505	2.16	2.5	1.4	0.7	4.9	66.6	1.57	0.19	0.15	36	3.55	0.131	5.7	10.7	1.05		

Maxxam Sample No	Sample ID	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S	Flourine (F)
		ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm
UZ7225	CM18-03-GC-40	<20	0.80	0.006	0.31	<0.1	4.3	0.04	115	1.2	0.05	2.0	0.04	#N/A
UZ7228	CM18-03-GC-44	<20	1.12	0.009	0.42	<0.1	3.9	0.05	149	4.7	0.06	2.3	0.07	#N/A
UZ7232	CM18-03-GC-50	<20	0.77	0.008	0.30	<0.1	5.9	0.03	108	1.6	0.04	1.9	0.08	#N/A
UZ7240	CM18-03-GC-59	<20	0.59	0.004	0.23	<0.1	5.2	0.06	309	0.9	0.02	1.7	2.43	#N/A
UZ7248	CM18-16-GC-18	<20	0.58	0.007	0.24	<0.1	4.4	0.04	59	0.4	<0.02	1.7	0.03	#N/A
UZ7252	CM18-16-GC-22	<20	0.52	0.003	0.03	<0.1	3.9	<0.02	49	0.4	0.06	1.8	0.13	#N/A
UZ7258	CM18-16-GC-28	<20	0.39	0.005	0.03	<0.1	2.9	<0.03	44	0.7	0.08	1.1	0.03	269
UZ7259	CM18-16-GC-29	<20	0.66	0.012	0.24	<0.1	4.4	<0.02	100	0.9	0.03	1.7	0.03	#N/A
UZ7260	CM18-16-GC-30	<20	0.77	0.015	0.28	<0.1	6.2	0.04	91	0.9	0.04	1.9	0.06	#N/A
UZ7268	CM18-16-GC-38	<20	0.52	0.017	0.19	<0.1	4.1	<0.02	141	3.0	0.06	1.4	0.11	#N/A
UZ7269	CM18-16-GC-39	<20	0.63	0.059	0.26	<0.1	4.6	<0.02	96	1.2	0.04	1.6	0.08	#N/A
UZ7289	CM18-27-GC-16	<20	0.56	0.008	0.09	0.1	3.4	<0.02	71	<0.1	0.04	1.4	0.15	#N/A
UZ7294	CM18-27-GC-21	<20	0.81	0.008	0.31	<0.1	5.0	0.04	99	1.3	0.04	1.9	0.04	#N/A
UZ7299	CM18-27-GC-26	<20	0.95	0.010	0.35	<0.1	4.7	0.02	169	4.2	0.05	2.1	0.09	#N/A
UZ7309	CM18-27-GC-36	<20	0.69	0.106	0.28	<0.1	5.5	0.04	63	0.7	0.03	1.6	0.13	#N/A
UZ7311	CM18-27-GC-38	<20	0.64	0.075	0.25	<0.1	4.7	0.02	112	0.8	0.02	1.5	0.29	#N/A
UZ7319	CM18-10-GC-02	<20	0.78	0.009	0.30	<0.1	5.5	<0.02	61	1.1	0.03	1.9	0.09	#N/A
UZ7321	CM18-10-GC-04	<20	0.77	0.010	0.29	<0.1	7.2	0.04	78	1.3	0.05	1.7	0.05	#N/A
UZ7356	CM18-05-GC2-26	53	0.76	0.009	0.31	<0.1	5.5	0.03	133	2.7	0.08	1.8	0.04	#N/A
UZ7362	CM18-05-GC2-32	<20	0.27	0.002	0.10	<0.1	2.6	<0.02	39	0.9	0.03	0.8	0.04	#N/A
UZ7367	CM18-05-GC2-37	<20	0.12	0.004	0.04	<0.1	2.0	<0.02	11	0.3	0.03	0.8	0.06	#N/A
UZ7370	CM18-05-GC2-40	<20	0.55	0.001	0.23	<0.1	4.9	0.05	96	0.9	0.02	1.6	0.31	#N/A
UZ7168	SAMPLE 4	<20	0.73	0.006	0.31	<0.1	6.5	0.03	165	2.0	0.07	1.9	0.07	591
UZ7169	SAMPLE 5	<20	0.77	0.007	0.31	<0.1	5.5	0.02	147	3.0	0.05	2.1	0.07	#N/A
UZ7187	SAMPLE 31	<20	0.90	0.008	0.34	<0.1	2.9	0.06	142	1.3	0.04	2.0	0.04	#N/A
UZ7189	SAMPLE 33	<20	0.95	0.009	0.38	<0.1	3.9	0.04	115	1.5	0.06	2.5	0.04	#N/A
UZ7208	CM18-03-GC-14	<20	0.71	0.004	0.27	<0.1	8.5	0.09	208	2.1	0.06	2.1	<0.02	794
UZ7209	CM18-03-GC-15	<20	0.71	0.003	0.25	<0.1	7.3	0.07	93	1.8	0.04	2.0	<0.02	#N/A
UZ7210	CM18-03-GC-16	<20	0.66	0.005	0.23	<0.1	7.2	0.09	88	1.3	0.05	1.8	<0.02	#N/A
UZ7211	CM18-03-GC-17	<20	0.75	0.003	0.28	<0.1	4.9	0.09	123	1.8	0.03	2.1	0.05	#N/A
UZ7226	CM18-03-GC-41	<20	0.84	0.007	0.29	<0.1	6.1	0.02	85	1.4	0.06	1.8	0.04	#N/A
UZ7227	CM18-03-GC-43	<20	0.74	0.007	0.25	<0.1	3.3	0.06	154	2.5	0.03	1.4	0.02	#N/A
UZ7235	CM18-03-GC-53	<20	0.68	0.006	0.21	<0.1	3.0	0.08	454	1.5	0.04	1.6	1.12	#N/A
UZ7272	CM18-16-GC-42	<20	0.75	0.101	0.31	<0.1	8.2	0.06	72	1.0	0.05	1.8	0.11	#N/A
UZ7280	CM18-27-GC-07	<20	0.84	0.004	0.31	<0.1	5.3	0.15	175	1.4	0.05	2.3	0.04	#N/A
UZ7281	CM18-27-GC-08	<20	0.99	0.004	0.34	<0.1	6.8	0.10	161	1.7	0.06	2.6	0.02	#N/A
UZ7282	CM18-27-GC-09	<20	0.75	0.004	0.26	<0.1	4.0	0.07	138	1.5	0.04	2.0	<0.02	#N/A
UZ7283	CM18-27-GC-10	<20	0.97	0.007	0.35	<0.1	5.4	0.07	139	1.9	0.06	2.4	0.05	#N/A
UZ7287	CM18-27-GC-14	<20	0.86	0.006	0.32	<0.1	6.6	0.07	65	0.7	0.03	2.1	0.02	#N/A
UZ7288	CM18-27-GC-15	<20	0.89	0.008	0.34	<0.1	9.2	0.05	122	1.1	0.05	2.4	0.05	#N/A
UZ7320	CM18-10-GC-03	<20	0.71	0.010	0.27	<0.1	6.1	0.04	59	1.0	0.04	1.8	0.06	#N/A
UZ7346	CM18-05-GC2-16	<20	0.82	0.008	0.31	<0.1	8.0	0.04	116	1.8	0.04	2.1	0.07	#N/A
UZ7350	CM18-05-GC2-20	<20	0.76	0.006	0.31	<0.1	5.8	0.02	201	2.0	0.06	2.2	0.03	#N/A
UZ7351	CM18-05-GC2-21	37	0.74	0.008	0.31	<0.1	4.3	0.03	123	1.5	0.05	1.9	0.05	#N/A
UZ7353	CM18-05-GC2-23	<20	0.78	0.007	0.31	<0.1	5.7	0.08	135	1.4	0.05	2.2	0.14	#N/A
UZ7359	CM18-05-GC2-29	36	0.88	0.008	0.32	<0.1	5.1	0.04	152	1.2	0.05	2.1	0.08	#N/A
UZ7364	CM18-05-GC2-34	<20	0.82	0.007	0.30	<0.1	7.4	0.04	89	0.9	0.05	1.8	0.07	#N/A
VA9949	11-12-40	<20	0.80	0.010	0.29	<0.1	7.4	0.08	57	1.2	0.05	2.1	0.10	#N/A
VA9950	11-12-44	<20	0.63	0.008	0.23	<0.1	5.3	0.06	37	0.7	0.04	1.5	0.13	#N/A
VA9951	11-12-45	<20	1.35	0.016	0.40	<0.1	3.6	0.08	191	0.8	0.03	2.8	0.59	#N/A
UZ7160	CM18-16-LDC3-38	36	0.47	0.067	0.20	0.1	4.0	0.04	145	0.6	0.02	1.1	0.34	#N/A
UZ7161	CM18-16-LDC3-39	20	0.45	0.072	0.21	0.1	3.2	0.03	40	0.9	0.03	1.1	0.09	#N/A
UZ7162	CM18-16-LDC3-40	<20	0.32	0.036	0.13	<0.1	2.7	0.06	89	0.2	<0.02	1.0	0.25	#N/A
UZ7163	CM18-16-LDC3-41	<20	0.34	0.037	0.13	<0.1	5.5	0.06	79	0.2	<0.02	0.9	0.37	#N/A
UZ7164	CM18-16-LDC3-42	<20	0.10	0.023	0.04	<0.1	2.7	<0.02	183	0.5	0.02	1.5	0.97	#N/A
UZ7175	SAMPLE 15	<20	0.96	0.007	0.37	<0.1	5.5	<0.16	210	2.1	0.06	2.5	0.15	#N/A
UZ7184	SAMPLE 27	<20	0.66	0.006	0.25	<0.1	5.9	0.07	86	0.9	0.02	1.5	0.05	#N/A

Maxxam Sample No	Sample ID	From (m)	To (m)	Length (m)	No. of samples	Formation	Lithology Code	Lithology Code Graphing	Lithology	Location Type	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)
											pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%
UZ7194	11-11-59	121.65	126.40	4.75	1	Mist Mountain Formation	SANDSTONE	SST	Sandstone	INTERBURDEN	5.80	1.04	0.32	7.30	0.27	0.05	0.22
UZ7195	CM18-03-GC-01	3.00	6.71	3.71	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.34	0.81	<0.08	<1.8	<0.02	<0.01	<0.02
UZ7196	CM18-03-GC-02	6.71	9.75	3.05	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.40	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7197	CM18-03-GC-03	9.75	15.31	5.56	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.33	0.67	<0.08	<1.8	<0.02	<0.01	<0.02
UZ7198	CM18-03-GC-04	15.31	19.20	3.89	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.76	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7199	CM18-03-GC-05	19.20	25.30	6.10	1	Mist Mountain Formation	SST/SAND	SST	Sandstone	INTERBURDEN	6.41	0.59	<0.08	<1.8	<0.02	<0.01	<0.02
UZ7200	CM18-03-GC-06	25.30	29.15	3.85	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.75	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7201	CM18-03-GC-07	29.15	35.20	6.05	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.92	0.53	<0.08	<1.8	<0.02	<0.01	<0.02
UZ7202	CM18-03-GC-08	35.20	41.14	5.94	1	Mist Mountain Formation	SST/BREC/SST	SST	Sandstone	INTERBURDEN	6.77	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7203	CM18-03-GC-09	41.14	46.63	5.49	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.74	1.60	1.30	29.60	<0.02	<0.01	<0.02
UZ7204	CM18-03-GC-10	46.63	52.73	6.10	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.24	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7206	CM18-03-GC-12	58.52	64.62	6.10	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.77	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7207	CM18-03-GC-13	64.62	64.97	0.35	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.82	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7224	CM18-03-GC-39	137.20	142.95	5.75	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.42	2.85	4.13	93.90	0.04	<0.01	0.04
UZ7237	CM18-03-GC-56	176.55	182.15	5.60	1	Mist Mountain Formation	SLT/SST	SST	Sandstone	INTERBURDEN	7.42	2.83	1.66	37.70	0.38	0.01	0.37
UZ7239	CM18-03-GC-58	185.30	190.65	5.35	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.40	1.44	0.86	19.60	0.44	0.02	0.42
UZ7249	CM18-16-GC-19	90.18	96.38	6.20	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.50	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7250	CM18-16-GC-20	96.38	102.48	6.10	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.42	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7251	CM18-16-GC-21	102.48	103.98	1.50	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.79	2.18	0.56	12.70	0.09	<0.01	0.09
UZ7270	CM18-16-GC-40	148.48	153.78	5.30	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	9.27	2.31	5.64	128.20	0.06	<0.01	0.06
UZ7271	CM18-16-GC-41	153.78	153.78	5.30	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	9.23	1.91	3.58	81.40	0.09	<0.01	0.09
UZ7278	CM18-27-GC-05	34.08	37.48	3.40	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.98	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7308	CM18-27-GC-35	159.48	165.13	5.65	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	9.44	2.46	5.10	115.90	0.06	<0.01	0.06
UZ7310	CM18-27-GC-37	169.38	172.78	3.40	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.49	1.73	0.19	4.30	0.24	<0.01	0.24
UZ7312	CM18-27-GC-39	176.00	181.08	5.08	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	9.23	2.26	3.29	74.80	0.28	<0.01	0.28
UZ7313	CM18-27-GC-40	181.08	184.57	3.49	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.81	1.50	2.24	50.90	0.48	<0.01	0.48
UZ7314	CM18-27-GC-41	184.57	184.77	0.20	1	Mist Mountain Formation	SST	SST	Sandstone	Near SEAM	8.77	6.92	4.36	99.10	1.12	<0.01	1.12
UZ7324	CM18-10-GC-29	96.57	96.72	0.15	1	Mist Mountain Formation	SST	SST	Sandstone	Near SEAM	6.63	5.61	0.14	3.20	0.77	0.01	0.76
UZ7325	CM18-10-GC-30	97.33	101.33	4.00	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.87	1.70	0.95	21.60	0.33	<0.01	0.33
UZ7327	CM18-10-GC-32	104.97	110.03	5.06	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.56	1.43	0.64	14.60	0.35	0.02	0.33
UZ7328	CM18-10-GC-33	110.03	116.15	6.12	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.25	1.35	1.73	39.30	0.68	0.03	0.65
UZ7329	CM18-10-GC-34	116.15	121.43	5.28	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.88	1.14	1.44	32.70	0.21	0.03	0.18
UZ7330	CM18-10-GC-35	121.43	125.83	4.40	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.46	1.06	1.35	30.70	0.97	0.08	0.89
UZ7331	CM18-05-GC2-01	5.85	9.03	3.18	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	5.98	0.52	<0.08	<1.8	0.05	<0.01	0.05
UZ7332	CM18-05-GC2-02	9.03	13.03	4.00	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.26	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7333	CM18-05-GC2-03	13.03	18.48	5.45	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.48	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7334	CM18-05-GC2-04	18.48	24.40	5.92	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.53	0.87	0.19	4.30	0.04	<0.01	0.04
UZ7335	CM18-05-GC2-05	24.40	29.38	4.98	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.47	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7365	CM18-05-GC2-35	127.38	131.18	3.80	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	8.27	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7369	CM18-05-GC2-39	132.27	136.82	4.55	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	6.07	1.35	0.51	11.60	0.26	0.01	0.25
UZ7371	CM18-05-GC2-41	142.82	147.27	4.45	1	Mist Mountain Formation	SST	SST	Sandstone	INTERBURDEN	7.93	1.04	1.18	26.80	0.35	0.03	0.32
VA9946	11-12-33	56.50	56.75	0.25	1	Mist Mountain Formation	SS	SST	Sandstone	INTERBURDEN	6.38	#N/A	#N/A	#N/A	#N/A	0.01	#N/A
VA9953	11-22-43	124.50	126.50	2.00	1	Mist Mountain Formation	SS	SST	Sandstone	INTERBURDEN	7.71	5.98	0.13	3.00	0.05	<0.01	0.05
UZ7190	SAMPLE 35	143.42	144.00	0.58	1	Mist Mountain Formation	SS & SILTSTONE	SST/SLT	Sandstone/Siltstone	INTERBURDEN	7.51	9.62	0.28	6.40	0.12	0.01	0.11
UZ7222	CM18-03-GC-37	126.35	131.75	5.40	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.25	1.62	2.76	62.70	0.06	<0.01	0.06
UZ7223	CM18-03-GC-38	131.75	137.20	5.45	1	Mist Mountain Formation	SLT/CST/C&B/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.47	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7234	CM18-03-GC-52	171.05	174.85	3.80	1	Mist Mountain Formation	SST/SLT	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.19	3.51	3.23	73.40	0.21	<0.01	0.21
UZ7277	CM18-27-GC-04	29.48	34.08	4.60	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	6.71	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7286	CM18-27-GC-13	72.38	78.48	6.10	1	Mist Mountain Formation	SST/SLT	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.54	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7292	CM18-27-GC-19	90.68	95.48	4.80	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.64	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7336	CM18-05-GC2-06	29.38	34.88	5.50	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.13	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7337	CM18-05-GC2-07	34.88	39.48	4.60	1	Mist Mountain Formation	SST/SLT	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.19	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A

Maxxam Sample No	Sample ID	Acid Generation Potential	Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
		Kg CaCO3/T	Kg CaCO3/T	N/A	Kg CaCO3/T	N/A	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
UZ7194	11-11-59	6.90	4.50	NONE	-2.40	0.70	0.64	4.81	5.76	61.7	262	15.6	5.7	51	0.92	6.7	0.9	<0.2	2.0	19.1	0.33	0.08	0.03	15	0.29	0.084	3.8	7.6	0.07	145	<0.001
UZ7195	CM18-03-GC-01	<0.6	1.50	NONE	1.50	#N/A	1.23	23.8	12.2	136	186	21.0	4.7	59	1.03	2.2	2.2	<0.2	5.4	20.9	1.30	0.22	0.15	33	0.32	0.136	9.3	11.4	0.02	118	0.001
UZ7196	CM18-03-GC-02	#N/A	2.50	NONE	#N/A	#N/A	0.64	21.2	15.8	224	148	10.0	3.4	55	0.64	2.0	2.3	<0.2	5.5	23.4	1.14	0.13	0.16	31	0.31	0.128	9.0	12.8	0.02	160	0.001
UZ7197	CM18-03-GC-03	<0.6	1.00	NONE	1.00	#N/A	1.53	26.7	13.5	197	87	45.2	10.9	138	1.21	5.3	1.7	<0.2	5.5	18.2	1.35	0.33	0.13	28	0.26	0.112	7.8	10.6	0.02	340	0.001
UZ7198	CM18-03-GC-04	#N/A	3.50	NONE	#N/A	#N/A	1.36	28.7	15.7	343	118	58.1	12.9	272	2.22	3.8	1.8	<0.2	5.8	19.6	2.55	0.29	0.14	34	0.30	0.128	9.3	12.5	0.04	265	0.001
UZ7199	CM18-03-GC-05	<0.6	2.00	NONE	2.00	#N/A	0.55	15.1	11.3	208	93	21.4	3.9	98	0.85	4.3	1.4	<0.2	4.4	21.9	1.01	0.22	0.07	24	0.27	0.119	8.3	13.0	0.02	211	0.001
UZ7200	CM18-03-GC-06	#N/A	4.50	NONE	#N/A	#N/A	0.81	13.3	10.6	177	94	18.1	6.4	145	1.26	4.7	1.6	<0.2	3.2	25.1	0.93	0.27	0.05	30	0.33	0.160	8.0	12.6	0.02	221	0.001
UZ7201	CM18-03-GC-07	<0.6	3.80	NONE	3.80	#N/A	1.08	15.9	13.5	232	124	25.7	7.0	233	1.83	4.7	1.4	<0.2	3.4	25.0	1.32	0.34	0.07	34	0.32	0.146	8.0	14.6	0.03	217	0.002
UZ7202	CM18-03-GC-08	#N/A	1.80	NONE	#N/A	#N/A	2.38	36.1	18.6	366	234	57.4	17.4	401	3.53	3.4	1.8	<0.2	6.3	23.4	2.70	0.25	0.22	57	0.31	0.122	8.5	17.7	0.07	210	0.001
UZ7203	CM18-03-GC-09	<0.6	17.50	NONE	17.50	#N/A	1.11	40.6	21.7	256	269	39.0	13.6	747	4.06	6.9	1.6	<0.2	7.3	29.4	1.73	0.25	0.24	41	0.65	0.122	8.6	13.3	0.26	300	0.001
UZ7204	CM18-03-GC-10	#N/A	8.30	NONE	#N/A	#N/A	1.10	39.8	24.9	289	304	37.3	12.1	523	2.67	4.1	1.7	<0.2	7.2	41.7	1.52	0.19	0.26	47	0.50	0.126	9.2	16.0	0.19	299	0.001
UZ7206	CM18-03-GC-12	#N/A	17.00	NONE	#N/A	#N/A	1.36	34.0	28.3	300	246	35.4	12.7	680	4.43	6.6	1.2	<0.2	5.9	23.9	1.30	0.42	0.24	33	0.48	0.077	7.6	9.3	0.38	318	<0.001
UZ7207	CM18-03-GC-13	#N/A	4.80	NONE	#N/A	#N/A	8.27	32.4	22.9	212	326	76.6	24.8	478	2.03	0.8	1.9	1.6	6.6	45.9	1.06	0.32	0.26	47	0.28	0.092	9.0	14.7	0.07	335	0.001
UZ7224	CM18-03-GC-39	1.30	73.80	SLIGHT	72.50	56.80	0.93	26.6	14.2	135	218	25.4	8.8	568	2.44	2.4	1.4	<0.2	5.5	29.9	1.23	0.22	0.17	26	2.12	0.110	6.6	8.5	0.81	215	0.001
UZ7237	CM18-03-GC-56	11.60	9.30	SLIGHT	-2.30	0.80	1.03	12.9	9.59	111	306	22.8	7.6	111	2.30	8.5	1.1	<0.2	2.9	18.9	0.53	0.18	0.09	20	0.40	0.083	5.2	9.4	0.28	260	<0.001
UZ7239	CM18-03-GC-58	13.10	5.80	NONE	-7.30	0.40	0.78	6.71	6.57	59.0	271	14.0	5.9	129	1.66	4.0	1.1	<0.2	2.5	19.9	0.28	0.14	0.04	16	0.40	0.121	5.1	9.2	0.15	316	0.001
UZ7249	CM18-16-GC-19	#N/A	50.80	SLIGHT	#N/A	#N/A	0.94	18.1	10.3	91.4	230	24.4	7.8	123	1.08	6.2	1.3	0.5	4.2	21.7	0.92	0.20	0.10	22	1.46	0.099	5.6	8.4	0.60	298	0.001
UZ7250	CM18-16-GC-20	#N/A	33.80	SLIGHT	#N/A	#N/A	0.77	11.0	7.85	62.5	329	15.0	6.3	138	1.10	8.9	1.1	1.5	2.4	21.6	0.72	0.22	0.05	20	1.04	0.099	4.5	7.8	0.38	185	0.001
UZ7251	CM18-16-GC-21	2.80	7.50	NONE	4.70	2.70	0.78	9.29	7.65	53.2	349	14.2	6.3	111	0.80	9.6	1.1	<0.2	1.8	20.1	0.67	0.31	0.02	16	0.36	0.100	4.1	6.4	0.12	124	0.001
UZ7270	CM18-16-GC-40	1.90	115.00	MODERATE	113.00	60.50	0.75	16.5	9.03	79.3	165	18.7	7.3	235	1.46	2.8	1.3	<0.2	4.2	42.6	0.81	0.16	0.08	22	2.91	0.093	6.7	9.6	1.14	241	0.001
UZ7271	CM18-16-GC-41	2.80	64.80	SLIGHT	62.00	23.10	1.12	19.9	10.9	83.8	259	22.3	9.7	260	1.51	6.7	1.3	<0.2	3.9	42.1	0.94	0.24	0.11	24	1.85	0.105	5.8	9.6	0.71	221	0.001
UZ7278	CM18-27-GC-05	#N/A	2.50	NONE	#N/A	#N/A	1.03	24.1	9.30	109	113	20.5	3.7	79	0.94	3.0	1.7	0.4	5.4	43.0	0.94	0.24	0.16	35	0.30	0.130	10.1	13.4	0.04	201	0.001
UZ7308	CM18-27-GC-35	1.90	79.00	SLIGHT	77.10	41.60	1.57	26.6	12.3	109	184	28.5	9.7	357	2.50	1.6	1.3	0.9	4.9	75.4	1.07	0.23	0.18	33	2.28	0.094	6.7	12.2	0.95	224	0.001
UZ7310	CM18-27-GC-37	7.50	4.80	NONE	-2.70	0.60	0.84	11.6	9.24	109	293	23.9	7.7	85	0.94	9.0	1.3	0.4	3.7	49.8	0.44	0.15	0.07	21	0.33	0.124	7.0	12.2	0.05	342	0.002
UZ7312	CM18-27-GC-39	8.80	43.00	SLIGHT	34.20	4.90	0.99	15.5	10.2	106	252	21.6	8.0	456	2.73	3.8	1.3	0.2	3.8	72.3	0.99	0.23	0.12	28	1.36	0.121	6.4	11.7	0.61	467	0.001
UZ7313	CM18-27-GC-40	15.00	19.80	SLIGHT	4.80	1.30	0.68	5.45	5.85	55.5	221	13.6	6.0	233	2.92	3.1	1.1	0.3	2.6	56.1	0.18	0.12	0.03	19	0.74	0.136	6.9	12.9	0.40	327	0.001
UZ7314	CM18-27-GC-41	35.00	24.50	SLIGHT	-10.50	0.70	0.95	14.7	14.4	116	330	24.1	10.1	648	5.52	8.3	1.3	1.2	3.4	55.5	0.53	0.25	0.12	25	0.89	0.104	6.9	12.6	0.62	325	0.001
UZ7324	CM18-10-GC-29	23.80	-0.80	NONE	-24.60	#N/A	1.78	8.45	8.65	71.1	401	25.3	5.8	62	1.02	46.9	0.3	0.2	0.5	21.4	0.51	0.14	0.04	12	0.03	0.003	1.0	5.3	0.03	203	<0.001
UZ7325	CM18-10-GC-30	10.30	7.50	NONE	-2.80	0.70	0.74	9.51	7.82	98.4	284	21.5	7.5	95	1.57	8.5	1.0	<0.2	3.1	36.0	0.39	0.08	0.05	20	0.32	0.093	5.3	9.1	0.16	281	<0.001
UZ7327	CM18-10-GC-32	10.30	14.00	SLIGHT	3.70	1.40	0.80	5.90	6.62	47.2	342	15.8	4.8	78	1.25	6.4	1.0	<0.2	2.1	48.8	0.31	0.19	0.02	17	0.57	0.129	4.9	10.3	0.16	225	<0.001
UZ7328	CM18-10-GC-33	20.30	15.30	SLIGHT	-5.00	0.80	0.78	4.92	6.00	41.3	293	15.2	6.1	186	2.54	5.7	0.9	<0.2	1.9	50.4	0.18	0.14	<0.02	19	0.76	0.116	5.0	12.9	0.28	206	<0.001
UZ7329	CM18-10-GC-34	5.60	31.80	SLIGHT	26.20	5.70	0.83	6.29	7.26	48.7	333	15.9	5.8	105	1.34	6.1	0.8	<0.2	1.3	61.4	0.29	0.19	0.02	20	1.09	0.099	4.2	11.2	0.32	165	<0.001
UZ7330	CM18-10-GC-35	27.80	35.00	SLIGHT	7.20	1.30	1.07	7.52	8.95	51.3	418	19.2	6.1	122	1.71	7.9	0.9	<0.2	1.7	58.3	0.35	0.26	0.03	21	1.20	0.092	3.8	8.8	0.34	289	<0.001
UZ7331	CM18-05-GC2-01	1.60	2.00	NONE	0.40	1.30	0.67	9.57	7.38	67.6	328	16.6	5.8	62	0.62	8.2	1.1	0.3	2.4	20.0	1.14	0.32	0.03	20	0.24	0.130	5.6	10.5	0.02	157	<0.001
UZ7332	CM18-05-GC2-02	#N/A	14.30	SLIGHT	#N/A	#N/A	0.83	8.79	5.92	66.2	347	15.2	5.9	75	0.81	10.5	1.0	<0.2	2.0	17.8	1.31	0.30	0.03	21	0.51	0.118	4.8	8.9	0.13	121	<0.001
UZ7333	CM18-05-GC2-03	#N/A	12.00	NONE	#N/A	#N/A	1.31	21.7	10.8	135	402	35.3	10.5	109	0.96	5.3	1.4	<0.2	4.1	18.8	2.29	0.25	0.12	27	0.54	0.120	7.1	10.3	0.17	136	<0.001
UZ7334	CM18-05-GC2-04	1.30	5.50	NONE	4.20	4.20	0.67	9.61	7.13	78.9	312	17.8	5.5	81	0.73	6.7	1.1	<0.2	2.5	19.6	1.44	0.24	0.03	25	0.32	0.139	5.7	10.3	0.05	164	<0.001
UZ7335	CM18-05-GC2-05	#N/A	16.30	SLIGHT	#N/A	#N/A	1.08	12.6	8.04	91.7	362	22.0	7.9	223	1.43	8.2	1.2	<0.2	2.7	20.5	1.61	0.39	0.06	25	0.64	0.143	6.1	9.6	0.23	147	<0.001
UZ7365	CM18-05-GC2-35	#N/A	63.50	SLIGHT	#N/A	#N/A	1.18	19.1	11.7	107	227	22.9	11.1	585	3.15	4.5	0.9	<0.2	4.4	30.4	1.06	0.12	0.16	29	1.81	0.087	5.8	8.7	0.67	282	<0.001
UZ7369	CM18-05-GC2-39	7.80	4.50	NONE	-3.30	0.60	0.73	6.33	7.28	84.0	294	19.1	7.1	63	1.20	8.4	0.9	0.3	2.3	18.0	0.41	0.09	0.04	17	0.27	0.083	4.9	8.4	0.10	202	<0.001
UZ7371	CM18-05-GC2-41	10.00	23.50	SLIGHT	13.50	2.40	0.73	5.16	6.12	55.5	294	14.6	7.0	114	1.41	4.0															

Maxxam Sample No	Sample ID	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S	Flourine (F)
		ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm
UZ7194	11-11-59	<20	0.31	0.002	0.13	<0.1	2.4	0.05	117	0.2	<0.02	0.9	0.23	413
UZ7195	CM18-03-GC-01	<20	0.59	0.005	0.22	<0.1	5.6	0.16	86	4.0	0.05	1.6	<0.02	#N/A
UZ7196	CM18-03-GC-02	<20	0.62	0.007	0.23	<0.1	5.1	0.18	61	0.9	0.04	1.8	<0.02	#N/A
UZ7197	CM18-03-GC-03	<20	0.50	0.004	0.18	<0.1	4.6	0.10	113	0.6	0.03	1.5	<0.02	#N/A
UZ7198	CM18-03-GC-04	<20	0.50	0.004	0.19	<0.1	5.5	0.10	102	0.6	0.02	1.5	<0.02	#N/A
UZ7199	CM18-03-GC-05	<20	0.45	0.004	0.16	<0.1	3.3	0.09	92	0.2	<0.02	1.4	<0.02	522
UZ7200	CM18-03-GC-06	<20	0.40	0.004	0.14	<0.1	4.0	0.10	66	0.3	<0.02	1.4	<0.02	#N/A
UZ7201	CM18-03-GC-07	<20	0.43	0.005	0.14	<0.1	4.5	0.09	87	0.6	<0.02	1.3	<0.02	#N/A
UZ7202	CM18-03-GC-08	<20	1.05	0.008	0.36	<0.1	8.9	0.09	114	1.8	0.04	2.6	<0.02	#N/A
UZ7203	CM18-03-GC-09	<20	0.64	0.007	0.24	<0.1	9.0	0.08	123	1.3	0.06	1.8	<0.02	#N/A
UZ7204	CM18-03-GC-10	<20	0.97	0.010	0.37	<0.1	8.6	0.08	131	1.0	0.06	2.5	<0.02	827
UZ7206	CM18-03-GC-12	<20	0.60	0.006	0.23	<0.1	7.3	0.10	133	1.4	0.05	1.5	0.04	#N/A
UZ7207	CM18-03-GC-13	<20	0.77	0.005	0.30	<0.1	6.1	0.13	135	0.8	0.06	2.2	<0.02	#N/A
UZ7224	CM18-03-GC-39	<20	0.55	0.005	0.22	<0.1	5.1	0.05	87	0.8	0.03	1.4	0.03	#N/A
UZ7237	CM18-03-GC-56	<20	0.48	0.003	0.21	<0.1	3.3	0.05	125	0.7	0.03	1.1	0.38	#N/A
UZ7239	CM18-03-GC-58	<20	0.41	0.002	0.16	<0.1	3.0	0.06	86	0.3	<0.02	1.2	0.43	#N/A
UZ7249	CM18-16-GC-19	<20	0.44	0.005	0.18	<0.1	3.7	0.07	98	0.6	0.02	1.3	0.07	#N/A
UZ7250	CM18-16-GC-20	<20	0.35	0.004	0.14	<0.1	2.6	0.04	110	0.6	<0.02	1.0	0.06	#N/A
UZ7251	CM18-16-GC-21	<20	0.23	0.004	0.09	<0.1	2.6	0.03	131	0.4	<0.02	0.8	0.06	#N/A
UZ7270	CM18-16-GC-40	<20	0.44	0.035	0.16	<0.1	4.4	0.03	39	0.4	<0.02	1.1	0.04	#N/A
UZ7271	CM18-16-GC-41	<20	0.45	0.046	0.18	<0.1	4.7	0.07	55	0.5	0.03	1.2	0.07	#N/A
UZ7278	CM18-27-GC-05	<20	0.72	0.003	0.26	<0.1	3.9	0.08	92	0.4	0.05	2.1	<0.02	#N/A
UZ7308	CM18-27-GC-35	<20	0.75	0.077	0.26	<0.1	5.7	0.04	52	0.6	0.03	1.9	0.04	#N/A
UZ7310	CM18-27-GC-37	<20	0.61	0.062	0.24	<0.1	2.9	0.04	103	0.5	<0.02	1.7	0.20	#N/A
UZ7312	CM18-27-GC-39	<20	0.69	0.086	0.27	<0.1	5.1	0.06	66	0.9	0.02	1.7	0.23	#N/A
UZ7313	CM18-27-GC-40	<20	0.51	0.056	0.19	<0.1	4.2	0.08	72	0.2	<0.02	1.5	0.41	#N/A
UZ7314	CM18-27-GC-41	<20	0.64	0.083	0.22	<0.1	5.5	0.06	152	1.0	<0.02	2.0	0.99	#N/A
UZ7324	CM18-10-GC-29	<20	0.28	0.041	0.14	<0.1	1.3	0.08	285	1.5	<0.02	0.9	0.66	#N/A
UZ7325	CM18-10-GC-30	40	0.48	0.053	0.21	<0.1	3.6	0.06	124	0.3	<0.02	1.1	0.29	#N/A
UZ7327	CM18-10-GC-32	<20	0.37	0.034	0.14	<0.1	3.8	0.13	159	0.3	<0.02	1.2	0.36	#N/A
UZ7328	CM18-10-GC-33	<20	0.32	0.031	0.12	<0.1	7.5	0.12	245	0.2	<0.02	0.9	0.71	#N/A
UZ7329	CM18-10-GC-34	<20	0.26	0.026	0.11	<0.1	3.8	0.05	75	0.2	<0.02	0.8	0.22	#N/A
UZ7330	CM18-10-GC-35	<20	0.26	0.030	0.11	<0.1	3.0	0.10	245	0.3	<0.02	0.8	1.01	#N/A
UZ7331	CM18-05-GC2-01	<20	0.32	0.002	0.11	<0.1	2.3	0.14	82	0.6	<0.02	1.2	0.05	371
UZ7332	CM18-05-GC2-02	<20	0.28	0.001	0.11	<0.1	2.7	0.12	93	0.8	<0.02	0.9	0.08	#N/A
UZ7333	CM18-05-GC2-03	<20	0.52	0.004	0.20	<0.1	3.5	0.11	81	1.4	0.03	1.5	0.08	#N/A
UZ7334	CM18-05-GC2-04	<20	0.34	0.003	0.13	<0.1	3.6	0.08	68	0.6	<0.02	1.1	0.03	#N/A
UZ7335	CM18-05-GC2-05	<20	0.37	0.004	0.14	<0.1	4.3	0.08	104	1.1	0.02	1.2	0.06	#N/A
UZ7365	CM18-05-GC2-35	<20	0.73	0.006	0.27	<0.1	5.3	0.03	69	0.9	0.04	1.6	0.17	#N/A
UZ7369	CM18-05-GC2-39	<20	0.44	<0.001	0.17	<0.1	2.9	0.08	141	0.5	<0.02	1.0	0.22	#N/A
UZ7371	CM18-05-GC2-41	<20	0.44	0.002	0.16	<0.1	4.1	0.10	80	0.2	<0.02	1.3	0.32	#N/A
VA9946	11-12-33	<20	0.81	0.012	0.28	<0.1	6.5	0.05	67	1.9	0.07	2.1	0.10	#N/A
VA9953	11-22-43	<20	0.82	0.017	0.36	<0.1	4.3	0.03	81	0.6	0.04	2.0	<0.02	#N/A
UZ7190	SAMPLE 35	<20	0.82	0.008	0.32	<0.1	4.5	0.03	250	5.1	0.06	2.0	0.06	#N/A
UZ7222	CM18-03-GC-37	<20	0.61	0.004	0.22	<0.1	4.3	0.10	101	1.0	0.04	1.6	0.06	#N/A
UZ7223	CM18-03-GC-38	<20	0.58	0.007	0.22	<0.1	6.3	0.06	77	0.8	0.03	1.6	0.04	#N/A
UZ7234	CM18-03-GC-52	<20	0.76	0.009	0.28	<0.1	5.3	0.04	58	0.6	0.02	1.9	0.20	#N/A
UZ7277	CM18-27-GC-04	<20	0.75	0.004	0.28	<0.1	2.9	0.10	79	0.4	0.03	1.9	<0.02	#N/A
UZ7286	CM18-27-GC-13	<20	0.72	0.005	0.28	<0.1	6.7	0.05	95	0.8	0.03	1.9	0.04	#N/A
UZ7292	CM18-27-GC-19	<20	0.72	0.007	0.27	<0.1	5.1	0.05	80	1.0	0.03	1.6	0.03	#N/A
UZ7336	CM18-05-GC2-06	<20	0.57	0.004	0.25	<0.1	7.2	0.05	78	1.0	0.04	1.6	0.07	#N/A
UZ7337	CM18-05-GC2-07	<20	0.57	0.004	0.24	<0.1	5.9	0.06	76	1.7	0.04	1.6	0.03	641

Maxxam Sample No	Sample ID	From (m)	To (m)	Length (m)	No. of samples	Formation	Lithology Code	Lithology Code Graphing	Lithology	Location Type	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)
											pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%
UZ7338	CM18-05-GC2-08	39.48	44.38	4.90	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.26	2.80	5.53	125.70	0.06	<0.01	0.06
UZ7354	CM18-05-GC2-24	90.98	95.93	4.95	1	Mist Mountain Formation	SLT/SST	SST/SLT	Sandstone/Siltstone	INTERBURDEN	8.37	2.20	4.71	107.10	0.05	<0.01	0.05
UZ7355	CM18-05-GC2-25	95.93	101.53	5.60	1	Mist Mountain Formation	SLT/ST	ST/SLT	Stoney Coal/Claystone	INTERBURDEN	8.47	#N/A	#N/A	#N/A	#N/A	<0.01	#N/A
UZ7165	CM18-16-LDC3-43	#N/A	#N/A	#N/A	1	Morrissey Formation	SST-Morrissey	-	-	-	6.95	0.67	0.35	8.00	0.08	0.02	0.06
VC0033	TP18-MD6	#N/A	#N/A	#N/A	1	Fernie Formation?	Rock	-	-	-	8.34	0.78	1.00	22.7	<0.02	<0.01	<0.02
VC0034	BH18-MD2	#N/A	#N/A	#N/A	1	Fernie Formation?	Grab-sandstone	-	-	-	8.76	4.84	15.99	363.4	0.34	<0.01	0.34
VC0035	BH18-12	#N/A	#N/A	#N/A	1	Fernie Formation?	Grab-sandstone	-	-	-	8.69	3.28	7.12	161.8	0.22	0.01	0.21
VC0036	BH18-MD1	#N/A	#N/A	#N/A	1	Fernie Formation?	Grab-sandstone	-	-	-	8.69	3.00	5.65	128.4	0.47	0.01	0.46
VC0038	BH-18-PP2	#N/A	#N/A	#N/A	1	Fernie Formation?	Rock	-	-	-	8.48	5.05	15.11	343.4	0.52	0.03	0.49

Maxxam Sample No	Sample ID	Acid Generation Potential	Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti
		Kg CaCO3/T	Kg CaCO3/T	N/A	Kg CaCO3/T	N/A	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%	ppm	ppm	%	ppm	%
UZ7338	CM18-05-GC2-08	1.90	94.00	SLIGHT	92.10	49.50	1.60	22.9	10.4	124	263	29.7	9.1	573	3.07	2.3	1.3	<0.2	4.6	30.0	1.53	0.26	0.12	40	2.38	0.114	7.7	11.2	1.02	187	<0.001
UZ7354	CM18-05-GC2-24	1.60	84.80	MODERATE	83.20	53.00	0.69	20.8	10.4	95	182	18.8	7.3	322	1.96	2.1	1.1	<0.2	4.5	28.8	1.08	0.12	0.13	28	2.16	0.098	6.2	8.2	0.87	181	<0.001
UZ7355	CM18-05-GC2-25	#N/A	90.00	MODERATE	#N/A	#N/A	1.01	23.0	12.1	108	209	27.2	9.4	365	1.71	2.6	1.2	0.2	4.8	30.5	1.27	0.20	0.16	29	2.41	0.103	6.9	9.4	0.92	244	<0.001
UZ7165	CM18-16-LDC3-43	1.90	6.80	NONE	4.90	3.60	0.43	4.35	4.24	36.5	192	16.9	6.0	93	0.75	3.0	0.7	0.3	1.5	28.8	0.25	0.18	0.02	13	0.38	0.119	3.7	15.3	0.06	285	<0.001
VC0033	TP18-MD6	<0.6	33.0	MODERATE	33.0	#N/A	1.00	7.81	9.07	85.5	94	25.20	10.90	517	2.55	3.60	1.10	<0.2	4.50	46.8	0.38	0.18	0.04	27	1.60	0.16	9.20	22.90	0.17	202	0.001
VC0034	BH18-MD2	10.6	366	STRONG	356	34.6	0.71	5.42	9.43	29	58	3.50	5.10	1780	1.61	4.10	0.50	<0.2	4.40	203	0.11	0.08	0.11	9	13.40	0.07	8.40	6.60	0.75	123	0.001
VC0035	BH18-12	6.6	169	STRONG	163	25.7	1.51	12.10	9.23	88.3	299	18.40	6.00	264	1.83	5.80	1.10	<0.2	3.50	118	0.82	0.22	0.08	22	5.43	0.12	6.70	9.50	1.33	161	<0.001
VC0036	BH18-MD1	14.4	140	STRONG	126	9.7	1.65	11.30	8.71	73.8	373	19.20	4.20	226	1.77	4.60	1.30	<0.2	3.70	112	0.59	0.17	0.09	22	4.53	0.14	6.70	12.30	1.14	214	<0.001
VC0038	BH-18-PP2	15.3	361	STRONG	346	23.6	0.68	13.50	13.40	62.4	58	14.90	9.70	563	2.17	6.20	0.50	<0.2	4.60	296	0.24	0.11	0.27	22	14.30	0.06	7.90	16.90	1.07	576	0.001

Maxxam Sample No	Sample ID	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S	Flourine (F)
		ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm
UZ7338	CM18-05-GC2-08	<20	0.52	0.005	0.22	<0.1	6.0	0.06	107	1.1	0.04	1.4	0.06	#N/A
UZ7354	CM18-05-GC2-24	34	0.55	0.007	0.22	<0.1	4.7	0.04	70	0.6	<0.02	1.4	0.03	#N/A
UZ7355	CM18-05-GC2-25	<20	0.63	0.005	0.26	<0.1	5.4	0.06	78	0.6	0.03	1.7	0.04	#N/A
UZ7165	CM18-16-LDC3-43	<20	0.20	0.023	0.09	<0.1	4.2	<0.02	38	0.2	<0.02	0.6	0.08	352
VC0033	TP18-MD6	<20	0.54	0.004	0.20	<0.05	5.10	0.05	44	0.10	<0.02	1.60	<0.02	611
VC0034	BH18-MD2	<20	0.79	0.02	0.24	<0.05	3.70	0.07	10	0.10	0.02	1.50	0.29	#N/A
VC0035	BH18-12	<20	0.53	0.01	0.25	<0.05	4.30	0.04	40	1.00	0.02	1.20	0.18	735
VC0036	BH18-MD1	<20	0.54	0.01	0.25	<0.05	4.10	0.05	77	1.30	0.03	1.20	0.42	#N/A
VC0038	BH-18-PP2	<20	1.52	0.02	0.34	<0.05	5.80	0.08	20	0.60	0.07	3.20	0.44	#N/A

Table 1: ABA Test Results for project CROWN MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Paste pH	Total Carbon	CO2
	Units	pH Units	wt%	wt%
UZ7160	CM18-16-LDC3-38	8.22	2.41	0.92
UZ7161	CM18-16-LDC3-39	9.23	2.58	3.21
UZ7162	CM18-16-LDC3-40	7.09	0.84	0.31
UZ7163	CM18-16-LDC3-41	7.01	1.21	1.71
UZ7164	CM18-16-LDC3-42	8.12	57.91	2.51
UZ7165	CM18-16-LDC3-43	6.95	0.67	0.35
UZ7166	SAMPLE 1	5.38		
UZ7167	SAMPLE 2	5.45		
UZ7168	SAMPLE 4	5.13	8.30	<0.08
UZ7169	SAMPLE 5	5.75		
UZ7170	SAMPLE 6	6.26		
UZ7171	SAMPLE 8	5.40	13.08	<0.08
UZ7172	SAMPLE 9	5.80		
UZ7173	SAMPLE 10+11	6.18	9.68	2.13
UZ7175	SAMPLE 15	6.33		
UZ7176	SAMPLE 16	6.32		
VA9769	SAMPLE 16 SPLIT DUP	6.36		
UZ7177	SAMPLE 17	8.06	4.41	3.97
UZ7178	SAMPLE 20	7.48		
UZ7179	SAMPLE 21	8.07	5.16	3.37
UZ7180	SAMPLE 22	8.32		
UZ7181	SAMPLE 23	7.96		
UZ7182	SAMPLE 25	7.63	5.46	0.25
UZ7183	SAMPLE 26	7.55		
UZ7184	SAMPLE 27	8.38	3.14	6.78
UZ7185	SAMPLE 28	8.21		
UZ7186	SAMPLE 29	7.50		
UZ7187	SAMPLE 31	6.65	2.15	<0.08
UZ7188	SAMPLE 32	8.27		
UZ7189	SAMPLE 33	7.70		
UZ7190	SAMPLE 35	7.51	9.62	0.28
VD9727	SAMPLE 35 SPLIT DUP	7.24	9.69	0.28

UZ7191	SAMPLE 36	7.52		
UZ7192	SAMPLE 38	6.85		
UZ7193	SAMPLE 39	7.35	17.78	0.46
UZ7194	11-11-59	5.80	1.04	0.32
UZ7195	CM18-03-GC-01	6.34	0.81	<0.08
UZ7196	CM18-03-GC-02	6.40		
UZ7197	CM18-03-GC-03	6.33	0.67	<0.08
UZ7198	CM18-03-GC-04	6.76		
UZ7199	CM18-03-GC-05	6.41	0.59	<0.08
UZ7200	CM18-03-GC-06	6.75		
UZ7201	CM18-03-GC-07	6.92	0.53	<0.08
UZ7202	CM18-03-GC-08	6.77		
UZ7203	CM18-03-GC-09	7.74	1.60	1.30
UZ7204	CM18-03-GC-10	7.24		
VA9768	CM18-03-GC-10 SPLIT DUP	7.18	1.47	1.00
UZ7205	CM18-03-GC-11	7.17	2.07	<0.08
UZ7206	CM18-03-GC-12	7.77		
UZ7207	CM18-03-GC-13	7.82		
UZ7208	CM18-03-GC-14	7.47	2.06	0.39
UZ7209	CM18-03-GC-15	7.97		
UZ7210	CM18-03-GC-16	8.02		
UZ7211	CM18-03-GC-17	7.90	1.85	2.08
UZ7212	CM18-03-GC-18	8.31		
UZ7213	CM18-03-GC-19	7.90		
UZ7214	CM18-03-GC-20	8.36	4.05	8.84
UZ7215	CM18-03-GC-21	7.94		
UZ7216	CM18-03-GC-25	7.51		
UZ7217	CM18-03-GC-29	7.86	4.87	1.63
UZ7218	CM18-03-GC-30	8.21		
UZ7219	CM18-03-GC-31	8.15		
UZ7220	CM18-03-GC-32	8.19		
UZ7221	CM18-03-GC-36	7.53		
UZ7222	CM18-03-GC-37	8.25	1.62	2.76
UZ7223	CM18-03-GC-38	8.47		
UZ7224	CM18-03-GC-39	8.42	2.85	4.13
UZ7225	CM18-03-GC-40	7.95		
UZ7226	CM18-03-GC-41	7.98		
UZ7227	CM18-03-GC-43	7.69	1.34	0.13
UZ7228	CM18-03-GC-44	7.65		
VA9771	CM18-03-GC-44 SPLIT DUP	7.60	4.29	0.18
UZ7229	CM18-03-GC-45	7.49	11.14	0.31
UZ7230	CM18-03-GC-47	7.03		
UZ7231	CM18-03-GC-48	7.34	6.16	0.51

UZ7232	CM18-03-GC-50	8.21		
UZ7233	CM18-03-GC-51	8.34		
UZ7234	CM18-03-GC-52	8.19	3.51	3.23
UZ7235	CM18-03-GC-53	6.31		
UZ7236	CM18-03-GC-55	7.67	10.98	<0.08
UZ7237	CM18-03-GC-56	7.42	2.83	1.66
UZ7238	CM18-03-GC-57	7.65	5.29	0.50
UZ7239	CM18-03-GC-58	6.40	1.44	0.86
UZ7240	CM18-03-GC-59	6.59	10.99	3.10
VD9732	CM18-03-GC-59 SPLIT DUP	6.49	11.59	3.17
UZ7241	CM18-03-GC-60	7.22	21.86	<0.08
UZ7242	CM18-03-GC-61	7.48	55.23	0.19
UZ7243	CM18-03-GC-62	6.48	0.69	<0.08
UZ7244	CM18-03-GC-63	5.61	0.56	0.14
UZ7245	CM18-16-GC-15	7.70	8.21	1.65
UZ7246	CM18-16-GC-16	7.72		
UZ7247	CM18-16-GC-17	8.62		
UZ7248	CM18-16-GC-18	8.56	1.73	2.58
UZ7249	CM18-16-GC-19	8.50		
UZ7250	CM18-16-GC-20	8.42		
UZ7251	CM18-16-GC-21	7.79	2.18	0.56
UZ7252	CM18-16-GC-22	6.82		
UZ7253	CM18-16-GC-23	7.97		
UZ7254	CM18-16-GC-24	8.05	3.79	2.90
UZ7255	CM18-16-GC-25	8.49		
UZ7256	CM18-16-GC-26	8.88		
UZ7257	CM18-16-GC-27	8.50	6.87	8.15
UZ7258	CM18-16-GC-28	7.82		
UZ7259	CM18-16-GC-29	8.15		
UZ7260	CM18-16-GC-30	8.11	3.11	6.60
VD9734	CM18-16-GC-30 SPLIT DUP	8.23	3.14	6.38
UZ7261	CM18-16-GC-31	8.17		
UZ7262	CM18-16-GC-32	8.45		
UZ7263	CM18-16-GC-33	7.88	83.76	0.29
VA9770	CM18-16-GC-33 SPLIT DUP	7.74	83.09	0.33
UZ7264	CM18-16-GC-34	8.50		
UZ7265	CM18-16-GC-35	7.96		
UZ7266	CM18-16-GC-36	7.92	5.24	0.78
UZ7267	CM18-16-GC-37	7.51		
UZ7268	CM18-16-GC-38	7.95		
UZ7269	CM18-16-GC-39	8.81	6.45	3.48
UZ7270	CM18-16-GC-40	9.27	2.31	5.64
VD9735	CM18-16-GC-40 SPLIT DUP	9.22	2.28	5.67

UZ7271	CM18-16-GC-41	9.23	1.91	3.58
UZ7272	CM18-16-GC-42	9.24	3.33	7.15
UZ7273	CM18-16-GC-43	9.16	3.45	5.06
UZ7274	CM18-27-GC-01	6.35	2.57	<0.08
UZ7275	CM18-27-GC-02	6.63		
UZ7276	CM18-27-GC-03	6.63	3.13	<0.08
UZ7277	CM18-27-GC-04	6.71		
UZ7278	CM18-27-GC-05	6.98		
UZ7279	CM18-27-GC-06	6.92		
UZ7280	CM18-27-GC-07	6.48	1.29	<0.08
UZ7281	CM18-27-GC-08	6.83		
UZ7282	CM18-27-GC-09	6.90		
UZ7283	CM18-27-GC-10	7.59		
UZ7284	CM18-27-GC-11	7.81	2.62	1.20
UZ7285	CM18-27-GC-12	8.07		
UZ7286	CM18-27-GC-13	8.54		
UZ7287	CM18-27-GC-14	8.50		
UZ7288	CM18-27-GC-15	8.17	2.73	4.47
UZ7289	CM18-27-GC-16	7.13		
UZ7290	CM18-27-GC-17	7.37		
UZ7291	CM18-27-GC-18	7.84	1.16	0.77
UZ7292	CM18-27-GC-19	8.64		
UZ7293	CM18-27-GC-20	8.30		
UZ7294	CM18-27-GC-21	8.41	2.75	2.70
UZ7295	CM18-27-GC-22	8.49		
UZ7296	CM18-27-GC-23	8.47		
UZ7297	CM18-27-GC-24	8.22	22.08	1.74
UZ7298	CM18-27-GC-25	7.70		
UZ7299	CM18-27-GC-26	7.95		
VA9772	CM18-27-GC-26 SPLIT DUP	7.84	7.51	0.24
UZ7300	CM18-27-GC-27	7.23		
UZ7301	CM18-27-GC-28	8.60	2.97	5.16
UZ7302	CM18-27-GC-29	8.26		
UZ7303	CM18-27-GC-30	8.24		
UZ7304	CM18-27-GC-31	7.96	1.78	0.29
UZ7305	CM18-27-GC-32	7.81	4.86	0.65
UZ7306	CM18-27-GC-33	8.32		
UZ7307	CM18-27-GC-34	8.53	2.39	1.24
UZ7308	CM18-27-GC-35	9.44	2.46	5.10
UZ7309	CM18-27-GC-36	9.49	3.99	6.13
UZ7310	CM18-27-GC-37	8.49	1.73	0.19
VD9739	CM18-27-GC-37 SPLIT DUP	8.40	1.60	0.17
UZ7311	CM18-27-GC-38	9.08	5.66	3.22

UZ7312	CM18-27-GC-39	9.23	2.26	3.29
UZ7313	CM18-27-GC-40	8.81	1.50	2.24
UZ7314	CM18-27-GC-41	8.77	6.92	4.36
UZ7315	CM18-27-GC-42	9.01	38.49	0.26
UZ7316	CM18-27-GC-43	7.82	3.52	<0.08
UZ7317	CM18-27-GC-44	6.15	0.72	0.22
UZ7318	CM18-10-GC-01	8.34	3.94	3.81
UZ7319	CM18-10-GC-02	8.36		
UZ7320	CM18-10-GC-03	8.41	3.13	5.92
VD9740	CM18-10-GC-03 SPLIT DUP	8.48	2.99	6.17
UZ7321	CM18-10-GC-04	8.44		
UZ7322	CM18-10-GC-05	8.40	3.32	5.17
UZ7323	CM18-10-GC-06	8.10		
UZ7324	CM18-10-GC-29	6.63	5.61	0.14
UZ7325	CM18-10-GC-30	7.87	1.70	0.95
VA9767	CM18-10-GC-30 SPLIT DUP	7.85	1.69	0.95
UZ7326	CM18-10-GC-31	8.36	3.45	0.74
UZ7327	CM18-10-GC-32	7.56	1.43	0.64
UZ7328	CM18-10-GC-33	7.25	1.35	1.73
UZ7329	CM18-10-GC-34	7.88	1.14	1.44
UZ7330	CM18-10-GC-35	7.46	1.06	1.35
VD9741	CM18-10-GC-35 SPLIT DUP	7.38	0.94	1.52
UZ7331	CM18-05-GC2-01	5.98	0.52	<0.08
UZ7332	CM18-05-GC2-02	7.26		
UZ7333	CM18-05-GC2-03	7.48		
UZ7334	CM18-05-GC2-04	6.53	0.87	0.19
UZ7335	CM18-05-GC2-05	7.47		
UZ7336	CM18-05-GC2-06	8.13		
UZ7337	CM18-05-GC2-07	8.19		
UZ7338	CM18-05-GC2-08	8.26	2.80	5.53
UZ7339	CM18-05-GC2-09	8.22		
UZ7340	CM18-05-GC2-10	8.09		
UZ7341	CM18-05-GC2-11	8.27		
UZ7342	CM18-05-GC2-12	7.71	2.78	1.33
UZ7343	CM18-05-GC2-13	7.75		
UZ7344	CM18-05-GC2-14	7.73		
UZ7345	CM18-05-GC2-15	8.01	4.98	4.13
UZ7346	CM18-05-GC2-16	8.32		
UZ7347	CM18-05-GC2-17	8.10		
UZ7348	CM18-05-GC2-18	8.04	7.31	2.05
UZ7349	CM18-05-GC2-19	7.84		
UZ7350	CM18-05-GC2-20	7.82		
UZ7351	CM18-05-GC2-21	7.55	5.25	0.32

UZ7352	CM18-05-GC2-22	6.95		
UZ7353	CM18-05-GC2-23	7.95		
UZ7354	CM18-05-GC2-24	8.37	2.20	4.71
UZ7355	CM18-05-GC2-25	8.47		
UZ7356	CM18-05-GC2-26	8.01		
UZ7357	CM18-05-GC2-27	8.05	43.78	1.41
UZ7358	CM18-05-GC2-28	7.79		
UZ7359	CM18-05-GC2-29	7.80		
VA9766	CM18-05-GC2-29 SPLIT DUP	7.00	7.06	0.53
UZ7360	CM18-05-GC2-30	7.51		
UZ7361	CM18-05-GC2-31	7.02	40.08	0.13
UZ7362	CM18-05-GC2-32	7.94		
UZ7363	CM18-05-GC2-33	7.92		
UZ7364	CM18-05-GC2-34	8.33	3.22	6.00
UZ7365	CM18-05-GC2-35	8.27		
UZ7367	CM18-05-GC2-37	7.98		
UZ7368	CM18-05-GC2-38	7.85	13.02	0.10
UZ7369	CM18-05-GC2-39	6.07	1.35	0.51
UZ7370	CM18-05-GC2-40	6.88	1.90	0.86
UZ7371	CM18-05-GC2-41	7.93	1.04	1.18
VD9745	CM18-05-GC2-41 SPLIT DUP	7.72	0.99	1.30
UZ7372	CM18-05-GC2-42	8.07	14.40	22.63
UZ7373	CM18-05-GC2-43	8.02	48.96	0.19
UZ7374	CM18-05-GC2-44	8.23	24.61	30.21
UZ7375	CM18-05-GC2-45	6.67	1.04	0.15
VA9939	11-12-11	6.34	11.43	<0.08
VA9940	11-12-12	7.59		
VA9941	11-12-15	7.05		
VA9942	11-12-22	7.04	7.31	0.23
VA9943	11-12-27	6.90		
VA9944	11-12-28	6.57		
VA9945	11-12-29	6.26	9.34	0.20
VA9946	11-12-33	6.38		
VA9947	11-12-35	5.11		
VA9948	11-12-37	7.28	3.89	3.68
VA9949	11-12-40	8.26		
VA9950	11-12-44	8.17		
VA9951	11-12-45	5.74	5.83	0.11
VA9952	11-22-41	7.30	20.33	0.20
VA9953	11-22-43	7.71	5.98	0.13
VD9747	11-22-43 SPLIT DUP	7.78	5.71	0.14
VB9483	11-19-101	8.07	2.38	0.17

<i>Detection Limits</i>	<i>N/A</i>	<i>0.02</i>	<i>0.08</i>
<i>Maxxam SOP #</i>	<i>BBY0SOP</i>	<i>LECO</i>	<i>LECO</i>

Notes:

Lawrence, R.W. 1991. Acid Rock Drainage Prediction Manual

Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M. (March 1978), Field and

References:

Acid Generation Potential = Sulphide Sulphur (by diff.)*31.25

CaCO3 Equivalency = Carbonate Carbon (CO2)*(100/44)*10

Carbonate carbon (CO2; HCl direct method) by Leco

Fizz Rating - Reference method used is based on NP method.

HCl Extractable Sulphur is based on a modified version of ASTM Method D 2492-02

Mod. ABA Neutralization Potential - MEND Acid Rock Drainage Prediction Manual, M

Net Neutralization Potential = (Modified ABA Neutralization Potential)-(Acid Generatic

Neutralization Potential Ratio = (Neutralization Potential)/(Acid Generation Potential)

Paste pH - Field and Laboratory Methods Applicable to Overburdens and Minesoils, (

Sulphide Sulphur = (Total Sulphur)-(HCl Extractable Sulphur)

Total sulphur, total carbon & carbonate carbon (CO2; HCl direct method) by Leco

Client:

CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)	Acid Generation Potential
Kg CaCO3/T	wt%	wt%	wt%	Kg CaCO3/T
20.9	0.37	0.01	0.36	11.3
73.0	0.11	<0.01	0.11	3.4
7.1	0.27	0.01	0.26	8.1
38.9	0.38	0.02	0.36	11.3
57.1	1.26	<0.01	1.26	39.4
8.0	0.08	0.02	0.06	1.9
		<0.01		
		<0.01		
<1.8	0.11	0.02	0.09	2.8
		0.02		
		0.01		
1.8	0.14	0.02	0.12	3.8
		0.01		
48.4	0.17	0.03	0.14	4.4
		0.02		
		0.01		
		0.01		
90.2	0.08	0.01	0.07	2.2
		0.01		
76.6	0.05	0.01	0.04	1.3
		0.01		
		0.01		
5.7	0.05	<0.01	0.05	1.6
		<0.01		
154.1	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
<1.8	0.05	0.02	0.03	0.9
		<0.01		
		<0.01		
6.4	0.12	0.01	0.11	3.4
6.4	0.16	0.01	0.15	4.7

		0.01		
		0.01		
10.5	0.18	0.01	0.17	5.3
7.3	0.27	0.05	0.22	6.9
<1.8	<0.02	<0.01	<0.02	<0.6
		<0.01		
<1.8	<0.02	<0.01	<0.02	<0.6
		<0.01		
<1.8	<0.02	<0.01	<0.02	<0.6
		<0.01		
<1.8	<0.02	<0.01	<0.02	<0.6
		<0.01		
29.6	<0.02	<0.01	<0.02	<0.6
		<0.01		
22.7	0.02	<0.01	0.02	0.6
<1.8	0.02	<0.01	0.02	0.6
		<0.01		
		<0.01		
8.9	0.03	<0.01	0.03	0.9
		<0.01		
		<0.01		
47.3	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
200.9	0.09	<0.01	0.09	2.8
		<0.01		
		<0.01		
37.1	0.10	<0.01	0.10	3.1
		<0.01		
		<0.01		
		0.01		
		<0.01		
62.7	0.06	<0.01	0.06	1.9
		<0.01		
93.9	0.04	<0.01	0.04	1.3
		<0.01		
		<0.01		
3.0	0.04	<0.01	0.04	1.3
		<0.01		
4.1	0.12	<0.01	0.12	3.8
7.1	0.34	<0.01	0.34	10.6
		<0.01		
11.6	0.16	<0.01	0.16	5.0

		<0.01		
		<0.01		
73.4	0.21	<0.01	0.21	6.6
		0.01		
<1.8	0.47	<0.01	0.47	14.7
37.7	0.38	0.01	0.37	11.6
11.4	0.27	<0.01	0.27	8.4
19.6	0.44	0.02	0.42	13.1
70.5	2.53	0.03	2.50	78.1
72.1	2.49	0.03	2.46	76.9
<1.8	0.33	<0.01	0.33	10.3
4.3	0.48	<0.01	0.48	15.0
<1.8	0.03	<0.01	0.03	0.9
3.2	0.14	0.03	0.11	3.4
37.5	0.14	<0.01	0.14	4.4
		<0.01		
		<0.01		
58.6	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
12.7	0.09	<0.01	0.09	2.8
		<0.01		
		<0.01		
65.9	0.11	<0.01	0.11	3.4
		<0.01		
		<0.01		
185.2	0.11	<0.01	0.11	3.4
		<0.01		
		<0.01		
150.0	0.08	0.01	0.07	2.2
145.0	0.08	<0.01	0.08	2.5
		<0.01		
		<0.01		
6.6	0.77	<0.01	0.77	24.1
7.5	0.69	<0.01	0.69	21.6
		<0.01		
		<0.01		
17.7	0.14	<0.01	0.14	4.4
		<0.01		
		<0.01		
79.1	0.13	<0.01	0.13	4.1
128.2	0.06	<0.01	0.06	1.9
128.9	0.05	<0.01	0.05	1.6

81.4	0.09	<0.01	0.09	2.8
162.5	0.13	<0.01	0.13	4.1
115.0	0.19	<0.01	0.19	5.9
<1.8	0.05	<0.01	0.05	1.6
		<0.01		
<1.8	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
		<0.01		
<1.8	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
		<0.01		
27.3	0.09	<0.01	0.09	2.8
		0.01		
		<0.01		
		<0.01		
101.6	0.06	<0.01	0.06	1.9
		<0.01		
		<0.01		
17.5	0.04	<0.01	0.04	1.3
		<0.01		
		<0.01		
61.4	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
39.6	0.22	<0.01	0.22	6.9
		<0.01		
		<0.01		
5.5	0.14	<0.01	0.14	4.4
		<0.01		
117.3	0.06	<0.01	0.06	1.9
		<0.01		
		<0.01		
6.6	0.11	<0.01	0.11	3.4
14.8	0.09	<0.01	0.09	2.8
		<0.01		
28.2	0.04	<0.01	0.04	1.3
115.9	0.06	<0.01	0.06	1.9
139.3	0.17	<0.01	0.17	5.3
4.3	0.24	<0.01	0.24	7.5
3.9	0.21	<0.01	0.21	6.6
73.2	0.38	<0.01	0.38	11.9

74.8	0.28	<0.01	0.28	8.8
50.9	0.48	<0.01	0.48	15.0
99.1	1.12	<0.01	1.12	35.0
5.9	0.52	<0.01	0.52	16.3
<1.8	0.15	0.03	0.12	3.8
5.0	0.31	0.03	0.28	8.8
86.6	0.90	<0.01	0.90	28.1
		<0.01		
134.6	0.08	0.01	0.07	2.2
140.2	0.07	0.01	0.06	1.9
		<0.01		
117.5	0.11	0.01	0.10	3.1
		<0.01		
3.2	0.77	0.01	0.76	23.8
21.6	0.33	<0.01	0.33	10.3
21.6	0.33	<0.01	0.33	10.3
16.8	0.26	<0.01	0.26	8.1
14.6	0.35	0.02	0.33	10.3
39.3	0.68	0.03	0.65	20.3
32.7	0.21	0.03	0.18	5.6
30.7	0.97	0.08	0.89	27.8
34.6	0.95	0.07	0.88	27.5
<1.8	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
4.3	0.04	<0.01	0.04	1.3
		<0.01		
		<0.01		
		<0.01		
125.7	0.06	<0.01	0.06	1.9
		<0.01		
		<0.01		
		<0.01		
30.2	0.08	<0.01	0.08	2.5
		<0.01		
		<0.01		
93.9	0.09	<0.01	0.09	2.8
		<0.01		
		<0.01		
46.6	0.19	<0.01	0.19	5.9
		<0.01		
		<0.01		
7.3	0.08	<0.01	0.08	2.5

		<0.01		
		<0.01		
107.1	0.05	<0.01	0.05	1.6
		<0.01		
		<0.01		
32.1	0.26	<0.01	0.26	8.1
		<0.01		
		<0.01		
12.0	0.14	<0.01	0.14	4.4
		<0.01		
3.0	0.67	0.01	0.66	20.6
		<0.01		
		<0.01		
136.4	0.09	<0.01	0.09	2.8
		<0.01		
		<0.01		
2.3	0.38	<0.01	0.38	11.9
11.6	0.26	0.01	0.25	7.8
19.6	0.34	0.01	0.33	10.3
26.8	0.35	0.03	0.32	10.0
29.6	0.32	0.01	0.31	9.7
514.3	0.55	<0.01	0.55	17.2
4.3	0.57	<0.01	0.57	17.8
686.6	0.17	<0.01	0.17	5.3
3.4	0.06	<0.01	0.06	1.9
<1.8	0.15	0.01	0.14	4.4
		0.01		
		0.01		
5.2	0.07	0.01	0.06	1.9
		0.01		
		0.02		
4.6	0.08	0.01	0.07	2.2
		0.01		
		0.04		
83.6	0.09	0.01	0.08	2.5
		0.01		
		0.01		
2.5	0.59	0.07	0.52	16.3
4.6	0.20	<0.01	0.20	6.3
3.0	0.05	<0.01	0.05	1.6
3.2	0.07	<0.01	0.07	2.2
3.9	0.22	0.02	0.20	6.3

<i>1.8</i>	<i>0.02</i>	<i>0.01</i>	<i>0.02</i>	<i>0.6</i>
<i>BBY WI-00033</i>	<i>LECO</i>	<i>BBY0SOP-00010</i>	<i>BBY WI-00033</i>	<i>BBY WI-00033</i>

Laboratory Methods Applicable to Overburden and Minesoils, Report EPA-600/2-78-054, U.S. Natl

LEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.
on Potential (S-S by diff))

EPA 600 / 2-78-054, March 1978).

Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio
Kg CaCO3/T	N/A	Kg CaCO3/T	N/A
6.50	NONE	-4.80	0.6
50.0	SLIGHT	46.6	14.7
3.30	NONE	-4.80	0.4
9.50	NONE	-1.80	0.8
6.50	NONE (H)	-32.9	0.2
6.80	NONE	4.90	3.6
-3.80	NONE		
-2.50	NONE		
-2.80	NONE	-5.60	#N/A
0.0	NONE		
5.30	NONE (H)		
0.0	NONE	-3.80	#N/A
2.00	NONE		
12.8	NONE	8.40	2.9
2.80	NONE		
2.00	NONE		
1.50	NONE		
48.5	SLIGHT	46.3	22.0
1.50	NONE		
49.0	SLIGHT	47.7	37.7
102	MODERATE		
73.5	SLIGHT		
1.00	NONE	-0.600	0.6
2.50	NONE		
73.3	SLIGHT	71.7	45.8
52.0	SLIGHT		
0.0	NONE		
3.80	NONE	2.90	4.2
61.0	SLIGHT		
8.50	NONE		
6.80	NONE	3.40	2.0
7.50	NONE	2.80	1.6

1.80	NONE		
1.80	NONE (H)		
2.30	NONE	-3.00	0.4
4.50	NONE	-2.40	0.7
1.50	NONE	1.50	#N/A
2.50	NONE		
1.00	NONE	1.00	#N/A
3.50	NONE		
2.00	NONE	2.00	#N/A
4.50	NONE		
3.80	NONE	3.80	#N/A
1.80	NONE		
17.5	NONE	17.5	#N/A
8.30	NONE		
10.00	NONE	9.38	16.0
4.00	NONE	3.40	6.7
17.0	NONE		
4.80	NONE		
5.00	NONE	4.10	5.6
58.5	SLIGHT		
23.3	SLIGHT		
31.8	SLIGHT	30.2	19.9
72.3	SLIGHT		
32.8	SLIGHT		
122	SLIGHT	120	43.7
48.0	SLIGHT		
4.30	NONE		
31.5	SLIGHT	28.4	10.2
63.5	SLIGHT		
63.8	SLIGHT		
87.8	SLIGHT		
2.50	NONE		
50.8	SLIGHT	48.9	26.7
87.3	SLIGHT		
73.8	SLIGHT	72.5	56.8
21.3	SLIGHT		
28.8	SLIGHT		
6.30	NONE	5.00	4.8
4.00	NONE		
5.00	NONE	1.25	1.3
2.50	NONE	-8.10	0.2
2.00	NONE (H)		
2.00	NONE	-3.00	0.4

50.3	SLIGHT		
74.3	SLIGHT		
47.3	SLIGHT	40.7	7.2
1.30	NONE		
1.30	NONE	-13.4	<0.1
9.30	SLIGHT	-2.30	0.8
4.80	NONE	-3.60	0.6
5.80	NONE	-7.30	0.4
12.8	NONE	-65.3	0.2
10.3	NONE	-66.6	0.1
0.800	NONE	-9.50	<0.1
2.00	NONE (H)	-13.0	0.1
1.80	NONE	0.900	2.0
4.30	NONE	0.900	1.3
11.0	NONE	6.60	2.5
3.50	NONE		
55.0	SLIGHT		
49.8	SLIGHT	48.2	31.1
50.8	SLIGHT		
33.8	SLIGHT		
7.50	NONE	4.70	2.7
10.3	NONE (H)		
1.50	NONE		
20.0	SLIGHT	16.6	5.9
72.0	SLIGHT		
129	MODERATE		
104	MODERATE	101	30.6
2.80	NONE (H)		
42.5	SLIGHT		
62.3	SLIGHT	60.1	28.3
65.3	SLIGHT	62.8	26.1
5.00	NONE (H)		
148	MODERATE		
9.50	NONE (H)	-14.6	0.4
10.30	NONE	-11.26	0.5
76.8	SLIGHT		
1.80	NONE (H)		
4.30	NONE	-0.100	1.0
16.8	NONE (H)		
3.80	NONE		
32.3	SLIGHT	28.2	7.9
115	MODERATE	113	60.5
114	MODERATE	112	71.3

64.8	SLIGHT	62.0	23.1
112	MODERATE	108	27.3
70.3	SLIGHT	64.4	11.9
0.800	NONE	-0.800	0.5
2.30	NONE		
0.0	NONE	-1.60	#N/A
2.80	NONE		
2.50	NONE		
5.50	NONE		
2.80	NONE	1.20	1.8
2.30	NONE		
1.80	NONE		
10.5	NONE		
16.5	SLIGHT	13.7	5.9
28.5	SLIGHT		
79.5	SLIGHT		
62.3	SLIGHT		
58.0	SLIGHT	56.1	30.5
8.00	NONE		
0.800	NONE		
8.50	NONE	7.20	6.5
123	MODERATE		
57.8	SLIGHT		
61.3	SLIGHT	59.7	38.3
151	MODERATE		
114	MODERATE		
10.5	SLIGHT	3.60	1.5
2.00	NONE		
6.50	NONE		
6.80	NONE	2.43	1.6
1.50	NONE		
92.8	SLIGHT	90.9	48.8
60.3	SLIGHT		
26.3	SLIGHT		
5.50	NONE	2.10	1.6
4.30	NONE	1.50	1.5
9.30	NONE		
5.50	NONE	4.20	4.2
79.0	SLIGHT	77.1	41.6
95.5	SLIGHT	90.2	18.0
4.80	NONE	-2.70	0.6
4.30	NONE	-2.30	0.7
26.0	SLIGHT	14.1	2.2

43.0	SLIGHT	34.2	4.9
19.8	SLIGHT	4.80	1.3
24.5	SLIGHT	-10.5	0.7
2.50	NONE	-13.8	0.2
2.50	SLIGHT	-1.30	0.7
4.80	SLIGHT	-4.00	0.5
60.0	SLIGHT	31.9	2.1
98.8	MODERATE		
116	MODERATE	114	52.6
114	MODERATE	112	60.2
146	MODERATE		
69.8	SLIGHT	66.7	22.5
24.0	SLIGHT		
-0.800	NONE	-24.6	#N/A
7.50	NONE	-2.80	0.7
6.50	NONE	-3.81	0.6
9.00	NONE	0.900	1.1
14.0	SLIGHT	3.70	1.4
15.3	SLIGHT	-5.00	0.8
31.8	SLIGHT	26.2	5.7
35.0	SLIGHT	7.20	1.3
33.5	SLIGHT	6.00	1.2
2.00	NONE	0.400	1.3
14.3	SLIGHT		
12.0	NONE		
5.50	NONE	4.20	4.2
16.3	SLIGHT		
70.5	SLIGHT		
61.3	SLIGHT		
94.0	SLIGHT	92.1	49.5
58.8	SLIGHT		
85.0	SLIGHT		
74.5	SLIGHT		
7.50	NONE	5.00	3.0
8.50	NONE (H)		
1.30	NONE		
55.8	SLIGHT	53.0	19.9
102	MODERATE		
79.3	MODERATE		
49.8	MODERATE	43.9	8.4
7.50	NONE (H)		
3.00	NONE		
2.00	NONE	-0.500	0.8

1.30	NONE (H)		
37.0	SLIGHT		
84.8	MODERATE	83.2	53.0
90.0	MODERATE		
20.0	SLIGHT		
10.3	SLIGHT	2.20	1.3
2.50	NONE		
4.30	NONE		
4.30	NONE	-0.08	1.0
5.30	NONE		
1.50	NONE	-19.1	<0.1
2.50	NONE		
17.8	SLIGHT		
80.3	SLIGHT	77.5	28.7
63.5	SLIGHT		
1.80	NONE		
1.50	NONE	-10.4	0.1
4.50	NONE	-3.30	0.6
7.30	NONE	-3.00	0.7
23.5	SLIGHT	13.5	2.4
21.3	SLIGHT	11.6	2.2
39.0	SLIGHT	21.8	2.3
2.30	NONE	-15.5	0.1
21.5	NONE	16.2	4.1
3.50	NONE	1.60	1.8
2.50	NONE	-1.90	0.6
37.0	SLIGHT		
1.80	NONE		
1.00	NONE	-0.900	0.5
2.00	NONE		
2.50	NONE		
1.00	NONE	-1.20	0.5
7.50	NONE		
0.500	NONE		
17.8	NONE	15.3	7.1
68.0	SLIGHT		
41.0	SLIGHT		
0.800	NONE	-15.5	<0.1
2.30	NONE	-4.00	0.4
2.50	NONE	0.900	1.6
2.80	NONE	0.600	1.3
2.80	NONE	-3.50	0.4

<i>0.1</i>	<i>N/A</i>	<i>0.1</i>	<i>0.1</i>
<i>BBY0SOP-00020</i>	<i>BBY0SOP-00</i>	<i>BBY WI-00033</i>	<i>BBY WI-00033</i>

onal Technical Information Service Report PB-280 495 pages 46-47.

Table 1: ABA Test Results for project CROWN MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Paste pH	Total Carbon	CO2	CaCO3 Equiv.	Total S	HCl Extractable Sulphur	Sulphide Sulphur (by diff.)	Acid Generation Potential	Mod. ABA Neutralization Potential	Fizz Rating	Net Neutralization Potential	Neutralization Potential Ratio
	Units	pH Units	wt%	wt%	Kg CaCO3/T	wt%	wt%	wt%	Kg CaCO3/T	Kg CaCO3/T	N/A	Kg CaCO3/T	N/A
VC0033	TP18-MD6	8.34	0.78	1.00	22.7	<0.02	<0.01	<0.02	<0.6	33.0	MODERATE	33.0	#N/A
VC0034	BH18-MD2	8.76	4.84	15.99	363.4	0.34	<0.01	0.34	10.6	366	STRONG	356	34.6
VC0035	BH18-12	8.69	3.28	7.12	161.8	0.22	0.01	0.21	6.6	169	STRONG	163	25.7
VC0036	BH18-MD1	8.69	3.00	5.65	128.4	0.47	0.01	0.46	14.4	140	STRONG	126	9.7
VC0037	BH18-MD1 QC	8.69	2.99	5.68	129.1	0.46	0.02	0.44	13.8	136	STRONG	122	9.9
VC0038	BH-18-PP2 SPLIT DUP	8.48	5.05	15.11	343.4	0.52	0.03	0.49	15.3	361	STRONG	346	23.6
<i>Detection Limits</i>		<i>N/A</i>	<i>0.02</i>	<i>0.08</i>	<i>1.8</i>	<i>0.02</i>	<i>0.01</i>	<i>0.02</i>	<i>0.6</i>	<i>0.1</i>	<i>N/A</i>	<i>0.1</i>	<i>0.1</i>
<i>Maxxam SOP #</i>		<i>BBY0SOP</i>	<i>LECO</i>	<i>LECO</i>	<i>BBY WI-00033</i>	<i>LECO</i>	<i>BBY0SOP-00010</i>	<i>BBY WI-00033</i>	<i>BBY WI-00033</i>	<i>BBY0SOP-00020</i>	<i>BBY0SOP-00</i>	<i>BBY WI-00033</i>	<i>BBY WI-00033</i>

Notes:

Lawrence, R.W. 1991. Acid Rock Drainage Prediction Manual

Sobek, A.A., Schuller, W.A., Freeman, J.R. and Smith, R.M. (March 1978), Field and Laboratory Methods Applicable to Overburden and Minesoils, Report EPA-600/2-78-054, U.S. National Technical Information Service Report PB-280 495 pages 46-47.

References:

Acid Generation Potential = Sulphide Sulphur (by diff.)*31.25

CaCO3 Equivalency = Carbonate Carbon (CO2)*(100/44)*10

Carbonate carbon (CO2; HCl direct method) by Leco.

Fizz Rating - Reference method used is based on NP method.

HCl Extractable Sulphur is based on a modified version of ASTM Method D 2492-02

Mod. ABA Neutralization Potential - MEND Acid Rock Drainage Prediction Manual, MEND Project 1.16.1b (pages 6.2-11 to 17), March 1991.

Net Neutralization Potential = (Modified ABA Neutralization Potential)-(Acid Generation Potential (S-S by diff))

Neutralization Potential Ratio = (Neutralization Potential)/(Acid Generation Potential)

Paste pH - Field and Laboratory Methods Applicable to Overburdens and Minesoils, (EPA 600 / 2-78-054, March 1978).

Sulphide Sulphur = (Total Sulphur)-(Sulphate Sulphur)

Total sulphur, total carbon & carbonate carbon (CO2; HCl direct method) by Leco.

Table 4: Flouride by Fusion Test Results for project CROWN MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Flourine (F)
	Units	ppm
VC0033	TP18-MD6	611
VC0035	BH18-12	735
QAQC		
Blanks		
Method Blank		<10
Reference Material		
STD STSD-1		1049.00
True Values STD STSD-1		950.00
Percent Difference		10.42
Detection Limits		10.00
Maxxam SOP #		GC-840



Table 3: Ultratrace Metals Test Results for project CROWN MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P
	Units	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppb	ppm	ppm	ppm	ppm	ppm	ppm	%	%
VC0033	TP18-MD6	1.00	7.81	9.07	85.5	94	25.2	10.9	517	2.55	3.6	1.1	<0.2	4.5	46.8	0.38	0.18	0.04	27	1.60	0.161
VC0034	BH18-MD2	0.71	5.42	9.43	29.0	58	3.5	5.1	1780	1.61	4.1	0.5	<0.2	4.4	203	0.11	0.08	0.11	9	13.4	0.071
VC0035	BH18-12	1.51	12.1	9.23	88.3	299	18.4	6.0	264	1.83	5.8	1.1	<0.2	3.5	118	0.82	0.22	0.08	22	5.43	0.122
VC0036	BH18-MD1	1.65	11.3	8.71	73.8	373	19.2	4.2	226	1.77	4.6	1.3	<0.2	3.7	112	0.59	0.17	0.09	22	4.53	0.143
VC0037	BH18-MD1 QC	1.48	11.0	8.32	69.0	359	19.0	4.2	202	1.71	4.4	1.2	<0.2	3.7	114	0.55	0.18	0.08	22	4.41	0.137
VC0038	BH-18-PP2 SPLIT DUP	0.68	13.5	13.4	62.4	58	14.9	9.7	563	2.17	6.2	0.5	<0.2	4.6	296	0.24	0.11	0.27	22	14.3	0.060
QAQC																					
Duplicates																					
VC0035 Dup	BH18-12	1.53	11.7	9.55	91.8	298	17.6	5.9	268	1.82	5.7	1.2	<0.2	3.7	115	0.80	0.23	0.08	22	5.44	0.134
Blanks																					
Method Blank																					
Method Blank																					
Method Blank																					
Reference Material																					
DS11 % (9312701)																					
True Values DS11 %																					
Percent Difference (9312701)																					
Reference Material																					
DS11 ppb (9312721)																					
True Values DS11 ppb																					
Percent Difference (9312721)																					
Reference Material																					
DS11 ppm (9312778)																					
True Values DS11 ppm																					
Percent Difference (9312778)																					
Reference Material																					
REF OREAS262 (%) (9312701)																					
True Values REF OREAS262																					
Percent Difference (9312701)																					
Reference Material																					
REF OREAS262 PPB (9312721)																					
True Values REF OREAS262 PPB																					
Percent Difference (9312721)																					
Reference Material																					
REF OREAS262 PPM (9312778)																					
True Values REF OREAS262 PPM																					
Percent Difference (9312778)																					
Detection Limits																					
Maxxam SOP #																					



Maxxam Analytics 4806 Canada Way, Burnaby, BC Canada V5G 1K5 Tel: 604 734 7276 Fax: 604 731 2386 www.maxxam.ca

Table 3: Ultratrace Metals Test Results for p

Maxxam Sample No	Sample ID	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Sc	Tl	Hg	Se	Te	Ga	S
	Units	ppm	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%
VC0033	TP18-MD6	9.2	22.9	0.17	202	0.001	<20	0.54	0.004	0.20	<0.05	5.1	0.05	44	0.1	<0.02	1.6	<0.02
VC0034	BH18-MD2	8.4	6.6	0.75	123	0.001	<20	0.79	0.022	0.24	<0.05	3.7	0.07	10	0.1	0.02	1.5	0.29
VC0035	BH18-12	6.7	9.5	1.33	161	<0.001	<20	0.53	0.014	0.25	<0.05	4.3	0.04	40	1.0	0.02	1.2	0.18
VC0036	BH18-MD1	6.7	12.3	1.14	214	<0.001	<20	0.54	0.012	0.25	<0.05	4.1	0.05	77	1.3	0.03	1.2	0.42
VC0037	BH18-MD1 QC	6.6	12.4	1.12	206	<0.001	<20	0.57	0.013	0.26	<0.05	3.9	0.06	65	1.2	<0.02	1.3	0.40
VC0038	BH-18-PP2 SPLIT DUP	7.9	16.9	1.07	576	0.001	<20	1.52	0.018	0.34	<0.05	5.8	0.08	20	0.6	0.07	3.2	0.44
QAQC																		
Duplicates																		
VC0035 Dup	BH18-12	6.8	9.4	1.32	169	<0.001	<20	0.55	0.013	0.26	<0.05	4.7	0.04	50	1.1	0.02	1.1	0.18
Blanks																		
Method Blank				<0.01		<0.001		<0.01	<0.001	<0.01								<0.02
Method Blank														<5				
Method Blank		<0.5	<0.5		<0.5		<20				<0.05	<0.1	<0.02		<0.1	<0.02	<0.1	
Reference Material																		
DS11 % (9312701)				0.84		0.082		1.18	0.072	0.41								0.27
True Values DS11 %				0.9		0.1		1.1	0.1	0.4								0.3
Percent Difference (9312701)				-1.2		-16.0		4.5	3.7	2.5								-4.8
Reference Material																		
DS11 ppb (9312721)														297				
True Values DS11 ppb														300.0				
Percent Difference (9312721)														-1.0				
Reference Material																		
DS11 ppm (9312778)		17.8	57.4		412.9						3	3.5	5.13		2.4	4.66	5.2	
True Values DS11 ppm		18.6	61.5		417.0						2.9	3.1	4.9		2.2	4.6	4.7	
Percent Difference (9312778)		-4.3	-6.7		-1.0						3.4	12.9	4.7		9.1	2.2	10.6	
Reference Material																		
REF OREAS262 (%) (9312701)				1.17		0.003		1.26	0.067	0.32								0.26
True Values REF OREAS262				1.17		0.0027		1.3	0.071	0.295								0.253
Percent Difference (9312701)				0.0		11.1		-3.1	-5.6	8.5								2.8
Reference Material																		
REF OREAS262 PPB (9312721)														171				
True Values REF OREAS262 PPB														170				
Percent Difference (9312721)														0.6				
Reference Material																		
REF OREAS262 PPM (9312778)		16.2	42.5		250.8						<0.1	3.5	0.45		0.5	0.23	3.8	
True Values REF OREAS262 PPM		15.9	41.7		246						0.2	3.24	0.47		0.4	0.23	3.73	
Percent Difference (9312778)		1.9	1.9		2.0						-100.0	8.0	-4.3		25.0	0.0	1.9	
Detection Limits		0.5	0.5	0.01	0.5	0.001	20	0.01	0.001	0.01	0.05	0.1	0.02	5	0.1	0.02	0.1	0.02
Maxxam SOP #		AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250	AQ-250

Table 1: MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

Table with columns: Sample No., Sample ID, Pulp pH, Total Carbon, COD, Cu/COD, Zn/COD, TSS, HCl Extractable Sulphur, Sulphur Sulphur Py, Acid Generation Potential, Mut. ABA Neutralization Potential, Fluor Rating, Net Neutralization Potential, and Neutralization Potential Ratio.

Notes: 1. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

Method: Acid-Base Titration - Sulphur Sulphur Py (AST D1225); 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 2. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM; 3. MSDCalculation - Results - 05/10/2016 - 10:20:57 AM

Table 3: Ultracore Metals Test Results for VROW MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Mo	Cu	Pb	Zn	Ag	Ni	Co	Mn	Fe	As	U	Au	Th	Sr	Cd	Sb	Bi	V	Ca	P	La	Cr	Mg	Ba	Ti	B	Al	Na	K	W	Tl	Hg	Se	Te	Ga	S	
U27180	Units	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	%	ppm	%	ppm	%	ppm	%	%	%	ppm	ppm	ppm	ppm	ppm	ppm	%		
U27181	CM18-16-LD03-38	0.88	13.5	8.60	99.8	289	21.3	7.1	65	1.44	6.7	1.1	0.4	3.6	32.9	0.51	0.17	0.09	1.9	0.34	0.126	5.6	7.8	0.15	321	0.001	0.36	0.47	0.067	0.20	-0.1	4.0	0.04	145	0.6	0.02	1.1	0.34
U27182	CM18-16-LD03-39	1.01	16.9	9.79	96.5	270	21.1	7.6	193	1.86	3.2	1.0	1.0	3.3	43.1	1.10	0.26	0.13	1.46	0.099	5.8	6.4	0.35	458	0.001	0.46	0.072	0.21	-0.1	3.2	0.03	1.1	0.09	0.02	1.1	0.09		
U27183	CM18-16-LD03-40	0.6	4.64	5.11	40.7	303	11.7	4.2	50	0.75	2.9	0.9	1.0	2.3	34.0	0.21	0.11	0.03	1.2	0.31	0.146	4.5	7.0	0.07	413	0.001	0.32	0.036	0.13	-0.1	2.7	0.06	89	0.2	-0.02	1.0	0.25	
U27184	CM18-16-LD03-41	0.53	4.77	5.82	44.7	264	10.9	4.6	138	0.22	3.3	0.9	0.5	2.3	35.4	0.15	0.12	0.03	1.8	0.40	0.138	5.4	8.0	0.24	284	0.001	0.34	0.037	0.13	-0.1	5.5	0.06	79	0.2	-0.02	0.9	0.37	
U27185	CM18-16-LD03-42	0.43	10.8	4.86	15.2	63	5.7	2.3	618	0.46	1.3	0.4	0.2	1.1	10.2	0.12	0.13	0.03	1.8	0.16	0.016	4.3	3.1	0.06	110	0.001	0.10	0.023	0.04	-0.1	2.7	-0.02	183	0.2	-0.02	1.6	0.97	
U27186	CM18-16-LD03-43	0.43	4.36	4.24	36.5	159	16.9	6.0	93	0.75	3.0	0.7	0.3	1.5	28.8	0.25	0.18	0.02	1.3	0.38	0.119	3.7	15.3	0.06	285	0.001	0.20	0.023	0.09	-0.1	4.2	-0.02	38	0.2	-0.02	0.6	0.6	
U27186	SAMPLE 1	3.51	26.7	21.7	39.0	453	5.9	0.9	11	0.89	7.4	2.6	2.4	7.2	32.1	0.81	0.87	0.38	73	0.073	0.073	9.6	17.6	0.03	222	0.001	0.20	0.008	0.07	-0.1	7.2	0.10	260	3.9	0.10	2.8	-0.02	0.6
U27186	SAMPLE 2	3.00	38.5	24.1	39.7	527	7.2	1.1	20	0.44	4.8	2.3	2.4	7.8	51.6	1.15	0.77	0.22	60	0.05	0.059	12.3	17.9	0.04	274	0.001	0.17	0.005	0.39	-0.1	5.5	0.09	267	4.7	0.09	2.2	-0.02	0.6
U27186	SAMPLE 4	1.82	42.0	19.2	189	408	34.5	10.4	44	0.41	6.0	1.1	1.7	1.6	3.0	21.4	0.37	0.31	29	0.02	0.004	1.9	7.9	0.04	222	0.001	0.73	0.006	0.31	-0.1	6.5	0.03	165	2.0	0.07	1.9	0.07	
U27186	SAMPLE 5	2.09	37.1	17.1	202	456	34.4	9.0	83	0.66	3.5	1.6	0.7	2.6	13.1	2.32	0.44	0.27	40	0.08	0.027	3.6	9.6	0.06	284	0.001	0.77	0.007	0.31	-0.1	5.5	0.02	147	3.0	0.05	2.1	0.07	
U27186	SAMPLE 6	1.61	33.7	17.2	182	433	33.2	8.2	90	0.81	3.2	1.6	0.8	2.5	13.5	2.33	0.30	0.26	42	0.07	0.055	3.7	9.9	0.06	267	0.001	0.73	0.008	0.30	-0.05	5.3	0.02	124	2.8	0.07	2.1	0.06	
U27170	SAMPLE 6	1.61	33.7	15.8	128	483	16.0	5.1	275	0.34	1.9	1.1	1.9	1.4	7.4	2.41	0.60	0.22	33	0.029	0.008	2.2	8.1	0.08	250	0.001	0.39	0.004	0.19	-0.1	6.5	-0.02	80	2.6	0.06	1.3	0.07	
U27171	SAMPLE 8	1.79	30.8	17.9	143	517	13.4	3.0	29	0.34	1.2	1.5	-0.2	1.7	10.0	1.68	0.45	0.31	35	0.08	0.027	3.8	8.9	0.05	331	0.001	0.81	0.005	0.28	-0.1	4.8	0.03	96	3.4	0.06	2.2	0.06	
U27172	SAMPLE 9	1.90	30.4	16.5	218	381	41.8	11.1	190	0.47	3.3	1.5	1.4	5.2	30.6	2.19	0.25	0.29	38	0.20	0.086	8.5	8.1	0.04	364	0.001	0.74	0.005	0.28	-0.1	4.4	0.05	147	1.6	0.06	1.8	0.05	
U27174	SAMPLE 10-11	3.21	44.5	17.4	190	488	59.3	13.6	190	0.77	9.9	2.1	1.2	5.1	44.7	3.23	0.57	0.20	49	0.38	0.084	9.1	12.9	0.27	520	0.001	0.96	0.007	0.34	-0.1	6.0	0.03	218	4.3	0.08	2.2	0.11	
U27175	SAMPLE 15	1.79	42.8	19.1	200	431	45.3	11.2	78	0.79	26.7	2.0	1.0	6.6	38.7	2.51	0.50	0.32	38	0.29	0.111	8.7	11.7	0.17	328	0.001	0.96	0.007	0.37	-0.1	5.6	0.16	210	2.1	0.06	2.5	0.15	
V0175	SAMPLE 5 SPLIT DUP	2.07	33.7	17.2	182	433	33.2	8.2	90	0.81	3.2	1.6	0.8	2.5	13.5	2.32	0.30	0.26	42	0.07	0.055	3.7	9.9	0.06	267	0.001	0.73	0.008	0.30	-0.05	5.3	0.02	124	2.8	0.07	2.1	0.06	
V0176	SAMPLE 16	2.28	42.9	16.0	207	443	35.7	11.1	20	0.33	4.4	1.5	0.5	4.1	17.5	2.22	0.53	0.31	34	0.14	0.049	5.1	8.1	0.07	248	0.001	0.83	0.007	0.30	-0.1	5.2	-0.02	228	2.9	0.07	2.4	0.10	
V0179	SAMPLE 16 SPLIT DUP	2.08	41.4	18.3	214	411	33.5	10.0	19	0.33	4.3	1.4	-0.2	3.9	16.6	2.23	0.49	0.31	33	0.14	0.048	5.0	7.9	0.07	270	0.001	0.82	0.007	0.30	-0.1	5.1	-0.02	217	2.9	0.07	2.4	0.09	
U27177	SAMPLE 17	1.75	37.9	19.3	192	334	38.7	11.6	385	2.06	5.0	1.7	0.5	6.4	51.2	2.01	0.32	0.30	53	1.45	0.116	8.8	13.8	0.79	374	0.001	1.06	0.009	0.40	-0.1	7.6	0.05	163	1.9	0.06	2.6	0.07	
U27178	SAMPLE 20	0.97	54.1	17.5	136	433	17.4	1.5	15	0.27	1.8	0.9	-0.8	1.7	10.1	3.98	0.32	0.40	33	0.09	0.002	2.7	8.7	0.08	336	0.001	1.70	0.007	0.31	-0.1	4.4	-0.02	182	2.8	0.07	1.7	0.03	
U27179	SAMPLE 21	1.07	37.7	16.9	137	426	36.1	9.9	305	2.51	6.1	1.9	0.7	6.1	48.5	2.74	0.50	0.27	50	1.36	0.117	8.0	13.9	0.67	437	0.001	1.07	0.008	0.33	-0.1	7.1	0.04	167	2.2	0.05	2.0	0.05	
U27180	SAMPLE 22	1.53	34.5	15.2	168	361	38.7	9.7	345	2.44	3.5	1.8	0.5	5.7	72.7	2.38	0.45	0.26	54	3.63	0.130	9.1	14.6	0.86	433	0.001	1.20	0.011	0.37	-0.1	7.2	0.03	170	2.0	0.05	2.4	0.06	
V0178	SAMPLE 22 SPLIT DUP	1.52	36.0	16.4	188	378	40.5	10.3	309	2.30	3.9	2.1	0.9	5.9	83.7	2.49	0.28	0.26	36	3.58	0.147	10.7	16.6	0.87	490	0.001	1.12	0.013	0.40	-0.05	7.8	0.02	163	2.6	0.08	3.1	0.06	
U27181	SAMPLE 23	1.00	30.4	30.1	200	367	61.5	12.7	284	0.94	10.4	2.9	0.4	7.6	79.2	2.97	0.78	0.36	47	2.11	0.193	11.5	15.1	0.84	572	0.002	0.91	0.016	0.38	-0.1	9.6	0.03	343	3.2	0.07	2.3	0.14	
U27182	SAMPLE 25	0.54	30.5	15.5	44.3	327	5.4	1.1	14	0.33	4.3	0.7	-0.2	1.2	11.0	0.84	0.23	0.33	19	0.11	0.002	1.9	5.9	0.12	419	0.001	0.72	0.007	0.32	-0.1	3.4	0.04	167	1.1	0.06	1.6	-0.02	
U27183	SAMPLE 26	0.85	37.1	17.4	158	283	28.2	7.7	19	0.33	12.8	0.9	-0.2	3.5	17.9	1.62	0.40	0.29	19	0.16	0.033	4.6	5.3	0.08	365	0.001	0.62	0.006	0.28	-0.1	4.2	0.04	127	1.1	0.05	1.6	0.06	
U27184	SAMPLE 27	1.15	29.1	13.8	110	298	29.8	11.7	602	1.46	8.3	1.4	0.5	4.9	29.9	1.85	0.36	0.29	38	1.46	0.097	7.9	10.1	1.08	300	0.001	0.74	0.006	0.30	-0.1	5.9	0.07	86	1.0	0.06	1.9	0.07	
U27185	SAMPLE 28	0.92	28.2	16.3	148	243	32.4	11.0	850	4.38	14.9	1.3	0.4	5.4	26.4	13.9	0.31	0.25	38	1.48	0.055	6.3	9.4	0.89	298	0.001	0.83	0.010	0.35	-0.1	6.9	0.08	116	1.2	0.05	2.0	0.07	
U27186	SAMPLE 29	0.17	42.5	15.7	41.7	179	19.9	0.2	7	0.07	-0.1	1.5	9.4	0.50	0.10	0.26	0.13	0.26	14	0.11	0.002	1.7	3.4	0.04	308	0.001	0.80	0.007	0.26	-0.1	3.1	-0.02	63	0.9	0.08	3.1	0.02	
U27187	SAMPLE 31	0.29	31.6	22.0	229	311	3.1	1.2	31	0.27	0.3	0.2	0.2	1.2	1.2	0.27	0.13	0.35	14	0.30	0.119	3.2	5.6	0.30	461	0.001												

UZ7252	CMR-16GG-22	1.00	8.38	5.42	17.4	62	4.0	2.2	9.0	0.86	1.5	0.9	0.2	1.0	1260	0.15	0.22	0.04	10	0.79	0.047	6.6	2.3	0.12	1650	0.007	-0.20	0.52	0.003	0.03	-0.01	3.9	-0.02	49	0.4	0.06	1.8	0.13	
UZ7253	CMR-16GG-23	0.72	34.4	12.2	136	271	3.5	1.2	16	0.19	0.4	1.1	-0.2	1.3	153	2.09	0.26	0.24	15	0.07	0.043	5.1	4.5	0.06	1260	-0.001	-0.20	0.44	0.009	0.19	-0.1	3.4	-0.02	102	0.4	0.06	1.1	0.02	
UZ7254	CMR-16GG-24	1.15	39.1	14.9	148	352	3.1	0.1	35	0.21	0.4	1.3	-0.2	1.3	30	2.45	0.26	0.24	15	0.07	0.043	5.1	4.5	0.06	1260	-0.001	-0.20	0.44	0.009	0.19	-0.1	3.4	-0.02	102	0.4	0.06	1.1	0.02	
UZ7255	CMR-16GG-25	1.30	34.6	13.9	148	270	27.6	0.1	53	0.32	0.22	13.5	1.5	-0.2	5.9	36.1	1.64	0.33	0.22	35	1.96	0.117	6.4	9.9	0.89	349	0.001	-0.07	0.67	0.029	0.26	-0.1	6.7	0.05	10.0	1.1	0.03	1.8	0.07
UZ7256	CMR-16GG-26	1.64	30.3	12.7	136	229	30.3	10.0	523	2.84	3.1	1.6	0.4	4.9	49.2	1.59	0.43	0.19	43	3.58	0.112	6.8	12.3	1.27	249	0.001	-0.20	0.55	0.033	0.22	-0.1	6.9	0.04	94	0.8	0.03	1.5	0.08	
UZ7257	CMR-16GG-27	2.07	26.7	10.3	115	200	26.1	0.3	88	4.06	2.7	0.5	-0.2	5.4	37.7	1.31	0.29	0.19	35	0.84	0.18	6.3	14.1	1.29	369	0.001	-0.20	0.76	0.022	0.16	-0.1	1.9	0.02	1.5	0.15	0.04	0.16	0.04	
UZ7258	CMR-16GG-28	2.21	21.9	8.48	6.4	56	2.4	0.6	1.02	0.6	0.9	-0.2	2.2	468	0.08	0.47	0.16	8	0.26	0.019	9.6	1.8	-0.01	897	0.003	-0.20	0.39	0.005	0.03	-0.1	2.9	-0.02	44	0.7	0.08	1.1	0.03		
UZ7259	CMR-16GG-29	1.21	26.0	12.9	104	212	27.9	0.6	100	1.34	3.7	1.5	-0.2	4.4	28.3	1.34	0.20	0.17	22	1.35	0.086	5.9	7.8	0.49	270	0.001	-0.20	0.68	0.012	0.24	-0.1	4.4	-0.02	10.0	0.9	0.03	1.7	0.03	
UZ7260	CMR-16GG-30	1.94	20.4	20.9	115	200	26.1	0.3	88	4.06	2.7	0.5	-0.2	5.4	37.7	1.31	0.29	0.19	35	0.84	0.18	6.3	14.1	1.29	369	0.001	-0.20	0.76	0.022	0.16	-0.1	1.9	0.02	1.5	0.15	0.04	0.16	0.04	
VD0734	CMR-16GG-30 SPLIT DUP	0.93	26.3	13.8	117	235	26.0	0.8	889	4.66	7.2	1.5	-0.2	5.6	46.7	1.50	0.11	0.18	41	1.92	0.138	7.9	12.7	0.85	341	0.001	-0.20	0.95	0.015	0.34	-0.05	6.6	0.05	9.2	0.9	0.02	2.6	0.06	
UZ7261	CMR-16GG-31	1.82	41.8	12.9	187	449	25.8	4.6	1.6	0.24	5.6	2.0	-0.2	3.8	49.9	1.45	0.77	0.23	22	0.25	0.073	5.8	5.9	0.27	347	0.001	-0.20	0.43	0.011	0.21	-0.1	4.1	0.06	291	4.5	0.07	1.0	0.13	
UZ7262	CMR-16GG-32	2.99	28.6	10.8	176	458	35.7	7.3	0.56	2.51	1.7	2.2	-0.2	5.2	74.0	3.37	0.96	0.14	50	4.59	0.207	9.0	17.9	1.38	298	0.002	-0.20	0.80	0.019	0.31	-0.1	6.2	0.04	11.9	2.8	0.05	1.8	0.04	
UZ7263	CMR-16GG-33	1.87	5.96	1.96	11.8	34	3.5	1.7	38	0.08	0.6	0.3	-0.2	0.8	20.0	0.22	0.21	0.03	6	0.67	0.244	2.4	1.7	0.07	331	0.002	-0.20	0.18	0.004	0.03	-0.1	1.7	-0.02	15	0.5	0.03	0.4	0.05	
VA0770	CMR-16GG-33 SPLIT DUP	1.93	6.09	1.71	14.2	40	3.8	1.8	38	0.09	0.6	0.3	-0.2	0.8	199	0.22	0.32	0.03	6	0.65	0.267	2.5	1.8	0.07	341	0.002	-0.20	0.20	0.006	0.03	-0.1	1.6	-0.02	15	0.3	-0.02	0.4	0.05	
UZ7264	CMR-16GG-34	2.95	30.3	12.0	212	516	38.4	7.7	648	3.58	1.7	2.6	-0.2	5.7	71.3	4.05	0.95	0.17	86	2.30	0.121	9.6	21.0	0.94	414	0.002	-0.20	0.84	0.027	0.32	-0.1	7.3	0.03	129	4.0	0.05	2.2	0.07	
UZ7265	CMR-16GG-35	1.07	33.0	12.9	44.1	102	2.4	1.2	9	0.07	0.1	1.4	-0.2	3.3	687	0.40	0.19	0.28	17	0.11	0.046	11.5	3.5	0.03	1140	0.003	-0.20	0.62	0.009	0.07	-0.1	3.9	-0.02	7.9	2.3	0.11	1.5	0.04	
UZ7266	CMR-16GG-36	0.78	36.5	17.6	129	230	29.5	7.9	55	1.02	14.3	0.6	-0.2	1.3	16.4	1.37	0.17	0.27	19	0.14	0.009	1.8	6.0	0.17	256	-0.001	-0.20	0.68	0.016	0.26	-0.1	4.4	0.03	116	1.1	0.05	1.7	0.09	
UZ7267	CMR-16GG-37	2.75	17.8	5.92	58.9	49	5.9	1.9	107	3.18	0.1	0.5	-0.2	0.6	12.6	0.19	2.29	0.28	18	0.15	0.003	1.8	2.2	0.44	62.7	0.001	-0.20	0.10	0.005	0.02	-0.1	10.9	-0.02	4.1	0.7	0.03	2.5	0.04	
UZ7268	CMR-16GG-38	3.12	38.7	16.1	138	291	31.9	7.0	1.5	0.34	2.4	1.1	-0.2	2.5	14.8	1.95	0.40	0.25	19	0.11	0.017	2.5	5.3	0.10	207	-0.001	-0.20	0.62	0.017	0.19	-0.1	4.1	-0.02	14.1	3.0	0.05	1.4	0.11	
UZ7269	CMR-16GG-39	1.35	33.0	16.1	138	247	30.1	10.0	452	3.02	4.2	1.5	-0.2	5.5	34.6	1.41	0.27	0.21	24	1.02	0.093	6.1	8.5	0.53	356	0.001	-0.20	0.83	0.059	0.26	-0.1	4.6	-0.02	96	1.2	0.04	1.6	0.08	
VD0735	CMR-16GG-40 SPLIT DUP	0.73	14.5	9.19	76.8	185	16.9	0.5	233	1.46	2.8	1.3	-0.2	4.3	46.9	0.84	0.12	0.28	25	3.04	0.096	7.2	8.8	1.16	258	-0.001	-0.20	0.50	0.034	0.18	-0.05	4.3	0.04	59	0.4	-0.02	1.3	0.04	
UZ7271	CMR-16GG-41	1.12	19.9	10.9	83.8	259	22.3	9.7	280	1.81	6.7	1.3	-0.2	3.9	42.1	0.94	0.24	0.11	24	1.85	0.105	5.8	9.6	0.71	221	0.001	-0.20	0.45	0.046	0.18	-0.1	4.7	0.07	5.5	0.5	0.03	1.2	0.07	
UZ7272	CMR-16GG-42	0.65	38.1	16.8	129	230	29.5	10.8	664	3.10	5.5	1.5	-0.2	6.2	91.2	1.33	0.19	0.23	37	3.79	0.102	6.8	11.4	1.01	438	0.001	-0.20	0.75	0.101	0.31	-0.1	8.2	0.06	7.2	1.0	0.05	1.8	0.11	
UZ7273	CMR-16GG-43	1.61	21.1	12.2	117	230	25.2	12.0	851	3.21	4.0	1.1	-0.2	5.1	63.0	1.04	0.17	0.15	27	2.32	0.098	6.4	8.7	0.62	398	0.001	-0.20	0.66	0.081	0.26	-0.1	5.2	0.05	59	0.7	0.04	1.6	0.16	
UZ7274	CMR-16GG-44	1.60	33.1	15.8	173	182	24.8	8.1	37	0.90	2.6	1.6	1.4	6.2	82.0	1.39	0.28	0.31	32	0.22	0.086	10.3	10.4	0.04	430	0.001	-0.20	0.80	0.006	0.30	-0.1	5.1	0.12	120	2.7	0.04	2.0	-0.02	
UZ7275	CMR-16GG-45	1.27	28.6	12.3	160	200	23.9	4.2	77	1.31	2.3	1.8	0.9	5.2	41.4	2.03	0.31	0.21	42	0.22	0.087	8.3	14.7	0.06	524	0.001	-0.20	0.88	0.006	0.33	-0.1	5.2	0.12	88	1.6	0.04	2.3	-0.02	
UZ7276	CMR-16GG-46	1.00	28.7	10.5	86.3	212	8.4	1.3	32	0.92	2.4	1.4	-0.2	2.7	26.0	0.61	0.54	0.22	26	0.16	0.050	6.1	9.4	0.04	410	-0.001	-0.20	0.73	0.005	0.29	-0.1	3.2	0.07	11.1	1.4	0.06	1.8	-0.02	
UZ7277	CMR-16GG-47	0.72	29.9	11.0	83.3	122	15.9	2.4	38	0.42	4.9	1.3	0.6	5.2	29.3	0.57	0.29	0.17	29	0.24	0.084	8.0	10.2	0.04	415	0.001	-0.20	0.75	0.004	0.28	-0.1	2.9	0.10	7.9	0.4	0.03	1.9	-0.02	
UZ7278	CMR-16GG-48	1.10	18.9	10.1	113	200	26.1	0.3	88	4.06	2.7	0.5	-0.2	5.4	37.7	1.31	0.29	0.19	35	0.84	0.18	6.3	14.1	1.29	369	0.001	-0.20	0.76	0.022	0.16	-0.1	1.9	0.02	1.5	0.15	0.04	0.16	0.04	
UZ7279	CMR-16GG-49	1.07	31.2	12.9	117	222	17.6	3.9	649	5.50	2.6	1.7	-0.2	5.3	108	1.06	0.33	0.25	36	0.37	0.144	11.3	12.5	0.15	441	0.002	-0.20	0.81	0.005	0.30	-0.1	4.9	0.07	11.5	1.3	0.04	2.0	-0.02	
UZ7280	CMR-16GG-50	1.33	34.4	14.2	106	301	21.0	4.9	30	0.50	3.9	1.9	0.5	6.4	86.5	1.34	0.38	0.25	36	0.27	0.110	11.9	10.6	0.04	477	0.001	-0.20	0.84	0.004	0.31	-0.1	5.3	0.15	175	1.4	0.05	2.3	0.04	
VD0736	CMR-16GG-50 SPLIT DUP	1.38	34.7	14.5	106	301	21.0	4.9	30	0.50	3.9	1.9	0.5	6.4	86.5	1.34	0.38	0.25	36	0.27	0.111	11.9	10.6	0.04	477	0.001	-0.20	0.84	0.004	0.31	-0.1	5.3	0.15	175	1.4	0.05	2.3	0.04	
UZ7281	CMR-16GG-51	1.54	45.3	16.2	150	341	32.5	8.0	217	1.79	6.9	2.1	-0.2	7.4	97.8	2.64	0.40	0.33	52	0.31	0.143	13.5	15.9	0.08	471	0.002	-0.20	0.99	0.004	0.34	-0.1	6.8	0.10	16.1	1.7	0.06	2.6	0.02	
UZ7282	CMR-16GG-52	1.53	33.6	12.0	117	288	17.2	4.3	35	0.59	5.9	1.5	-0.2	4.3	25.0	1.82	0.20	0.19	29	0.17	0.056	7.2	10.0	0.07	215	-0.001	-0.20	0.75	0.004	0.26	-0.1	4.0	0.07	138	1.5	0.04	2.0	-0.02	
UZ7283	CMR-16GG-53	1.26	20.3	10.9	127	200	26.1	0.3	88	4.06	2.7	0.5	-0.2	5.4	37.7	1.31	0.29	0.19	35	0.84	0.18	6.3	14.1	1.29	369	0.001	-0.20	0.76	0.022	0.16	-0.1	1.9	0.02	1.5	0.15	0.04	0.16	0.04	
UZ7284	CMR-16GG-54	1.32	26.8	13.8	127	247	27.3	8.9	877	1.24	11.4	1.0	-0.2	3.9	16.5	1.11	0.26	0.17	22																				

V0743	CM18-05-GC2-20 SPLIT DUP	0.97	38.2	18.8	196	348	6.4	2.9	35	0.65	2.8	1.2	<-0.2	1.8	29.1	2.27	0.12	0.33	25	0.18	0.008	4.2	7.1	0.17	247	<-0.01	<-2.0	0.77	0.008	0.30	<-0.05	5.6	0.03	227	1.7	0.05	2.0	0.03
U27381	CM18-05-GC2-21	0.65	35.6	15.6	136	287	22.4	8.6	1	0.41	2.9	0.8	<-0.2	1.9	13.8	1.68	0.15	0.29	23	0.12	0.010	3.2	6.7	0.11	241	<-0.01	37	0.74	0.008	0.31	<-0.1	4.3	0.03	123	1.5	0.05	1.9	0.05
U27392	CM18-05-GC2-22	1.50	7.19	4.88	10.3	42	8.1	3.3	1	0.02	0.4	0.8	<-0.2	0.9	304	0.10	0.04	0.05	15	0.03	0.005	16.0	2.2	<-0.01	431	0.003	<-2.0	0.14	0.002	0.02	<-0.1	3.8	<-0.02	4.1	0.7	0.04	1.5	0.08
U27393	CM18-05-GC2-23	1.03	26.7	15.0	129	232	29.1	9.9	146	1.64	2.1	1.3	<-0.2	5.2	25.9	1.42	0.18	0.21	29	1.10	0.062	6.7	9.2	0.49	236	<-0.01	<-2.0	0.78	0.001	0.31	<-0.1	5.7	0.08	135	1.4	0.06	2.2	0.14
U27354	CM18-05-GC2-24	0.69	20.8	10.4	95.0	152	18.8	7.3	322	1.96	2.1	1.1	<-0.2	4.5	28.8	1.08	0.12	0.13	28	2.16	0.098	6.2	8.2	0.87	181	<-0.01	34	0.55	0.007	0.22	<-0.1	4.7	0.04	70	0.6	<-0.04	1.4	0.03
U27355	CM18-05-GC2-25	1.01	23.0	12.1	108	209	27.2	9.4	365	1.71	2.6	1.2	0.2	4.8	30.5	1.27	0.20	0.16	29	2.41	0.103	6.9	9.4	0.92	244	<-0.01	<-2.0	0.63	0.005	0.28	<-0.1	5.4	0.06	78	0.6	0.03	1.7	0.04
U27356	CM18-05-GC2-26	1.76	37.5	14.6	169	411	33.1	8.9	47	<-0.2	5.8	29.2	2.59	0.26	0.26	0.26	0.26	26	0.74	0.136	7.1	8.6	0.26	360	<-0.01	53	0.76	0.009	0.31	<-0.1	5.6	0.03	133	2.7	0.08	1.8	0.04	
U27357	CM18-05-GC2-27	1.76	37.5	14.6	169	411	33.1	8.9	47	<-0.2	5.8	29.2	2.59	0.26	0.26	0.26	0.26	26	0.74	0.136	7.1	8.6	0.26	360	<-0.01	53	0.76	0.009	0.31	<-0.1	5.6	0.03	133	2.7	0.08	1.8	0.04	
U27358	CM18-05-GC2-28	0.75	40.3	8.01	71.3	201	12.4	5.5	9	0.24	1.8	0.3	<-0.2	1.0	4.5	1.42	0.09	0.25	18	0.07	0.001	1.3	3.7	0.06	237	<-0.01	47	0.59	0.004	0.15	<-0.1	4.8	<-0.02	105	1.3	0.07	1.2	0.04
U27359	CM18-05-GC2-29	1.78	42.1	17.4	134	264	30.0	10.2	27	0.20	3.0	0.9	<-0.2	3.1	5.5	1.21	0.19	0.29	26	0.17	0.030	4.1	7.9	0.14	307	<-0.01	36	0.88	0.008	0.32	<-0.1	5.1	0.04	152	1.2	0.05	2.1	0.08
V0756	CM18-05-GC2-29 SPLIT DUP	1.85	39.8	16.5	133	256	27.6	9.9	26	1.71	2.5	0.9	<-0.2	3.0	13.7	1.28	0.16	0.29	25	0.17	0.030	3.7	7.3	0.14	299	<-0.01	38	0.84	0.008	0.31	<-0.1	5.1	0.03	141	1.3	0.03	2.0	0.07
U27390	CM18-05-GC2-30	1.17	46.3	21.9	156	274	27.9	8.3	309	1.94	3.6	1.2	<-0.2	2.0	14.7	1.58	0.21	0.21	29	0.17	0.010	2.0	6.7	0.18	256	<-0.01	<-2.0	0.85	0.010	0.31	<-0.05	6.3	0.03	114	2.0	0.07	2.2	0.09
U27381	CM18-05-GC2-31	2.86	51.6	23.8	137	229	13.7	5.5	6	0.37	2.2	1.4	<-0.2	1.5	4.6	1.95	0.58	0.36	25	0.06	0.001	1.1	4.2	0.05	199	0.001	39	0.42	0.002	0.13	<-0.1	7.2	<-0.02	281	2.7	0.10	0.9	0.37
U27382	CM18-05-GC2-32	0.85	16.7	9.21	26.0	98	1.9	1.1	4	0.06	<-0.1	0.5	<-0.2	0.6	4.2	0.24	0.17	0.16	14	0.03	0.001	0.8	3.3	0.02	169	<-0.01	<-2.0	0.27	0.002	0.10	<-0.1	2.6	<-0.02	39	0.9	0.03	0.8	0.04
U27383	CM18-05-GC2-33	1.58	41.4	18.9	134	253	29.2	10.9	32	0.96	0.9	1.3	<-0.2	5.6	26.5	1.71	0.26	0.25	24	0.63	0.096	5.9	8.3	0.19	324	<-0.01	44	0.78	0.007	0.31	<-0.1	4.4	0.03	139	2.0	0.05	2.0	0.06
U27384	CM18-05-GC2-34	1.18	28.7	14.4	121	227	30.1	10.4	636	3.45	6.9	1.2	0.3	5.3	35.3	1.37	0.18	0.21	42	2.27	0.100	6.8	11.5	1.09	326	<-0.01	<-2.0	0.82	0.007	0.30	<-0.1	7.4	0.04	89	0.9	0.05	1.8	0.07
U27385	CM18-05-GC2-35	1.18	19.1	11.7	107	227	22.9	11.1	885	3.15	4.5	0.9	<-0.2	4.4	30.4	1.08	0.12	0.16	29	1.81	0.087	5.8	8.7	0.67	282	<-0.01	<-2.0	0.73	0.008	0.27	<-0.1	5.3	0.03	69	0.9	0.04	1.6	0.17
U27387	CM18-05-GC2-37	0.21	13.7	3.70	8.3	44	1.3	1.1	5	0.03	0.3	0.3	<-0.2	0.5	8.0	0.11	0.07	0.06	8	0.02	0.003	1.6	1.4	<-0.01	73.5	0.001	<-2.0	0.12	0.004	0.04	<-0.1	2.0	<-0.02	11	0.3	0.03	0.8	0.06
U27388	CM18-05-GC2-38	0.56	23.9	14.2	97.4	571	20.7	7.6	13	0.38	4.3	0.5	<-0.2	1.3	7.8	1.08	0.09	0.18	16	0.05	0.003	3.7	5.2	0.04	398	<-0.01	33	0.50	0.002	0.27	<-0.1	2.5	<-0.02	158	1.4	0.03	1.3	0.24
U27389	CM18-05-GC2-39	0.73	6.33	7.28	84.0	294	19.1	7.1	63	1.20	8.4	0.9	0.3	2.3	18.0	0.41	0.09	0.04	17	0.27	0.083	4.9	8.4	0.10	202	<-0.01	<-2.0	0.44	<-0.01	0.17	<-0.1	2.9	0.08	141	0.5	<-0.02	1.0	0.22
U27390	CM18-05-GC2-40	1.00	12.2	10.6	98.7	333	23.3	8.9	79	1.54	7.3	1.0	<-0.2	3.0	22.0	0.65	0.17	0.10	23	0.36	0.109	5.3	10.8	0.15	246	<-0.01	<-2.0	0.56	0.001	0.23	<-0.1	4.9	0.05	96	0.8	<-0.02	1.6	0.31
U27371	CM18-05-GC2-41	0.73	5.16	6.12	55.5	294	14.6	7.0	114	1.41	4.0	1.1	0.3	2.4	27.4	0.24	0.09	0.02	17	0.87	0.141	6.3	9.5	0.27	170	<-0.01	<-2.0	0.44	0.002	0.16	<-0.1	4.1	0.10	80	0.2	<-0.02	1.3	0.32
V0756	CM18-05-GC2-41 SPLIT DUP	0.70	4.42	5.74	51.6	262	11.6	5.8	113	1.26	3.1	1.1	<-0.2	2.6	28.3	0.18	0.08	0.02	17	0.83	0.134	5.5	7.7	0.24	147	<-0.01	<-2.0	0.41	0.005	0.16	<-0.05	3.5	0.10	78	0.1	<-0.02	1.2	0.31
U27372	CM18-05-GC2-42	0.41	9.58	5.47	45.2	123	9.7	6.0	2990	24.2	3.2	0.6	<-0.2	1.8	24.9	0.30	0.10	0.08	34	1.92	0.058	11.0	10.1	1.56	364	0.001	<-2.0	0.48	0.013	0.15	<-0.1	9.9	0.03	81	0.4	<-0.02	1.3	0.44
U27373	CM18-05-GC2-43	0.32	25.0	10.4	72.2	101	9.2	11.5	51	0.31	0.8	0.6	<-0.2	3.0	6.2	0.42	0.13	0.15	8	0.06	0.009	9.9	3.0	0.03	293	0.001	<-2.0	0.31	0.003	0.12	<-0.1	4.5	<-0.02	53	1.1	0.05	1.3	0.21
U27374	CM18-05-GC2-44	0.08	1.72	0.78	8.6	4	3.8	1.1	6080	32.6	1.4	0.1	<-0.2	0.3	27.9	<-0.01	0.14	<-0.02	88	2.47	0.081	17.1	57.3	1.29	293	<-0.01	<-2.0	0.03	0.021	<-0.01	<-0.1	65.5	<-0.02	<-5	<-0.1	<-0.02	0.6	<-0.02
U27375	CM18-05-GC2-45	0.35	5.29	3.14	53.1	141	5.5	4.8	70	0.74	1.0	0.7	<-0.2	1.8	15.5	0.08	0.08	0.02	8	0.25	0.096	3.6	12.6	0.03	78.8	<-0.01	45	0.21	0.008	0.10	<-0.1	2.8	0.03	19	<-0.1	<-0.02	0.6	0.04
V06939	11-12-11	0.98	39.8	16.8	142	255	23.9	10.8	5	0.11	5.5	0.8	0.7	1.5	11.7	1.65	0.36	0.35	18	0.08	0.008	2.4	4.5	0.05	312	<-0.01	<-2.0	0.63	0.005	0.10	<-0.1	3.5	0.04	150	1.9	0.06	1.2	0.07
V06940	11-12-12	1.22	34.9	15.7	163	270	30.9	8.7	154	1.07	2.7	1.6	0.3	5.8	31.3	1.90	0.35	0.25	39	1.16	0.095	6.8	11.2	0.48	320	0.001	<-2.0	1.08	0.009	0.39	<-0.1	5.8	0.04	124	1.4	0.05	2.8	0.03
V06941	11-12-15	0.61	36.8	18.4	89.4	227	21.9	7.5	28	0.32	0.4	0.7	<-0.2	1.5	12.3	0.91	0.11	0.32	36	0.11	0.006	2.7	11.7	0.09	207	<-0.01	<-2.0	1.53	0.011	0.55	<-0.1	4.0	0.03	87	1.5	0.04	3.6	<-0.02
V06942	11-12-22	0.45	29.8	16.6	82.4	211	6.9	2.6	33	0.42	1.8	0.7	<-0.2	1.9	11.5	0.75	0.11	0.36	25	0.11	0.048	2.7	7.8	0.11	309	<-0.01	<-2.0	0.99	0.008	0.38	<-0.1	4.5	0.03	98	1.1	0.06	2.4	0.04
V06943	11-12-27	1.29	29.5	13.5	169	596	19.8	2.3	33	0.40	6.1	1.6	<-0.2	3.3	21.4	3.64	0.33	0.24	22	0.17	0.048	5.0	7.9	0.09	332	<-0.01	<-2.0	0.64	0.006	0.26	<-0.1	4.7	0.04	138	4.1	0.06	1.4	0.04
V0746	11-12-27 SPLIT DUP	1.28	26.9	13.4	156	607	10.4	2.2	28	0.39	5.6	1.7	<-0.2	3.4	27.6	3.69	0.16	0.21	26	0.17	0.048	6.3	9.1	0.10	376	<-0.01	<-2.0	0.73	0.007	0.28	<-0.05	4.2	0.04	145	4.3	0.05	1.7	0.05
V06944	11-12-28	3.84	43.6	17.1	353	722	32.5	10.3	68	0.53	2.7	2.3	<-0.2	3.4	21.2	5.92	0.63	0.28	32	0.15	0.033	3.5	8.0	0.10	367	<-0.01	<-2.0	0.61	0.008	0.28	<-0.1	5.6	0.03	275	8.8	0.08	1.3	0.09
V06945	11-12-29	0.62	38.5	19.0	43.1	178	4.7	1.3	21	0.32	<-0.1	0.7	0.7	1.8	7.2	0.33	0.12	0.37	24	0.10	0.034	1.6	7.4	0.11	296	<-0.01	<-2.0	0.79	0.008	0.25								

Table 4: Flouride by Fusion Test Results for project CROWN MOUNTAIN PROJECT

Maxxam Sample No	Sample ID	Flourine (F)
	Units	ppm
UZ7165	CM18-16-LDC3-43	352
UZ7168	SAMPLE 4	591
UZ7193	SAMPLE 39	574
UZ7194	11-11-59	413
UZ7199	CM18-03-GC-05	522
UZ7204	CM18-03-GC-10	827
UZ7208	CM18-03-GC-14	794
UZ7213	CM18-03-GC-19	838
UZ7219	CM18-03-GC-31	918
UZ7246	CM18-16-GC-16	422
UZ7258	CM18-16-GC-28	269
UZ7267	CM18-16-GC-37	60
UZ7274	CM18-27-GC-01	770
UZ7285	CM18-27-GC-12	740
UZ7296	CM18-27-GC-23	752
UZ7307	CM18-27-GC-34	693
UZ7318	CM18-10-GC-01	639
UZ7331	CM18-05-GC2-01	371
UZ7337	CM18-05-GC2-07	641
UZ7343	CM18-05-GC2-13	781
UZ7349	CM18-05-GC2-19	840
VA9945	11-12-29	748
VA9952	11-22-41	525
VB9483	11-19-101	666
QAQC		
Duplicates		
UZ7258 Dup	CM18-16-GC-28	312
UZ7343 Dup	CM18-05-GC2-13	805
Blanks		
Method Blank		<10
Reference Material		
STD STSD-1		1000.00
True Values STD STSD-1		950.00
Percent Difference		5.26
Reference Material		
STD STSD-1		976.00
True Values STD STSD-1		950.00
Percent Difference		2.74
Detection Limits		10.00
Maxxam SOP #		GC-840

Appendix A2: Kinetic Test Data



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-01; Sample ID: SAMPLE 23

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	610	7.87	163	54.2	10.8	0.19	<0.5	0.05	<0.005			0.005	1.890	59.8	0.0203
29-Apr-19	1	500	470	7.96	292												
6-May-19	2	500	455	8.06	224	82.6	27.0										
13-May-19	3	500	475	7.93	195												
20-May-19	4	500	445	8.07	186	38.5	39.4	0.36	0.9	0.07	0.96			0.004	1.190	72.8	0.0162
27-May-19	5	500	470	7.88	243												
3-Jun-19	6	500	480	7.88	375	24.6	55.8										
10-Jun-19	7	500	480	7.76	376												
17-Jun-19	8	500	460	7.83	307	22.4	38.0	0.22	0.8	2.25				0.002	0.579	141	0.0099
24-Jun-19	9	500	455	7.89	265												
1-Jul-19	10	500	445	7.99	217	21.6	40.7										
8-Jul-19	11	500	475	7.97	155												
15-Jul-19	12	500	460	8.05	160	24.0	36.5	0.27	<0.5	4.00	0.36			0.006	1.350	73.9	0.0217
22-Jul-19	13	500	475	8.07	161												
29-Jul-19	14	500	465	8.13	146	16.8	47.1										
5-Aug-19	15	500	470	8.01	136												
12-Aug-19	16	500	455	8.05	124	13.4	41.5	0.23	0.9	1.53	0.006			<0.003	0.604	60.0	0.0256
19-Aug-19	17	500	480	8.06	130												
26-Aug-19	18	500	475	8.16	118	10.9	40.9										
2-Sep-19	19	500	480	8.08	125												
9-Sep-19	20	500	465	8.18	146	12.2	56.7	0.31	1.7	1.11	<0.005	0.011		<0.003	1.330	72.8	0.0242
16-Sep-19	21	500	460	8.19	134												
23-Sep-19	22	500	470	8.28	141	12.9	55.6										
30-Sep-19	23	500	490	8.07	150												
7-Oct-19	24	500	475	8.21	142	11.3	58.1	0.38	1.3	0.81	<0.005	<0.005		<0.003	1.720	72.1	0.0206
14-Oct-19	25	500	470	8.17	142												
21-Oct-19	26	500	465	8.18	152	10.7	67.8										
28-Oct-19	27	500	475	8.09	146												
4-Nov-19	28	500	475	8.01	134	10.1	56.7	0.24	1.0	0.52	<0.005	<0.005		0.003	0.929	67.9	0.0159
11-Nov-19	29	500	465	8.21	164												
18-Nov-19	30	500	450	8.08	154	14.9	64.7										
25-Nov-19	31	500	455	8.05	127												
2-Dec-19	32	500	460	8.16	134	9.6	52.9	0.21	0.8	0.34	0.007	0.009		<0.003	0.590	66.4	0.0172
9-Dec-19	33	500	450	8.23	168												
16-Dec-19	34	500	490	8.14	159	11.2	67.7										
23-Dec-19	35	500	480	8.13	193												
30-Dec-19	36	500	470	8.19	149	11.3	57.7	0.21	<0.5	0.20	<0.005	0.011		<0.003	1.149	72.9	0.0161
6-Jan-20	37	500	475	8.09	147												
13-Jan-20	38	500	465	8.22	189	14.7	85.6										
20-Jan-20	39	500	470	8.05	183												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-01; Sample ID: SAMPLE 23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	610	0.00172	0.000412	0.0817	<0.00001	<0.000005	<0.05	0.000169	0.000168	15.5	<0.0001	0.00230	0.00084	<0.00005	<0.005
29-Apr-19	1	500	470														
6-May-19	2	500	455														
13-May-19	3	500	475														
20-May-19	4	500	445	0.00288	0.000577	0.0474	<0.00001	<0.000005	<0.05	0.000157	0.000147	18.6	<0.0001	0.00210	0.00075	<0.00005	<0.005
27-May-19	5	500	470														
3-Jun-19	6	500	480														
10-Jun-19	7	500	480														
17-Jun-19	8	500	460	0.00159	0.000169	0.0566	<0.00001	<0.000005	<0.05	<0.00005	0.000635	34.2	<0.0001	0.00668	0.00033	<0.00005	<0.005
24-Jun-19	9	500	455														
1-Jul-19	10	500	445														
8-Jul-19	11	500	475														
15-Jul-19	12	500	460	0.00186	0.000193	0.0415	<0.00001	<0.000005	<0.05	<0.00005	0.000170	18.0	<0.0001	0.00239	<0.0003	<0.00005	<0.005
22-Jul-19	13	500	475														
29-Jul-19	14	500	465														
5-Aug-19	15	500	470														
12-Aug-19	16	500	455	0.00158	0.000200	0.0388	<0.00001	<0.000005	<0.05	<0.00005	0.000117	14.6	<0.0001	0.00163	<0.0003	<0.00005	0.0054
19-Aug-19	17	500	480														
26-Aug-19	18	500	475														
2-Sep-19	19	500	480														
9-Sep-19	20	500	465	0.00191	0.000244	0.0581	<0.00001	<0.000005	<0.05	<0.00005	0.000139	17.8	<0.0001	0.00159	0.00032	<0.00005	0.0085
16-Sep-19	21	500	460														
23-Sep-19	22	500	470														
30-Sep-19	23	500	490														
7-Oct-19	24	500	475	0.00185	0.000151	0.0722	<0.00001	<0.000005	<0.05	<0.00005	0.000114	17.5	<0.0001	0.00112	<0.0003	<0.00005	<0.005
14-Oct-19	25	500	470														
21-Oct-19	26	500	465														
28-Oct-19	27	500	475														
4-Nov-19	28	500	475	0.00132	0.000152	0.0701	<0.00001	<0.000005	<0.05	<0.00005	0.000110	16.5	<0.0001	0.000624	<0.0003	<0.00005	<0.005
11-Nov-19	29	500	465														
18-Nov-19	30	500	450														
25-Nov-19	31	500	455														
2-Dec-19	32	500	460	0.00138	0.000142	0.0701	<0.00001	<0.000005	<0.05	<0.00005	0.000109	15.8	<0.0001	0.000214	0.0014	<0.00005	<0.005
9-Dec-19	33	500	450														
16-Dec-19	34	500	490														
23-Dec-19	35	500	480														
30-Dec-19	36	500	470	0.00179	0.000171	0.0791	<0.00001	<0.000005	<0.05	<0.00005	0.000108	17.2	0.00010	0.000101	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	475														
13-Jan-20	38	500	465														
20-Jan-20	39	500	470														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-01; Sample ID: SAMPLE 23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	610	<0.00005	0.00967	5.14	0.0289	<0.00001	0.0040	0.0489	0.00714	2.50	0.00493	0.0548	0.48	<0.000005	1.25
29-Apr-19	1	500	470														
6-May-19	2	500	455														
13-May-19	3	500	475														
20-May-19	4	500	445	<0.00005	0.0174	6.38	0.0330	<0.00001	0.0030	0.146	0.00665	2.47	0.00463	0.0279	0.70	<0.000005	1.29
27-May-19	5	500	470														
3-Jun-19	6	500	480														
10-Jun-19	7	500	480														
17-Jun-19	8	500	460	0.00049	0.0125	13.5	0.131	0.000012	<0.002	0.0431	0.0157	1.71	0.00181	0.0161	0.71	<0.000005	0.726
24-Jun-19	9	500	455														
1-Jul-19	10	500	445														
8-Jul-19	11	500	475														
15-Jul-19	12	500	460	<0.00005	0.00912	7.03	0.0518	0.000013	<0.002	0.0608	0.00533	1.17	0.00104	0.0160	0.62	<0.000005	0.363
22-Jul-19	13	500	475														
29-Jul-19	14	500	465														
5-Aug-19	15	500	470														
12-Aug-19	16	500	455	<0.00005	0.00759	5.73	0.0360	<0.00001	<0.002	0.0472	0.00357	1.03	0.00086	0.0115	0.55	<0.000005	0.26
19-Aug-19	17	500	480														
26-Aug-19	18	500	475														
2-Sep-19	19	500	480														
9-Sep-19	20	500	465	<0.00005	0.0088	6.87	0.0369	<0.00001	<0.002	0.047	0.00401	1.28	0.00095	0.0111	0.67	<0.000005	0.28
16-Sep-19	21	500	460														
23-Sep-19	22	500	470														
30-Sep-19	23	500	490														
7-Oct-19	24	500	475	<0.00005	0.00769	6.91	0.0271	<0.00001	<0.002	0.0343	0.00308	1.33	0.000854	0.0113	0.64	<0.000005	0.224
14-Oct-19	25	500	470														
21-Oct-19	26	500	465														
28-Oct-19	27	500	475														
4-Nov-19	28	500	475	<0.00005	0.00534	6.45	0.0123	<0.00001	0.0051	0.0225	0.00265	1.08	0.000730	0.0101	0.52	<0.000005	0.153
11-Nov-19	29	500	465														
18-Nov-19	30	500	450														
25-Nov-19	31	500	455														
2-Dec-19	32	500	460	<0.00005	0.00545	6.52	0.00413	<0.00001	<0.002	0.0197	0.00220	1.07	0.000737	0.00980	0.51	<0.000005	0.124
9-Dec-19	33	500	450														
16-Dec-19	34	500	490														
23-Dec-19	35	500	480														
30-Dec-19	36	500	470	<0.00005	0.00527	7.26	0.00252	<0.00001	<0.002	0.0180	0.00210	1.15	0.000711	0.0117	0.53	<0.000005	0.119
6-Jan-20	37	500	475														
13-Jan-20	38	500	465														
20-Jan-20	39	500	470														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-01; Sample ID: SAMPLE 23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	610	0.00483	18	<0.00002	0.0000660	<0.000005	<0.002	<0.0005	<0.00001	0.000495	0.00128	0.0029	<0.0001
29-Apr-19	1	500	470												
6-May-19	2	500	455												
13-May-19	3	500	475												
20-May-19	4	500	445	0.00478	13	<0.00002	0.0000810	0.0000080	<0.002	0.00087	0.000014	0.00240	0.00113	0.0029	<0.0001
27-May-19	5	500	470												
3-Jun-19	6	500	480												
10-Jun-19	7	500	480												
17-Jun-19	8	500	460	0.00900	<10	<0.00002	0.0000357	<0.000005	<0.002	<0.0005	<0.00001	0.00173	<0.0002	0.0126	<0.0001
24-Jun-19	9	500	455												
1-Jul-19	10	500	445												
8-Jul-19	11	500	475												
15-Jul-19	12	500	460	0.00644	<10	<0.00002	0.0000109	<0.000005	<0.002	<0.0005	<0.00001	0.00159	0.00030	0.0037	0.00011
22-Jul-19	13	500	475												
29-Jul-19	14	500	465												
5-Aug-19	15	500	470												
12-Aug-19	16	500	455	0.00598	<10	<0.00002	0.0000111	<0.000005	<0.002	<0.0005	<0.00001	0.001250	0.00041	0.0031	<0.0001
19-Aug-19	17	500	480												
26-Aug-19	18	500	475												
2-Sep-19	19	500	480												
9-Sep-19	20	500	465	0.00811	<10	<0.00002	0.0000129	<0.000005	<0.002	<0.0005	<0.00001	0.00146	0.00030	0.0050	<0.0001
16-Sep-19	21	500	460												
23-Sep-19	22	500	470												
30-Sep-19	23	500	490												
7-Oct-19	24	500	475	0.00835	<10	<0.00002	0.0000097	<0.000005	<0.002	<0.0005	<0.00001	0.00130	0.00024	0.0029	<0.0001
14-Oct-19	25	500	470												
21-Oct-19	26	500	465												
28-Oct-19	27	500	475												
4-Nov-19	28	500	475	0.00938	<10	<0.00002	0.0000106	<0.000005	<0.002	<0.0005	<0.00001	0.00129	0.00022	0.0028	<0.0001
11-Nov-19	29	500	465												
18-Nov-19	30	500	450												
25-Nov-19	31	500	455												
2-Dec-19	32	500	460	0.00859	<10	<0.00002	0.0000094	<0.000005	<0.002	<0.0005	<0.00001	0.00137	0.00027	0.0031	<0.0001
9-Dec-19	33	500	450												
16-Dec-19	34	500	490												
23-Dec-19	35	500	480												
30-Dec-19	36	500	470	0.00971	<10	<0.00002	0.0000094	<0.000005	<0.002	<0.0005	<0.00001	0.00156	<0.0002	0.0024	<0.0001
6-Jan-20	37	500	475												
13-Jan-20	38	500	465												
20-Jan-20	39	500	470												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-02; Sample ID: CM18-03--GC-32

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003	0.0002
22-Apr-19	0	750	570	8.10	107	15.8	26.4	0.27	1.4	0.02	<0.005			0.009	2.990	43.8	0.0789	0.00388
29-Apr-19	1	500	470	8.06	188													
6-May-19	2	500	470	7.99	229	44.4	72.8											
13-May-19	3	500	480	7.95	245													
20-May-19	4	500	465	8.01	229	41.5	75.8	0.36	<0.5	<0.02	<0.005			0.004	1.640	106	0.0222	0.00498
27-May-19	5	500	490	8.02	208													
3-Jun-19	6	500	465	7.91	171	24.8	59.7											
10-Jun-19	7	500	470	8.03	169													
17-Jun-19	8	500	470	7.95	191	24.9	60.3	0.22	<0.5	2.7	0.14			0.002	0.637	91	0.0094	0.00271
24-Jun-19	9	500	465	7.98	215													
1-Jul-19	10	500	455	7.99	187	19.0	59.8											
8-Jul-19	11	500	470	8.01	182													
15-Jul-19	12	500	470	7.92	191	17.4	53.5	0.15	<0.5	5.9	0.54			0.003	1.020	91	0.0099	0.00172
22-Jul-19	13	500	475	7.90	206													
29-Jul-19	14	500	470	7.88	177	13.8	48.6											
5-Aug-19	15	500	465	7.92	169													
12-Aug-19	16	500	475	7.95	159	14.1	49.6	0.12	0.8	4.4	0.14			<0.003	1.005	77.5	0.0545	0.00117
19-Aug-19	17	500	480	8.01	167													
26-Aug-19	18	500	475	8.04	156	24.4	55.0											
2-Sep-19	19	500	480	8.02	149													
9-Sep-19	20	500	470	7.99	164	15.3	63.8	0.17	0.6	1.9	0.03	0.030		0.003	1.420	83.9	0.0320	0.00108
16-Sep-19	21	500	470	8.03	161													
23-Sep-19	22	500	460	8.30	123	13.3	44.5											
30-Sep-19	23	500	460	8.09	146													
7-Oct-19	24	500	475	8.04	157	12.8	66.0	0.13	<0.5	0.84	<0.005	0.018		0.004	1.720	82.2	0.0075	0.000709
14-Oct-19	25	500	460	7.99	171													
21-Oct-19	26	500	485	8.20	172	11.9	83.3											
28-Oct-19	27	500	480	8.02	154													
4-Nov-19	28	500	460	7.98	168	10.9	75.6	0.13	<0.5	0.48	<0.005	0.012		0.004	0.755	86.6	0.0174	0.000558
11-Nov-19	29	500	490	7.98	171													
18-Nov-19	30	500	480	7.93	164	5.6	74.3											
25-Nov-19	31	500	480	8.08	193													
2-Dec-19	32	500	480	8.00	206	10.2	89.3	0.16	<0.5	0.3	<0.005	0.019		<0.003	0.692	109.0	0.0065	0.00065
9-Dec-19	33	500	480	8.18	201													
16-Dec-19	34	500	490	7.93	201	11.2	90.3											
23-Dec-19	35	500	480	7.96	186													
30-Dec-19	36	500	475	8.06	195	8.9	84.9	0.15	<0.5	0.20	<0.005	0.015		<0.003	1.102	101.0	0.0063	0.000545
6-Jan-20	37	500	480	7.99	177													
13-Jan-20	38	500	485	8.23	192	7.8	89.9					0.023	0.0177					
20-Jan-20	39	500	480	8.20	183													

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-02; Sample ID: CM18-03--GC-32

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005	0.0005
22-Apr-19	0	750	570	0.00143	0.203	0.000019	0.0000100	<0.05	0.000159	0.0000630	11.0	0.00026	0.00143	0.00105	0.000130	0.561	0.000626	0.0115
29-Apr-19	1	500	470															
6-May-19	2	500	470															
13-May-19	3	500	480															
20-May-19	4	500	465	0.000598	0.0872	<0.00001	0.0000060	<0.05	0.000139	0.000144	25.8	<0.0001	0.00586	0.00040	<0.00005	0.0711	0.000676	0.0190
27-May-19	5	500	490															
3-Jun-19	6	500	465															
10-Jun-19	7	500	470															
17-Jun-19	8	500	470	0.000220	0.0816	<0.00001	<0.000005	<0.05	0.000064	0.000156	21.9	<0.0001	0.00451	<0.0003	<0.00005	<0.005	<0.00005	0.0098
24-Jun-19	9	500	465															
1-Jul-19	10	500	455															
8-Jul-19	11	500	470															
15-Jul-19	12	500	470	0.000177	0.0906	<0.00001	<0.000005	<0.05	<0.00005	0.000147	21.3	<0.0001	0.00421	<0.0003	<0.00005	<0.005	<0.00005	0.00839
22-Jul-19	13	500	475															
29-Jul-19	14	500	470															
5-Aug-19	15	500	465															
12-Aug-19	16	500	475	0.000349	0.101	<0.00001	0.0000056	<0.05	<0.00005	0.000158	18.3	0.00015	0.00371	0.00069	<0.00005	<0.005	0.0006	0.00653
19-Aug-19	17	500	480															
26-Aug-19	18	500	475															
2-Sep-19	19	500	480															
9-Sep-19	20	500	470	0.000200	0.119	<0.00001	<0.000005	<0.05	<0.00005	0.000148	19.6	<0.0001	0.00239	<0.0003	<0.00005	<0.005	<0.00005	0.00708
16-Sep-19	21	500	470															
23-Sep-19	22	500	460															
30-Sep-19	23	500	460															
7-Oct-19	24	500	475	0.000067	0.0828	<0.00001	<0.000005	<0.05	<0.00005	0.0000782	18.3	<0.0001	0.000212	<0.0003	<0.00005	<0.005	<0.00005	0.00630
14-Oct-19	25	500	460															
21-Oct-19	26	500	485															
28-Oct-19	27	500	480															
4-Nov-19	28	500	460	0.000096	0.0892	<0.00001	<0.000005	<0.05	<0.00005	0.0000940	19.5	<0.0001	0.000178	<0.0003	<0.00005	0.0052	<0.00005	0.00539
11-Nov-19	29	500	490															
18-Nov-19	30	500	480															
25-Nov-19	31	500	480															
2-Dec-19	32	500	480	0.000087	0.126	<0.00001	<0.000005	<0.05	<0.00005	0.000100	23.7	<0.0001	0.00010	0.0008	<0.00005	<0.005	<0.00005	0.00763
9-Dec-19	33	500	480															
16-Dec-19	34	500	490															
23-Dec-19	35	500	480															
30-Dec-19	36	500	475	0.000065	0.1290	<0.00001	<0.000005	<0.05	<0.00005	0.0000781	21.6	<0.0001	0.000074	<0.0003	<0.00005	<0.005	<0.00005	0.00624
6-Jan-20	37	500	480															
13-Jan-20	38	500	485															
20-Jan-20	39	500	480															

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄ : AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-02; Sample ID: CM18-03--GC-32

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025	10	0.00002
22-Apr-19	0	750	570	3.98	0.0243	0.000012	0.0537	0.0799	0.00490	2.53	0.00451	0.0211	0.81	0.0000070	0.539	0.00814	<10	<0.00002
29-Apr-19	1	500	470															
6-May-19	2	500	470															
13-May-19	3	500	480															
20-May-19	4	500	465	10.1	0.0575	<0.00001	0.0064	0.132	0.0139	3.10	0.00543	0.0193	1.19	<0.000005	0.535	0.0125	13	<0.00002
27-May-19	5	500	490															
3-Jun-19	6	500	465															
10-Jun-19	7	500	470															
17-Jun-19	8	500	470	8.8	0.0613	<0.00001	<0.002	0.060	0.0102	2.18	0.00308	0.0131	0.79	<0.000005	0.230	0.0092	<10	<0.00002
24-Jun-19	9	500	465															
1-Jul-19	10	500	455															
8-Jul-19	11	500	470															
15-Jul-19	12	500	470	9.14	0.0674	<0.00001	<0.002	0.0313	0.00939	1.74	0.00168	0.00919	0.66	<0.000005	0.166	0.0108	<10	<0.00002
22-Jul-19	13	500	475															
29-Jul-19	14	500	470															
5-Aug-19	15	500	465															
12-Aug-19	16	500	475	7.75	0.0640	0.000014	0.0173	0.0219	0.00842	1.27	0.00129	0.00628	0.58	0.000011	0.119	0.00984	<10	<0.00002
19-Aug-19	17	500	480															
26-Aug-19	18	500	475															
2-Sep-19	19	500	480															
9-Sep-19	20	500	470	8.47	0.0431	<0.00001	0.0034	0.0207	0.00707	1.47	0.00117	0.00673	0.60	<0.000005	0.133	0.0107	<10	0.000033
16-Sep-19	21	500	470															
23-Sep-19	22	500	460															
30-Sep-19	23	500	460															
7-Oct-19	24	500	475	8.84	0.00396	<0.00001	<0.002	0.0110	0.00371	1.24	0.000925	0.00568	0.46	<0.000005	0.108	0.0101	<10	<0.00002
14-Oct-19	25	500	460															
21-Oct-19	26	500	485															
28-Oct-19	27	500	480															
4-Nov-19	28	500	460	9.21	0.00395	<0.00001	0.0088	0.00750	0.00386	1.19	0.000880	0.00541	0.50	<0.000005	0.104	0.0130	<10	<0.00002
11-Nov-19	29	500	490															
18-Nov-19	30	500	480															
25-Nov-19	31	500	480															
2-Dec-19	32	500	480	12.20	0.0029	<0.00001	<0.002	0.0076	0.00324	1.49	0.00106	0.00650	0.61	<0.000005	0.123	0.0148	<10	<0.00002
9-Dec-19	33	500	480															
16-Dec-19	34	500	490															
23-Dec-19	35	500	480															
30-Dec-19	36	500	475	11.50	0.00277	<0.00001	<0.002	0.0060	0.00242	1.41	0.000979	0.00662	0.52	<0.000005	0.110	0.0142	<10	<0.00002
6-Jan-20	37	500	480															
13-Jan-20	38	500	485															
20-Jan-20	39	500	480															

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-02; Sample ID: CM18-03--GC-32

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	570	0.0000460	0.000110	<0.002	<0.0005	0.000047	0.000640	0.00166	0.0063	0.00011
29-Apr-19	1	500	470									
6-May-19	2	500	470									
13-May-19	3	500	480									
20-May-19	4	500	465	0.0000810	0.0000140	<0.002	<0.0005	0.000017	0.00611	0.00056	0.0095	<0.0001
27-May-19	5	500	490									
3-Jun-19	6	500	465									
10-Jun-19	7	500	470									
17-Jun-19	8	500	470	0.0000441	<0.000005	<0.002	<0.0005	<0.00001	0.00323	<0.0002	0.0078	<0.0001
24-Jun-19	9	500	465									
1-Jul-19	10	500	455									
8-Jul-19	11	500	470									
15-Jul-19	12	500	470	0.0000183	<0.000005	<0.002	<0.0005	<0.00001	0.00217	<0.0002	0.0078	<0.0001
22-Jul-19	13	500	475									
29-Jul-19	14	500	470									
5-Aug-19	15	500	465									
12-Aug-19	16	500	475	0.0000219	0.0000379	<0.002	0.00060	<0.00001	0.00172	0.00054	0.0098	<0.0001
19-Aug-19	17	500	480									
26-Aug-19	18	500	475									
2-Sep-19	19	500	480									
9-Sep-19	20	500	470	0.0000173	<0.000005	<0.002	<0.0005	<0.00001	0.00212	0.00031	0.0067	<0.0001
16-Sep-19	21	500	470									
23-Sep-19	22	500	460									
30-Sep-19	23	500	460									
7-Oct-19	24	500	475	0.0000110	<0.000005	<0.002	<0.0005	<0.00001	0.00192	<0.0002	0.0037	<0.0001
14-Oct-19	25	500	460									
21-Oct-19	26	500	485									
28-Oct-19	27	500	480									
4-Nov-19	28	500	460	0.0000126	<0.000005	<0.002	0.00051	<0.00001	0.00156	<0.0002	0.0047	<0.0001
11-Nov-19	29	500	490									
18-Nov-19	30	500	480									
25-Nov-19	31	500	480									
2-Dec-19	32	500	480	0.0000131	<0.000005	<0.002	<0.0005	<0.00001	0.00175	<0.0002	0.0038	<0.0001
9-Dec-19	33	500	480									
16-Dec-19	34	500	490									
23-Dec-19	35	500	480									
30-Dec-19	36	500	475	0.0000111	<0.000005	<0.002	<0.0005	<0.00001	0.00126	<0.0002	0.0029	<0.0001
6-Jan-20	37	500	480									
13-Jan-20	38	500	485									
20-Jan-20	39	500	480									

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-03; Sample ID: CM18-03--GC-63

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	600	4.40	1210	747	<0.5	0.34	<0.5	<0.02	<0.005			0.004	1.940	614	2.74
29-Apr-19	1	500	460	5.98	1020												
6-May-19	2	500	465	6.37	494	221	4.2										
13-May-19	3	500	490	6.61	275												
20-May-19	4	500	465	6.53	325	151	2.0	0.05	<0.5	<0.02	<0.005			0.003	0.918	148	<0.003
27-May-19	5	500	460	6.47	243												
3-Jun-19	6	500	480	6.47	198	80	5.9										
10-Jun-19	7	500	470	6.65	186												
17-Jun-19	8	500	475	6.46	187	81	1.9	0.07	<0.5	<0.02	<0.005			<0.003	0.403	80	<0.003
24-Jun-19	9	500	465	6.33	180												
1-Jul-19	10	500	460	6.52	189	76	2.6										
8-Jul-19	11	500	480	6.45	139												
15-Jul-19	12	500	480	6.38	148	55	1.4	0.08	<0.5	<0.02	<0.005			<0.003	1.270	60	0.0046
22-Jul-19	13	500	475	6.32	147												
29-Jul-19	14	500	485	6.37	121	50	2.1										
5-Aug-19	15	500	460	6.27	139												
12-Aug-19	16	500	475	6.38	110	51	1.5	0.10	0.8	<0.02	<0.005			<0.003	0.023	44	0.0054
19-Aug-19	17	500	470	6.30	104												
26-Aug-19	18	500	475	6.68	105	42	1.9										
2-Sep-19	19	500	485	6.59	96												
9-Sep-19	20	500	470	6.37	93	32	1.8	0.14	1.2	<0.02	<0.005	0.020		<0.003	1.223	38	0.0104
16-Sep-19	21	500	480	6.37	88												
23-Sep-19	22	500	495	6.41	81	28.7	1.6										
30-Sep-19	23	500	480	6.35	81												
7-Oct-19	24	500	485	6.36	80	34.0	0.7	0.15	0.6	<0.02	<0.005	0.044		<0.003	1.859	32.3	0.0033
14-Oct-19	25	500	475	6.41	87												
21-Oct-19	26	500	485	6.43	68	28.8	1.1										
28-Oct-19	27	500	480	6.44	73												
4-Nov-19	28	500	495	6.72	69	25.5	1.9	0.16	<0.5	<0.02	<0.005	0.037		<0.003	0.715	27.7	0.0062
11-Nov-19	29	500	490	6.45	67												
18-Nov-19	30	500	460	6.37	58	21.0	1.0										
25-Nov-19	31	500	490	6.61	71												
2-Dec-19	32	500	470	6.62	66	24.7	2.2	0.19	<0.5	<0.02	<0.005	0.033		<0.003	0.723	27.1	0.0117
9-Dec-19	33	500	495	6.58	59												
16-Dec-19	34	500	495	6.46	57	20.0	1.4										
23-Dec-19	35	500	485	6.56	57												
30-Dec-19	36	500	490	6.60	57	18.7	1.8	0.15	<0.5	<0.02	<0.005	0.031		<0.003	0.517	23.0	0.0167
6-Jan-20	37	500	490	6.82	58												
13-Jan-20	38	500	480	6.64	56	17.9	0.7										
20-Jan-20	39	500	490	6.71	54												

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-03; Sample ID: CM18-03--GC-63

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	600	<0.0002	0.00129	0.0528	0.0225	<0.00005	<0.5	<0.0005	0.0204	128	<0.001	2.98	0.437	0.00217	20.9
29-Apr-19	1	500	460														
6-May-19	2	500	465														
13-May-19	3	500	490														
20-May-19	4	500	465	0.000089	0.000260	0.0197	0.000117	<0.000005	<0.05	<0.00005	0.00155	38.2	<0.0001	0.188	0.00179	0.000057	0.0080
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	470														
17-Jun-19	8	500	475	0.000055	0.000082	0.0198	0.000078	<0.000005	<0.05	<0.00005	0.00096	19.5	<0.0001	0.088	0.00090	<0.00005	<0.005
24-Jun-19	9	500	465														
1-Jul-19	10	500	460														
8-Jul-19	11	500	480														
15-Jul-19	12	500	480	0.000060	0.000063	0.0174	0.000127	<0.000005	<0.05	<0.00005	0.000919	14.1	<0.0001	0.0649	0.00072	<0.00005	0.0067
22-Jul-19	13	500	475														
29-Jul-19	14	500	485														
5-Aug-19	15	500	460														
12-Aug-19	16	500	475	0.000055	0.000079	0.0189	0.000083	<0.000005	<0.05	<0.00005	0.00075	10.4	<0.0001	0.048	0.00048	<0.00005	0.0072
19-Aug-19	17	500	470														
26-Aug-19	18	500	475														
2-Sep-19	19	500	485														
9-Sep-19	20	500	470	0.000079	0.000139	0.0209	0.000082	<0.000005	<0.05	<0.00005	0.000693	8.8	<0.0001	0.0401	0.00035	<0.00005	0.0150
16-Sep-19	21	500	480														
23-Sep-19	22	500	495														
30-Sep-19	23	500	480														
7-Oct-19	24	500	485	0.000053	0.000047	0.0223	0.000057	<0.000005	<0.05	<0.00005	0.000656	7.36	<0.0001	0.0328	0.00056	<0.00005	<0.005
14-Oct-19	25	500	475														
21-Oct-19	26	500	485														
28-Oct-19	27	500	480														
4-Nov-19	28	500	495	0.000042	0.000072	0.0233	0.000049	<0.000005	<0.05	<0.00005	0.000527	6.29	<0.0001	0.0270	<0.0003	<0.00005	<0.005
11-Nov-19	29	500	490														
18-Nov-19	30	500	460														
25-Nov-19	31	500	490														
2-Dec-19	32	500	470	0.000059	0.000076	0.0299	0.000051	<0.000005	<0.05	<0.00005	0.000552	6.00	<0.0001	0.0253	0.00090	<0.00005	<0.005
9-Dec-19	33	500	495														
16-Dec-19	34	500	495														
23-Dec-19	35	500	485														
30-Dec-19	36	500	490	0.000054	0.000086	0.0344	0.000045	<0.000005	<0.05	<0.00005	0.000486	5.03	<0.0001	0.0204	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	490														
13-Jan-20	38	500	480														
20-Jan-20	39	500	490														

Detection limits raised due to dilution to bring analyte within the calibrated range.

S04

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-03; Sample ID: CM18-03--GC-63

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	600	0.00666	0.0473	71.3	4.18	<0.0001	<0.02	<0.0005	7.79	10.9	0.0150	0.0435	1.6	<0.00005	2.13
29-Apr-19	1	500	460														
6-May-19	2	500	465														
13-May-19	3	500	490														
20-May-19	4	500	465	0.000149	0.00237	12.8	0.595	<0.00001	<0.002	0.000102	0.484	1.83	0.00243	0.00798	2.46	<0.000005	0.193
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	470														
17-Jun-19	8	500	475	0.000441	0.00099	7.6	0.377	<0.00001	<0.002	0.000066	0.238	1.29	0.00148	0.00394	1.91	<0.000005	0.121
24-Jun-19	9	500	465														
1-Jul-19	10	500	460														
8-Jul-19	11	500	480														
15-Jul-19	12	500	480	<0.00005	0.00090	5.98	0.313	<0.00001	<0.002	0.000115	0.168	0.929	0.00102	0.00312	1.67	<0.000005	0.115
22-Jul-19	13	500	475														
29-Jul-19	14	500	485														
5-Aug-19	15	500	460														
12-Aug-19	16	500	475	<0.00005	0.00067	4.5	0.246	<0.00001	0.0030	0.000059	0.128	0.73	0.00087	0.00198	1.40	<0.000005	0.094
19-Aug-19	17	500	470														
26-Aug-19	18	500	475														
2-Sep-19	19	500	485														
9-Sep-19	20	500	470	0.000081	0.00059	3.88	0.228	<0.00001	0.0036	0.000090	0.110	0.621	0.00074	0.00167	1.33	0.0000056	0.082
16-Sep-19	21	500	480														
23-Sep-19	22	500	495														
30-Sep-19	23	500	480														
7-Oct-19	24	500	485	0.000226	<0.0005	3.38	0.212	<0.00001	0.0021	0.000060	0.0944	0.472	0.000584	0.00138	1.08	<0.000005	0.062
14-Oct-19	25	500	475														
21-Oct-19	26	500	485														
28-Oct-19	27	500	480														
4-Nov-19	28	500	495	<0.00005	<0.0005	2.91	0.167	<0.00001	0.0103	0.000173	0.0771	0.405	0.000479	0.00104	1.05	<0.000005	0.055
11-Nov-19	29	500	490														
18-Nov-19	30	500	460														
25-Nov-19	31	500	490														
2-Dec-19	32	500	470	<0.00005	<0.0005	2.94	0.168	<0.00001	0.0051	0.000081	0.0764	0.394	0.000468	0.00091	1.21	<0.000005	0.056
9-Dec-19	33	500	495														
16-Dec-19	34	500	495														
23-Dec-19	35	500	485														
30-Dec-19	36	500	490	<0.00005	<0.0005	2.54	0.143	<0.00001	0.0038	0.000081	0.0622	0.336	0.000402	0.00082	1.06	<0.000005	<0.05
6-Jan-20	37	500	490														
13-Jan-20	38	500	480														
20-Jan-20	39	500	490														

Detection limits raised due to dilution to bring analyte within the calibrated range.

S04

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-03; Sample ID: CM18-03--GC-63

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	600	0.178	236	<0.0002	0.000826	0.000080	<0.004	<0.005	<0.0001	0.0215	<0.002	12.0	<0.001
29-Apr-19	1	500	460												
6-May-19	2	500	465												
13-May-19	3	500	490												
20-May-19	4	500	465	0.0680	47	<0.00002	0.000173	<0.000005	<0.002	<0.0005	<0.00001	0.0000580	<0.0002	0.328	<0.0001
27-May-19	5	500	460												
3-Jun-19	6	500	480												
10-Jun-19	7	500	470												
17-Jun-19	8	500	475	0.0377	25	<0.00002	0.000129	<0.000005	<0.002	<0.0005	<0.00001	0.0000243	<0.0002	0.177	<0.0001
24-Jun-19	9	500	465												
1-Jul-19	10	500	460												
8-Jul-19	11	500	480												
15-Jul-19	12	500	480	0.0346	20	<0.00002	0.0000780	<0.000005	<0.002	<0.0005	<0.00001	0.0000181	<0.0002	0.161	<0.0001
22-Jul-19	13	500	475												
29-Jul-19	14	500	485												
5-Aug-19	15	500	460												
12-Aug-19	16	500	475	0.0270	14	0.000020	0.000091	<0.000005	<0.002	<0.0005	<0.00001	0.0000132	<0.0002	0.127	<0.0001
19-Aug-19	17	500	470												
26-Aug-19	18	500	475												
2-Sep-19	19	500	485												
9-Sep-19	20	500	470	0.0244	12	0.000023	0.0000704	0.0000052	<0.002	<0.0005	<0.00001	0.0000130	<0.0002	0.115	<0.0001
16-Sep-19	21	500	480												
23-Sep-19	22	500	495												
30-Sep-19	23	500	480												
7-Oct-19	24	500	485	0.0202	10	<0.00002	0.0000599	<0.000005	<0.002	<0.0005	<0.00001	0.0000050	<0.0002	0.105	<0.0001
14-Oct-19	25	500	475												
21-Oct-19	26	500	485												
28-Oct-19	27	500	480												
4-Nov-19	28	500	495	0.0175	<10	<0.00002	0.0000507	<0.000005	<0.002	<0.0005	<0.00001	0.0000127	<0.0002	0.0906	<0.0001
11-Nov-19	29	500	490												
18-Nov-19	30	500	460												
25-Nov-19	31	500	490												
2-Dec-19	32	500	470	0.0179	<10	<0.00002	0.0000470	<0.000005	<0.002	<0.0005	<0.00001	0.0000067	<0.0002	0.092	<0.0001
9-Dec-19	33	500	495												
16-Dec-19	34	500	495												
23-Dec-19	35	500	485												
30-Dec-19	36	500	490	0.0159	<10	<0.00002	0.0000378	<0.000005	<0.002	<0.0005	<0.00001	0.0000053	<0.0002	0.0821	<0.0001
6-Jan-20	37	500	490												
13-Jan-20	38	500	480												
20-Jan-20	39	500	490												

Detection limits raised due to dilution to bring analyte within the calibrated range.

S04

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-04; Sample ID: CM18-27--GC-37

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003	0.0002
22-Apr-19	0	750	640	8.40	83	19.8	8.0	0.63	2.6	0.10	0.011			0.293	10.980	0.5	0.401	0.00152
29-Apr-19	1	500	465	7.39	147													
6-May-19	2	500	485	7.42	120	41.4	6.0											
13-May-19	3	500	490	7.20	103													
20-May-19	4	500	465	7.21	98	32.2	3.7	0.38	<0.5	<0.02	<0.005			0.098	4.690	0.7	0.426	0.000839
27-May-19	5	500	460	7.20	91													
3-Jun-19	6	500	495	7.01	88	29.2	3.3											
10-Jun-19	7	500	470	7.24	81													
17-Jun-19	8	500	470	6.93	85	28.4	2.4	0.25	<0.5	<0.02	<0.005			0.042	1.150	<0.5	0.376	0.000681
24-Jun-19	9	500	485	6.95	79													
1-Jul-19	10	500	455	6.74	82	27.8	2.7											
8-Jul-19	11	500	480	6.85	73													
15-Jul-19	12	500	475	6.69	75	27.1	1.1	0.19	<0.5	<0.02	<0.005			0.047	1.803	<0.5	0.436	0.000628
22-Jul-19	13	500	470	6.73	72													
29-Jul-19	14	500	475	6.69	73	27.5	1.6											
5-Aug-19	15	500	465	6.67	71													
12-Aug-19	16	500	475	6.69	67	22.9	0.9	0.14	1.0	<0.02	<0.005			0.074	1.76	<0.5	0.698	0.000522
19-Aug-19	17	500	475	6.59	70													
26-Aug-19	18	500	480	6.82	66	23.0	0.6											
2-Sep-19	19	500	475	6.58	68													
9-Sep-19	20	500	475	6.56	64	21.8	1.4	0.15	0.9	<0.02	<0.005	0.021		0.099	1.203	<0.5	0.126	0.000468
16-Sep-19	21	500	485	6.60	66													
23-Sep-19	22	500	450	6.56	65	23.6	<0.5											
30-Sep-19	23	500	475	6.55	61													
7-Oct-19	24	500	470	6.51	62	21.8	<0.5	0.16	0.9	<0.02	<0.005	0.041		0.127	2.340	<0.5	0.446	0.000376
14-Oct-19	25	500	470	6.58	62													
21-Oct-19	26	500	480	6.75	51	21.5	<0.5											
28-Oct-19	27	500	470	6.64	67													
4-Nov-19	28	500	465	6.41	72	25.9	0.8	0.15	1.0	<0.02	<0.005	0.045		0.131	0.625	<0.5	0.138	0.000304
11-Nov-19	29	500	490	6.41	71													
18-Nov-19	30	500	485	6.40	62	22.8	0.7											
25-Nov-19	31	500	475	6.57	66													
2-Dec-19	32	500	490	6.75	68	23.3	1.0	0.16	0.6	<0.02	<0.005	0.044		0.129	0.137	<0.5	0.153	0.000316
9-Dec-19	33	500	480	6.51	65													
16-Dec-19	34	500	495	6.43	68	24.2	0.7											
23-Dec-19	35	500	485	6.39	64													
30-Dec-19	36	500	480	6.52	59	20.6	<0.5	0.08	<0.5	<0.02	<0.005	0.044		0.115	0.853	<0.5	0.127	0.000230
6-Jan-20	37	500	475	6.71	66													
13-Jan-20	38	500	485	6.51	65	24.6	<0.5					0.055	0.0552					
20-Jan-20	39	500	480	6.41	63													

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDN
 Leachate Chemistry of HC-04; Sample ID: CM18-27--GC-37

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005	0.0005
22-Apr-19	0	750	640	0.0138	0.0909	0.000065	0.0000080	<0.05	0.000166	0.0000190	0.212	0.00048	0.000659	0.00091	0.000125	0.106	0.000481	0.0320
29-Apr-19	1	500	465															
6-May-19	2	500	485															
13-May-19	3	500	490															
20-May-19	4	500	465	0.00485	0.0797	0.000046	0.0000100	0.066	0.000202	0.0000380	0.288	0.00075	0.000638	0.00107	0.000302	0.238	0.00110	0.0332
27-May-19	5	500	460															
3-Jun-19	6	500	495															
10-Jun-19	7	500	470															
17-Jun-19	8	500	470	0.00374	0.0406	0.000025	<0.000005	0.056	0.000109	0.0000128	0.096	0.00057	0.000308	0.00048	0.000078	0.0575	0.000165	0.0267
24-Jun-19	9	500	485															
1-Jul-19	10	500	455															
8-Jul-19	11	500	480															
15-Jul-19	12	500	475	0.00333	0.0280	0.000028	<0.000005	0.052	0.000099	0.0000192	0.081	0.00061	0.000320	0.00053	0.000088	0.055	0.00015	0.0242
22-Jul-19	13	500	470															
29-Jul-19	14	500	475															
5-Aug-19	15	500	465															
12-Aug-19	16	500	475	0.00297	0.0179	0.000020	<0.000005	<0.05	0.000096	0.0000116	<0.05	0.00092	0.000224	0.00036	0.000100	0.0444	0.000180	0.0227
19-Aug-19	17	500	475															
26-Aug-19	18	500	480															
2-Sep-19	19	500	475															
9-Sep-19	20	500	475	0.00309	0.0080	0.000014	<0.000005	<0.05	<0.00005	0.0000161	0.052	0.00023	0.000185	<0.0003	0.000056	0.035	0.00010	0.0210
16-Sep-19	21	500	485															
23-Sep-19	22	500	450															
30-Sep-19	23	500	475															
7-Oct-19	24	500	470	0.00302	0.0138	0.000018	<0.000005	<0.05	0.000074	0.0000072	<0.05	0.00067	0.000208	0.00030	0.000115	0.0372	0.000089	0.0191
14-Oct-19	25	500	470															
21-Oct-19	26	500	480															
28-Oct-19	27	500	470															
4-Nov-19	28	500	465	0.00266	0.00634	0.000011	<0.000005	<0.05	<0.00005	0.0000117	0.110	0.00024	0.000214	<0.0003	<0.00005	0.0182	<0.00005	0.0200
11-Nov-19	29	500	490															
18-Nov-19	30	500	485															
25-Nov-19	31	500	475															
2-Dec-19	32	500	490	0.00260	0.0061	<0.00001	<0.000005	<0.05	<0.00005	0.0000087	<0.05	0.00024	0.000192	0.00032	<0.00005	0.0115	<0.00005	0.0206
9-Dec-19	33	500	480															
16-Dec-19	34	500	495															
23-Dec-19	35	500	485															
30-Dec-19	36	500	480	0.00219	0.00565	0.000011	<0.000005	<0.05	<0.00005	0.0000113	<0.05	0.00018	0.000200	<0.0003	0.000051	0.0095	<0.00005	0.0169
6-Jan-20	37	500	475															
13-Jan-20	38	500	485															
20-Jan-20	39	500	480															

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-04; Sample ID: CM18-27--GC-37

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025	10	0.00002
22-Apr-19	0	750	640	<0.05	0.00100	0.000010	0.260	0.0223	0.00277	0.318	0.00121	0.00560	1.40	0.0000080	15.4	0.00627	<10	<0.00002
29-Apr-19	1	500	465															
6-May-19	2	500	485															
13-May-19	3	500	490															
20-May-19	4	500	465	<0.05	0.00178	<0.00001	0.107	0.0123	0.00254	0.382	0.00139	0.00578	2.05	0.0000160	16.0	0.00583	<10	<0.00002
27-May-19	5	500	460															
3-Jun-19	6	500	495															
10-Jun-19	7	500	470															
17-Jun-19	8	500	470	<0.05	0.00046	<0.00001	0.0656	0.00467	0.00131	0.317	0.000945	0.00404	1.99	<0.000005	15.0	0.00287	<10	<0.00002
24-Jun-19	9	500	485															
1-Jul-19	10	500	455															
8-Jul-19	11	500	480															
15-Jul-19	12	500	475	<0.05	0.00052	<0.00001	0.070	0.0029	0.00128	0.349	0.00098	0.00361	2.13	<0.000005	13.3	0.00276	<10	<0.00002
22-Jul-19	13	500	470															
29-Jul-19	14	500	475															
5-Aug-19	15	500	465															
12-Aug-19	16	500	475	<0.05	0.00031	<0.00001	0.0760	0.00188	0.00067	0.364	0.001090	0.00285	2.37	<0.000005	12.3	0.00232	<10	0.000021
19-Aug-19	17	500	475															
26-Aug-19	18	500	480															
2-Sep-19	19	500	475															
9-Sep-19	20	500	475	<0.05	0.00047	<0.00001	0.102	0.0014	0.00055	0.209	0.00045	0.00254	1.44	0.0000051	11.7	0.00162	<10	0.000037
16-Sep-19	21	500	485															
23-Sep-19	22	500	450															
30-Sep-19	23	500	475															
7-Oct-19	24	500	470	<0.05	0.00027	<0.00001	0.119	0.00106	0.00064	0.286	0.000866	0.00250	1.62	<0.000005	11.4	0.00200	<10	<0.00002
14-Oct-19	25	500	470															
21-Oct-19	26	500	480															
28-Oct-19	27	500	470															
4-Nov-19	28	500	465	<0.05	0.00052	<0.00001	0.130	0.000792	0.00066	0.192	0.000420	0.00236	1.03	<0.000005	13.2	0.00195	<10	<0.00002
11-Nov-19	29	500	490															
18-Nov-19	30	500	485															
25-Nov-19	31	500	475															
2-Dec-19	32	500	490	<0.05	0.00028	<0.00001	0.134	0.00066	0.00052	0.197	0.000453	0.00203	1.13	<0.000005	12.9	0.00207	<10	<0.00002
9-Dec-19	33	500	480															
16-Dec-19	34	500	495															
23-Dec-19	35	500	485															
30-Dec-19	36	500	480	<0.05	0.00027	<0.00001	0.120	0.000463	0.00052	0.189	0.000382	0.00190	0.89	<0.000005	11.3	0.00171	<10	<0.00002
6-Jan-20	37	500	475															
13-Jan-20	38	500	485															
20-Jan-20	39	500	480															

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-04; Sample ID: CM18-27--GC-37

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	640	0.0000170	0.0000710	<0.002	0.00184	0.000288	0.0000690	0.0105	0.0061	0.00074
29-Apr-19	1	500	465									
6-May-19	2	500	485									
13-May-19	3	500	490									
20-May-19	4	500	465	0.0000250	0.000193	<0.002	0.00670	0.000137	0.0000840	0.00391	0.0091	0.00058
27-May-19	5	500	460									
3-Jun-19	6	500	495									
10-Jun-19	7	500	470									
17-Jun-19	8	500	470	0.0000142	0.0000286	<0.002	0.00543	0.000064	0.0000214	0.00222	0.0053	0.00031
24-Jun-19	9	500	485									
1-Jul-19	10	500	455									
8-Jul-19	11	500	480									
15-Jul-19	12	500	475	0.0000170	0.000022	<0.002	0.00699	0.000039	0.0000182	0.00196	0.0055	0.00033
22-Jul-19	13	500	470									
29-Jul-19	14	500	475									
5-Aug-19	15	500	465									
12-Aug-19	16	500	475	0.0000174	0.0000236	<0.002	0.01290	0.000035	0.0000186	0.00248	0.0038	0.00077
19-Aug-19	17	500	475									
26-Aug-19	18	500	480									
2-Sep-19	19	500	475									
9-Sep-19	20	500	475	0.0000096	0.000024	<0.002	0.00312	0.000023	0.0000140	0.00112	0.0030	0.00014
16-Sep-19	21	500	485									
23-Sep-19	22	500	450									
30-Sep-19	23	500	475									
7-Oct-19	24	500	470	0.0000120	0.0000256	<0.002	0.0137	0.000015	0.0000149	0.00174	0.0033	0.00026
14-Oct-19	25	500	470									
21-Oct-19	26	500	480									
28-Oct-19	27	500	470									
4-Nov-19	28	500	465	0.0000083	0.0000065	<0.002	0.00267	<0.00001	0.0000099	0.00087	0.0030	<0.0001
11-Nov-19	29	500	490									
18-Nov-19	30	500	485									
25-Nov-19	31	500	475									
2-Dec-19	32	500	490	0.0000088	0.0000078	<0.002	0.0035	<0.00001	0.0000092	0.00087	0.0031	<0.0001
9-Dec-19	33	500	480									
16-Dec-19	34	500	495									
23-Dec-19	35	500	485									
30-Dec-19	36	500	480	0.0000083	<0.000005	<0.002	0.00353	<0.00001	0.0000066	0.00071	0.0031	<0.0001
6-Jan-20	37	500	475									
13-Jan-20	38	500	485									
20-Jan-20	39	500	480									

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-05; Sample ID: CM18-10--GC-29

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
22-Apr-19	0	750	615	5.73	432	163	0.8	<0.05	2.5	0.07	<0.005			0.006	0.830	7.6	0.0057	0.000341
29-Apr-19	1	500	465	4.90	809													
6-May-19	2	500	480	4.60	641	259	<0.5											
13-May-19	3	500	495	4.51	483													
20-May-19	4	500	470	4.29	423	182	<0.5	0.05	<0.5	<0.02	<0.005			0.002	0.628	44.4	0.170	<0.00002
27-May-19	5	500	470	4.23	369													
3-Jun-19	6	500	485	4.09	386	154	<0.5											
10-Jun-19	7	500	470	4.04	378													
17-Jun-19	8	500	465	3.80	390	159	<0.5	0.07	<0.5	<0.02	<0.005			<0.003	0.243	76.0	0.350	<0.00002
24-Jun-19	9	500	480	3.75	423													
1-Jul-19	10	500	460	3.51	470	180	<0.5											
8-Jul-19	11	500	475	3.47	483													
15-Jul-19	12	500	475	3.31	579	212	<0.5	0.12	<0.5	<0.02	<0.005			<0.003	1.310	134	2.07	<0.00002
22-Jul-19	13	500	475	3.13	858													
29-Jul-19	14	500	475	3.01	988	297	<0.5											
5-Aug-19	15	500	465	2.85	1240													
12-Aug-19	16	500	475	2.82	1180	305	<0.5	0.14	0.9	<0.02	0.006			0.004	0.694	115	5.390	<0.00004
19-Aug-19	17	500	485	2.80	1230													
26-Aug-19	18	500	475	2.75	1180	217	<0.5											
2-Sep-19	19	500	475	2.67	1270													
9-Sep-19	20	500	485	2.70	1350	259	<0.5	0.12	<0.5	<0.02	0.006	0.710		0.004	1.464	65.5	4.650	<0.00004
16-Sep-19	21	500	480	2.70	1281													
23-Sep-19	22	500	460	2.70	1250	214	<0.5											
30-Sep-19	23	500	475	2.70	1260													
7-Oct-19	24	500	480	2.69	1230	207	<0.5	0.10	<0.5	<0.02	<0.005	0.680		<0.003	0.610	37	3.440	<0.00002
14-Oct-19	25	500	460	2.68	1230													
21-Oct-19	26	500	480	2.67	1070	187	<0.5											
28-Oct-19	27	500	485	2.68	1160													
4-Nov-19	28	500	480	2.68	1280	194	<0.5	0.09	<0.5	<0.02	0.007	0.523		<0.003	0.589	27.8	2.91	<0.00002
11-Nov-19	29	500	485	2.69	1170													
18-Nov-19	30	500	485	2.70	1030	179	<0.5											
25-Nov-19	31	500	485	2.72	1080													
2-Dec-19	32	500	485	2.70	1100	162	<0.5	0.07	<0.5	<0.02	<0.005	0.360		<0.003	0.845	18	1.930	0.000020
9-Dec-19	33	500	480	2.72	977													
16-Dec-19	34	500	495	2.76	971	153	<0.5											
23-Dec-19	35	500	470	2.71	986													
30-Dec-19	36	500	480	2.72	1056	172	<0.5	0.13	<0.5	<0.02	<0.005	0.306		<0.003	1.534	14.4	2.110	<0.00002
6-Jan-20	37	500	480	2.72	1060													
13-Jan-20	38	500	485	2.78	942	126	<0.5					0.352	0.0956					
20-Jan-20	39	500	480	2.77	924													

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-05; Sample ID: CM18-10--GC-29

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
22-Apr-19	0	750	615	0.000496	0.0341	0.000090	<0.000005	0.109	0.000123	0.000466	2.11	<0.0001	0.00934	0.00324	<0.00005	0.0499	0.000126
29-Apr-19	1	500	465														
6-May-19	2	500	480														
13-May-19	3	500	495														
20-May-19	4	500	470	0.000640	0.0164	0.00187	<0.000005	0.078	0.000157	0.00699	10.4	<0.0001	0.0922	0.0230	0.000158	1.50	0.000866
27-May-19	5	500	470														
3-Jun-19	6	500	485														
10-Jun-19	7	500	470														
17-Jun-19	8	500	465	0.000424	0.0130	0.00288	<0.000005	<0.05	0.000171	0.01200	15.2	0.00011	0.1600	0.0228	0.000441	2.24	0.001690
24-Jun-19	9	500	480														
1-Jul-19	10	500	460														
8-Jul-19	11	500	475														
15-Jul-19	12	500	475	0.000147	0.0126	0.00823	<0.00001	<0.1	0.00028	0.0244	26.3	0.00127	0.280	0.0767	0.00140	7.15	0.00269
22-Jul-19	13	500	475														
29-Jul-19	14	500	475														
5-Aug-19	15	500	465														
12-Aug-19	16	500	475	0.000825	0.0135	0.01300	<0.00001	<0.1	0.000400	0.02820	21.8	0.00470	0.3160	0.1870	0.002840	33.70	0.006560
19-Aug-19	17	500	485														
26-Aug-19	18	500	475														
2-Sep-19	19	500	475														
9-Sep-19	20	500	485	0.001130	0.0150	0.00949	<0.00001	<0.1	0.000410	0.01880	13.3	0.00439	0.1920	0.1600	0.002150	41.50	0.005740
16-Sep-19	21	500	480														
23-Sep-19	22	500	460														
30-Sep-19	23	500	475														
7-Oct-19	24	500	480	0.000941	0.0146	0.00619	<0.000005	<0.05	0.000304	0.01210	7.7	0.00299	0.1240	0.1170	0.001320	30.10	0.005210
14-Oct-19	25	500	460														
21-Oct-19	26	500	480														
28-Oct-19	27	500	485														
4-Nov-19	28	500	480	0.000968	0.0150	0.00480	<0.000005	<0.05	0.000278	0.00939	5.72	0.00266	0.101	0.0905	0.00113	29.3	0.00377
11-Nov-19	29	500	485														
18-Nov-19	30	500	485														
25-Nov-19	31	500	485														
2-Dec-19	32	500	485	0.000418	0.0162	0.00359	<0.000005	<0.05	0.000239	0.00664	3.7	0.00172	0.0687	0.0690	0.000605	19.30	0.002530
9-Dec-19	33	500	480														
16-Dec-19	34	500	495														
23-Dec-19	35	500	470														
30-Dec-19	36	500	480	0.000317	0.0152	0.00337	<0.000005	<0.05	0.000197	0.00574	3.1	0.00181	0.0585	0.0600	0.000633	16.70	0.002240
6-Jan-20	37	500	480														
13-Jan-20	38	500	485														
20-Jan-20	39	500	480														

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-05; Sample ID: CM18-10--GC-29

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
22-Apr-19	0	750	615	0.0552	0.573	0.0375	<0.00001	0.0077	0.000164	0.0282	1.32	0.00224	0.00883	0.95	<0.000005	70.8	0.0617
29-Apr-19	1	500	465														
6-May-19	2	500	480														
13-May-19	3	500	495														
20-May-19	4	500	470	0.0480	4.46	1.02	<0.00001	<0.002	<0.00005	0.282	1.53	0.00296	0.00811	3.37	0.0000060	53.3	0.258
27-May-19	5	500	470														
3-Jun-19	6	500	485														
10-Jun-19	7	500	470														
17-Jun-19	8	500	465	0.0178	9.25	2.66	<0.00001	<0.002	<0.00005	0.540	1.97	0.00362	0.00558	2.87	0.0000129	28.0	0.313
24-Jun-19	9	500	480														
1-Jul-19	10	500	460														
8-Jul-19	11	500	475														
15-Jul-19	12	500	475	0.0098	16.5	4.64	<0.00002	0.0078	0.00066	1.02	3.22	0.00627	0.00702	4.02	0.000018	16.5	0.543
22-Jul-19	13	500	475														
29-Jul-19	14	500	475														
5-Aug-19	15	500	465														
12-Aug-19	16	500	475	0.0056	14.80	4.23	<0.00002	0.0066	<0.0001	1.230	3.77	0.00877	0.00667	4.27	0.0002330	7.4	0.646
19-Aug-19	17	500	485														
26-Aug-19	18	500	475														
2-Sep-19	19	500	475														
9-Sep-19	20	500	485	0.0038	7.86	2.19	<0.00002	<0.004	<0.0001	0.832	3.38	0.00895	0.00481	4.19	0.0002220	3.3	0.441
16-Sep-19	21	500	480														
23-Sep-19	22	500	460														
30-Sep-19	23	500	475														
7-Oct-19	24	500	480	0.0026	4.45	1.27	<0.00001	0.0028	<0.00005	0.579	2.54	0.00717	0.00379	3.15	0.0001580	1.9	0.283
14-Oct-19	25	500	460														
21-Oct-19	26	500	480														
28-Oct-19	27	500	485														
4-Nov-19	28	500	480	0.00204	3.28	0.857	<0.00001	0.0098	<0.00005	0.467	1.99	0.00604	0.00335	3.18	0.000142	1.24	0.235
11-Nov-19	29	500	485														
18-Nov-19	30	500	485														
25-Nov-19	31	500	485														
2-Dec-19	32	500	485	0.0020	2.13	0.56	<0.00001	<0.002	<0.00005	0.332	1.56	0.00520	0.00249	2.90	0.0000944	0.9	0.189
9-Dec-19	33	500	480														
16-Dec-19	34	500	495														
23-Dec-19	35	500	470														
30-Dec-19	36	500	480	0.0017	1.64	0.41	<0.00001	<0.002	<0.00005	0.280	1.31	0.00454	0.00258	2.35	0.0001140	0.6	0.164
6-Jan-20	37	500	480														
13-Jan-20	38	500	485														
20-Jan-20	39	500	480														

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-05; Sample ID: CM18-10--GC-29

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	615	55	<0.00002	0.000154	<0.000005	<0.002	<0.0005	<0.00001	0.000130	<0.0002	0.0282	<0.0001
29-Apr-19	1	500	465											
6-May-19	2	500	480											
13-May-19	3	500	495											
20-May-19	4	500	470	56	0.000022	0.000403	0.0000070	<0.002	<0.0005	<0.00001	0.00337	<0.0002	0.739	<0.0001
27-May-19	5	500	470											
3-Jun-19	6	500	485											
10-Jun-19	7	500	470											
17-Jun-19	8	500	465	49	<0.00002	0.000642	0.0000217	<0.002	<0.0005	<0.00001	0.00549	<0.0002	1.410	<0.0001
24-Jun-19	9	500	480											
1-Jul-19	10	500	460											
8-Jul-19	11	500	475											
15-Jul-19	12	500	475	83	<0.00004	0.00110	0.00126	<0.002	<0.001	0.000088	0.0127	<0.0004	3.11	0.00043
22-Jul-19	13	500	475											
29-Jul-19	14	500	475											
5-Aug-19	15	500	465											
12-Aug-19	16	500	475	113	0.000117	0.002210	0.0047500	<0.002	<0.001	0.000053	0.01310	<0.0004	4.560	<0.0002
19-Aug-19	17	500	485											
26-Aug-19	18	500	475											
2-Sep-19	19	500	475											
9-Sep-19	20	500	485	104	0.000155	0.002330	0.0034900	<0.002	<0.001	0.000046	0.00814	<0.0004	3.040	<0.0002
16-Sep-19	21	500	480											
23-Sep-19	22	500	460											
30-Sep-19	23	500	475											
7-Oct-19	24	500	480	85	<0.00002	0.001950	0.0017300	<0.002	<0.0005	<0.00001	0.00508	<0.0002	2.020	<0.0001
14-Oct-19	25	500	460											
21-Oct-19	26	500	480											
28-Oct-19	27	500	485											
4-Nov-19	28	500	480	80	0.000029	0.00170	0.00140	<0.002	<0.0005	<0.00001	0.00440	0.00022	1.57	<0.0001
11-Nov-19	29	500	485											
18-Nov-19	30	500	485											
25-Nov-19	31	500	485											
2-Dec-19	32	500	485	64	0.000021	0.001510	0.0006340	<0.002	<0.0005	<0.00001	0.00304	<0.0002	1.070	<0.0001
9-Dec-19	33	500	480											
16-Dec-19	34	500	495											
23-Dec-19	35	500	470											
30-Dec-19	36	500	480	60	<0.00002	0.001270	0.0005990	<0.002	<0.0005	<0.00001	0.00267	<0.0002	0.902	<0.0001
6-Jan-20	37	500	480											
13-Jan-20	38	500	485											
20-Jan-20	39	500	480											

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-06; Sample ID: CM18-05--GC2-23

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.5
22-Apr-19	0	750	620	8.22	127	26.3	26.2	0.32	1.5	0.03	<0.005			0.007	4.970	47.2	0.0658
29-Apr-19	1	500	455	7.95	155												
6-May-19	2	500	470	8.02	206	50.3	45.1										
13-May-19	3	500	500	7.93	127												
20-May-19	4	500	440	8.06	99	25.4	23.2	0.29	<0.5	<0.02	0.034			0.006	3.190	38.8	0.0699
27-May-19	5	500	490	7.85	116												
3-Jun-19	6	500	475	7.66	109	18.3	23.5										
10-Jun-19	7	500	470	7.48	140												
17-Jun-19	8	500	455	7.66	185	18.3	24.4	0.17	<0.5	0.22				<0.003	0.524	78.0	0.0214
24-Jun-19	9	500	480	7.79	211												
1-Jul-19	10	500	465	7.90	157	17.1	27.8										
8-Jul-19	11	500	470	7.69	115												
15-Jul-19	12	500	485	7.88	133	17.5	32.0	0.17	<0.5	1.26	2.24			0.017	1.780	60.7	0.0744
22-Jul-19	13	500	465	7.98	139												
29-Jul-19	14	500	485	8.06	147	20.6	45.1										
5-Aug-19	15	500	470	8.06	123												
12-Aug-19	16	500	465	8.11	112	20.3	33.7	0.17	1.3	0.54	<0.005			<0.003	0.784	49.1	0.0325
19-Aug-19	17	500	470	7.86	105												
26-Aug-19	18	500	480	8.00	116	10.5	38.2										
2-Sep-19	19	500	490	7.87	119												
9-Sep-19	20	500	465	7.92	96	8.4	35.9	0.16	<0.5	0.35	<0.005	0.013		0.009	2.290	42.0	0.0529
16-Sep-19	21	500	495	8.03	120												
23-Sep-19	22	500	480	8.02	109	12.5	39.6										
30-Sep-19	23	500	460	7.94	106												
7-Oct-19	24	500	480	7.94	108	9.5	41.4	0.15	<0.5	0.28	<0.005	0.007		0.011	1.644	50.1	0.0197
14-Oct-19	25	500	460	7.90	119												
21-Oct-19	26	500	490	7.91	103	7.8	39.0										
28-Oct-19	27	500	475	8.05	110												
4-Nov-19	28	500	480	7.92	107	8.7	43.5	0.13	<0.5	0.23	<0.005	0.018		0.004	1.188	51.8	0.0528
11-Nov-19	29	500	460	7.74	119												
18-Nov-19	30	500	475	8.00	116	8.9	51.0										
25-Nov-19	31	500	460	7.78	126												
2-Dec-19	32	500	490	8.07	131	7.4	58.0	0.15	<0.5	0.14	<0.005	0.010		<0.003	1.146	65.0	0.0291
9-Dec-19	33	500	460	8.09	133												
16-Dec-19	34	500	470	8.06	144	8.2	66.7										
23-Dec-19	35	500	455	7.95	131												
30-Dec-19	36	500	485	8.06	144	10.9	62.2	0.08	<0.5	0.14	<0.005	0.010		<0.003	1.634	71.3	0.0117
6-Jan-20	37	500	490	7.79	135												
13-Jan-20	38	500	465	8.09	140	8.8	61.5					0.015	0.0117				
20-Jan-20	39	500	480	7.77	133												

2-Dec-19: Sample drained longer than usual.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-06; Sample ID: CM18-05--GC2-23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.003	0.00002	0.0002	0.00002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005
22-Apr-19	0	750	620	0.00372	0.000924	0.136	0.000015	<0.000005	<0.05	0.000258	0.0000180	12.2	0.00012	0.00183	0.00038	0.000060	0.182
29-Apr-19	1	500	455														
6-May-19	2	500	470														
13-May-19	3	500	500														
20-May-19	4	500	440	0.00296	0.000615	0.0444	<0.00001	<0.000005	<0.05	0.000144	0.0000240	10.3	0.00021	0.00144	<0.0003	<0.00005	0.0100
27-May-19	5	500	490														
3-Jun-19	6	500	475														
10-Jun-19	7	500	470														
17-Jun-19	8	500	455	0.00240	0.000230	0.0411	<0.00001	<0.000005	<0.05	<0.00005	0.0000621	19.6	<0.0001	0.00245	<0.0003	<0.00005	<0.005
24-Jun-19	9	500	480														
1-Jul-19	10	500	465														
8-Jul-19	11	500	470														
15-Jul-19	12	500	485	0.00276	0.000248	0.0530	<0.00001	<0.000005	<0.05	<0.00005	0.0000459	14.7	<0.0001	0.00181	<0.0003	<0.00005	0.0291
22-Jul-19	13	500	465														
29-Jul-19	14	500	485														
5-Aug-19	15	500	470														
12-Aug-19	16	500	465	0.00265	0.000264	0.049	<0.00001	<0.000005	<0.05	<0.00005	0.0000357	12.0	<0.0001	0.00115	<0.0003	<0.00005	<0.005
19-Aug-19	17	500	470														
26-Aug-19	18	500	480														
2-Sep-19	19	500	490														
9-Sep-19	20	500	465	0.00192	0.000247	0.0486	<0.00001	<0.000005	<0.05	<0.00005	0.0000373	10.3	<0.0001	0.00108	<0.0003	<0.00005	<0.005
16-Sep-19	21	500	495														
23-Sep-19	22	500	480														
30-Sep-19	23	500	460														
7-Oct-19	24	500	480	0.00188	0.000135	0.0603	<0.00001	<0.000005	<0.05	<0.00005	0.0000408	12.0	<0.0001	0.000939	<0.0003	<0.00005	<0.005
14-Oct-19	25	500	460														
21-Oct-19	26	500	490														
28-Oct-19	27	500	475														
4-Nov-19	28	500	480	0.00157	0.000133	0.0635	<0.00001	<0.000005	<0.05	<0.00005	0.0000590	12.3	<0.0001	0.000698	<0.0003	<0.00005	0.0064
11-Nov-19	29	500	460														
18-Nov-19	30	500	475														
25-Nov-19	31	500	460														
2-Dec-19	32	500	490	0.00173	0.000117	0.0953	<0.00001	<0.000005	<0.05	<0.00005	0.0000469	15.2	<0.0001	0.000537	<0.0003	<0.00005	<0.005
9-Dec-19	33	500	460														
16-Dec-19	34	500	470														
23-Dec-19	35	500	455														
30-Dec-19	36	500	485	0.00154	0.000082	0.1020	<0.00001	<0.000005	<0.05	<0.00005	0.0000540	16.3	<0.0001	0.000412	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	490														
13-Jan-20	38	500	465														
20-Jan-20	39	500	480														

2-Dec-19: Sample drained longer than usual.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-06; Sample ID: CM18-05--GC2-23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.005	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005
22-Apr-19	0	750	620	0.000304	0.00831	4.06	0.00664	<0.00001	0.0241	0.0556	0.00629	3.70	0.00702	0.0332	0.99	<0.000005	0.743
29-Apr-19	1	500	455														
6-May-19	2	500	470														
13-May-19	3	500	500														
20-May-19	4	500	440	0.000074	0.00514	3.16	0.00604	<0.00001	0.0051	0.0416	0.00231	1.99	0.00417	0.0245	0.82	<0.000005	0.317
27-May-19	5	500	490														
3-Jun-19	6	500	475														
10-Jun-19	7	500	470														
17-Jun-19	8	500	455	<0.00005	0.00603	7.05	0.01500	<0.00001	<0.002	0.0203	0.00380	2.14	0.00247	0.0151	0.83	<0.000005	0.283
24-Jun-19	9	500	480														
1-Jul-19	10	500	465														
8-Jul-19	11	500	470														
15-Jul-19	12	500	485	0.000061	0.00601	5.80	0.0121	<0.00001	0.0025	0.0222	0.00289	1.72	0.00150	0.0143	0.81	<0.000005	0.218
22-Jul-19	13	500	465														
29-Jul-19	14	500	485														
5-Aug-19	15	500	470														
12-Aug-19	16	500	465	<0.00005	0.00526	4.61	0.00734	<0.00001	<0.002	0.0176	0.00169	1.42	0.00145	0.0123	0.70	<0.000005	0.161
19-Aug-19	17	500	470														
26-Aug-19	18	500	480														
2-Sep-19	19	500	490														
9-Sep-19	20	500	465	<0.00005	0.00435	3.97	0.00427	<0.00001	<0.002	0.0105	0.00185	1.44	0.00136	0.0098	0.65	<0.000005	0.127
16-Sep-19	21	500	495														
23-Sep-19	22	500	480														
30-Sep-19	23	500	460														
7-Oct-19	24	500	480	<0.00005	0.00454	4.87	0.00260	<0.00001	<0.002	0.00864	0.00186	1.47	0.00120	0.0107	0.58	<0.000005	0.118
14-Oct-19	25	500	460														
21-Oct-19	26	500	490														
28-Oct-19	27	500	475														
4-Nov-19	28	500	480	<0.00005	0.00395	5.14	0.00141	<0.00001	0.0076	0.00590	0.00221	1.49	0.00130	0.00984	0.66	<0.000005	0.102
11-Nov-19	29	500	460														
18-Nov-19	30	500	475														
25-Nov-19	31	500	460														
2-Dec-19	32	500	490	<0.00005	0.00509	6.55	0.00038	<0.00001	<0.002	0.00503	0.00217	1.71	0.00146	0.0107	0.78	<0.000005	0.103
9-Dec-19	33	500	460														
16-Dec-19	34	500	470														
23-Dec-19	35	500	455														
30-Dec-19	36	500	485	<0.00005	0.00509	7.42	0.00028	<0.00001	<0.002	0.00454	0.00228	1.81	0.00153	0.01070	0.75	<0.000005	0.104
6-Jan-20	37	500	490														
13-Jan-20	38	500	465														
20-Jan-20	39	500	480														

2-Dec-19: Sample drained longer than usual.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-06; Sample ID: CM18-05--GC2-23

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.05	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001
22-Apr-19	0	750	620	0.0105	<10	<0.00002	0.0000480	0.0000590	<0.002	<0.0005	0.000085	0.000225	0.00138	0.0016	0.00012
29-Apr-19	1	500	455												
6-May-19	2	500	470												
13-May-19	3	500	500												
20-May-19	4	500	440	0.00620	<10	<0.00002	0.0000310	0.0000100	<0.002	0.00229	0.000066	0.000536	0.00141	<0.001	<0.0001
27-May-19	5	500	490												
3-Jun-19	6	500	475												
10-Jun-19	7	500	470												
17-Jun-19	8	500	455	0.01060	<10	<0.00002	0.0000172	<0.000005	<0.002	<0.0005	0.000017	0.000470	0.00023	0.001	<0.0001
24-Jun-19	9	500	480												
1-Jul-19	10	500	465												
8-Jul-19	11	500	470												
15-Jul-19	12	500	485	0.00924	<10	<0.00002	0.0000114	0.0000064	<0.002	0.00089	0.000022	0.000875	0.00042	0.0014	<0.0001
22-Jul-19	13	500	465												
29-Jul-19	14	500	485												
5-Aug-19	15	500	470												
12-Aug-19	16	500	465	0.0088	<10	<0.00002	0.0000101	<0.000005	<0.002	<0.0005	0.000023	0.000685	0.00047	0.0011	<0.0001
19-Aug-19	17	500	470												
26-Aug-19	18	500	480												
2-Sep-19	19	500	490												
9-Sep-19	20	500	465	0.00781	<10	0.000036	0.0000092	<0.000005	<0.002	0.00144	0.000011	0.000422	0.00039	0.0012	<0.0001
16-Sep-19	21	500	495												
23-Sep-19	22	500	480												
30-Sep-19	23	500	460												
7-Oct-19	24	500	480	0.00886	<10	<0.00002	0.0000063	<0.000005	<0.002	<0.0005	<0.00001	0.000608	<0.0002	0.0014	<0.0001
14-Oct-19	25	500	460												
21-Oct-19	26	500	490												
28-Oct-19	27	500	475												
4-Nov-19	28	500	480	0.00956	<10	<0.00002	0.0000083	<0.000005	<0.002	0.00095	<0.00001	0.000352	0.00030	0.0031	<0.0001
11-Nov-19	29	500	460												
18-Nov-19	30	500	475												
25-Nov-19	31	500	460												
2-Dec-19	32	500	490	0.01280	<10	<0.00002	0.0000098	<0.000005	<0.002	<0.0005	<0.00001	0.000603	<0.0002	0.0016	<0.0001
9-Dec-19	33	500	460												
16-Dec-19	34	500	470												
23-Dec-19	35	500	455												
30-Dec-19	36	500	485	0.01410	<10	<0.00002	0.0000089	<0.000005	<0.002	<0.0005	<0.00001	0.000562	<0.0002	0.0019	0.00011
6-Jan-20	37	500	490												
13-Jan-20	38	500	465												
20-Jan-20	39	500	480												

2-Dec-19: Sample drained longer than usual.

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-07; Sample ID: CM18-05-GC2-23 DUP

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003	0.0002
22-Apr-19	0	750	560	8.11	258	59.5	49.6	0.56	3.0	0.06	0.008			0.011	9.730	107	0.0291	0.00816
29-Apr-19	1	500	480	8.08	238													
6-May-19	2	500	465	8.05	238	36.0	81.2											
13-May-19	3	500	490	8.06	224													
20-May-19	4	500	475	8.09	123	17.5	43.2	0.20	<0.5	0.02	0.066			0.002	2.540	52.1	0.138	0.00372
27-May-19	5	500	470	8.18	93													
3-Jun-19	6	500	495	7.95	127	17.0	43.3											
10-Jun-19	7	500	475	7.77	120													
17-Jun-19	8	500	470	7.96	231	24.8	57.6	0.25	<0.5		0.035			<0.003	0.389	101	0.0656	0.00464
24-Jun-19	9	500	455	7.90	127													
1-Jul-19	10	500	450	7.98	327	31.3	81.5											
8-Jul-19	11	500	450	7.85	206													
15-Jul-19	12	500	495	7.87	102	8.2	32.1	0.10	<0.5	2.36	0.063			0.008	1.950	45.0	0.100	0.00216
22-Jul-19	13	500	485	7.80	80													
29-Jul-19	14	500	475	7.97	159	16.1	45.9											
5-Aug-19	15	500	465	7.95	158													
12-Aug-19	16	500	455	8.12	206	28.0	76.4	0.32	1.0	2.41	0.020			<0.003	0.386	102	0.1220	0.00509
19-Aug-19	17	500	495	8.17	183													
26-Aug-19	18	500	450	8.12	194	25.5	78.0											
2-Sep-19	19	500	460	8.16	198													
9-Sep-19	20	500	490	8.01	90	8.5	37.1	0.12	<0.5	0.26	<0.005	0.015		<0.003	1.890	41.4	0.043	0.00182
16-Sep-19	21	500	480	7.89	102													
23-Sep-19	22	500	465	8.18	89	11.7	27.6											
30-Sep-19	23	500	460	8.05	112													
7-Oct-19	24	500	470	8.15	198	24.1	79.9	0.26	<0.5	0.34	<0.005	0.012		0.003	1.350	105	0.0695	0.00370
14-Oct-19	25	500	470	7.82	81													
21-Oct-19	26	500	480	7.77	110	16.0	37.3											
28-Oct-19	27	500	460	7.98	169													
4-Nov-19	28	500	480	7.91	172	21.0	66.4	0.16	<0.5	0.16	<0.005	<0.005		<0.003	0.607	87.2	0.0260	0.00229
11-Nov-19	29	500	460	7.92	224													
18-Nov-19	30	500	470	8.04	190	19.9	77.9											
25-Nov-19	31	500	490	7.95	180													
2-Dec-19	32	500	460	8.19	218	21.7	86.0	0.19	<0.5	0.10	0.006	0.010		<0.03	0.738	111	0.0555	0.00271
9-Dec-19	33	500	480	7.89	175													
16-Dec-19	34	500	455	8.05	202	18.2	83.8											
23-Dec-19	35	500	490	8.00	189													
30-Dec-19	36	500	475	7.90	138	12.4	52.0	<0.05	<0.5	0.06	<0.005	0.012		<0.003	1.370	63.5	0.0130	0.00116
6-Jan-20	37	500	480	7.69	129													
13-Jan-20	38	500	455	8.06	174	14.5	71.8					0.012	0.011					
20-Jan-20	39	500	490	7.90	172													

June 17, 2019 HC-7 Sample drained slower than usual

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-07; Sample ID: CM18-05-GC2-23 I

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
22-Apr-19	0	750	560	0.00140	0.177	<0.00001	<0.000005	<0.05	0.000355	0.0000100	27.6	<0.0001	0.00438	<0.0003	<0.00005	<0.005	<0.00005
29-Apr-19	1	500	480														
6-May-19	2	500	465														
13-May-19	3	500	490														
20-May-19	4	500	475	0.000714	0.0689	<0.00001	<0.000005	<0.05	0.000201	0.0000290	13.0	0.00011	0.00192	0.00033	<0.00005	0.0973	0.000185
27-May-19	5	500	470														
3-Jun-19	6	500	495														
10-Jun-19	7	500	475														
17-Jun-19	8	500	470	0.000473	0.109	<0.00001	<0.000005	<0.05	0.000151	0.0000532	24.5	0.00014	0.00283	<0.0003	<0.00005	0.0361	0.000104
24-Jun-19	9	500	455														
1-Jul-19	10	500	450														
8-Jul-19	11	500	450														
15-Jul-19	12	500	495	0.000276	0.0484	<0.00001	<0.000005	<0.05	0.000054	0.0000406	10.9	0.00011	0.00172	<0.0003	<0.00005	0.0221	0.000057
22-Jul-19	13	500	485														
29-Jul-19	14	500	475														
5-Aug-19	15	500	465														
12-Aug-19	16	500	455	0.00054	0.078	0.000013	<0.000005	<0.05	0.000092	0.0000769	24.8	0.00025	0.00245	0.00058	0.000052	0.1510	0.000584
19-Aug-19	17	500	495														
26-Aug-19	18	500	450														
2-Sep-19	19	500	460														
9-Sep-19	20	500	490	0.000251	0.0518	<0.00001	<0.000005	<0.05	<0.00005	0.0000426	10.3	<0.0001	0.00067	<0.0003	<0.00005	0.0205	0.000064
16-Sep-19	21	500	480														
23-Sep-19	22	500	465														
30-Sep-19	23	500	460														
7-Oct-19	24	500	470	0.000304	0.0871	<0.00001	<0.000005	<0.05	0.000050	0.0000708	25.2	0.00012	0.00125	0.00031	<0.00005	0.0292	0.000089
14-Oct-19	25	500	470														
21-Oct-19	26	500	480														
28-Oct-19	27	500	460														
4-Nov-19	28	500	480	0.000224	0.0721	<0.00001	<0.000005	<0.05	<0.00005	0.0000751	20.9	<0.0001	0.00114	<0.0003	<0.00005	<0.005	<0.00005
11-Nov-19	29	500	460														
18-Nov-19	30	500	470														
25-Nov-19	31	500	490														
2-Dec-19	32	500	460	0.000242	0.103	<0.00001	<0.000005	<0.05	<0.00005	0.0000869	25.5	<0.0001	0.00115	0.0009	<0.00005	0.0051	<0.00005
9-Dec-19	33	500	480														
16-Dec-19	34	500	455														
23-Dec-19	35	500	490														
30-Dec-19	36	500	475	0.000127	0.0690	<0.00001	<0.000005	<0.05	<0.00005	0.0000581	14.8	<0.0001	0.000396	<0.0003	<0.00005	<0.005	<0.00005
6-Jan-20	37	500	480														
13-Jan-20	38	500	455														
20-Jan-20	39	500	490														

June 17, 2019 HC-7 Sample drained slower than usual

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-07; Sample ID: CM18-05-GC2-23 I

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
22-Apr-19	0	750	560	0.0180	9.18	0.00798	<0.00001	0.0179	0.120	0.0164	6.08	0.0110	0.0642	1.77	<0.000005	1.76	0.0197
29-Apr-19	1	500	480														
6-May-19	2	500	465														
13-May-19	3	500	490														
20-May-19	4	500	475	0.00648	4.78	0.00912	<0.00001	0.0126	0.0425	0.00385	2.56	0.00517	0.0204	1.07	<0.000005	0.315	0.0103
27-May-19	5	500	470														
3-Jun-19	6	500	495														
10-Jun-19	7	500	475														
17-Jun-19	8	500	470	0.00956	9.62	0.0131	<0.00001	0.0171	0.0399	0.00598	3.59	0.00657	0.0243	1.32	<0.000005	0.441	0.0158
24-Jun-19	9	500	455														
1-Jul-19	10	500	450														
8-Jul-19	11	500	450														
15-Jul-19	12	500	495	0.00407	4.31	0.00723	<0.00001	<0.002	0.0100	0.00324	1.57	0.00201	0.00700	0.77	<0.000005	0.099	0.00892
22-Jul-19	13	500	485														
29-Jul-19	14	500	475														
5-Aug-19	15	500	465														
12-Aug-19	16	500	455	0.0099	9.70	0.00516	<0.00001	0.0154	0.026	0.0056	2.80	0.0032	0.0152	1.55	0.0000055	0.22	0.0195
19-Aug-19	17	500	495														
26-Aug-19	18	500	450														
2-Sep-19	19	500	460														
9-Sep-19	20	500	490	0.00298	3.82	0.00092	<0.00001	<0.002	0.0056	0.00227	1.32	0.00134	0.0058	0.62	<0.000005	0.073	0.0084
16-Sep-19	21	500	480														
23-Sep-19	22	500	465														
30-Sep-19	23	500	460														
7-Oct-19	24	500	470	0.00724	10.3	0.00079	<0.00001	0.0138	0.0127	0.00426	2.55	0.00232	0.0117	1.21	<0.000005	0.156	0.0196
14-Oct-19	25	500	470														
21-Oct-19	26	500	480														
28-Oct-19	27	500	460														
4-Nov-19	28	500	480	0.00506	8.49	0.00053	<0.00001	0.0033	0.00714	0.00424	2.11	0.00172	0.00968	0.91	<0.000005	0.097	0.0165
11-Nov-19	29	500	460														
18-Nov-19	30	500	470														
25-Nov-19	31	500	490														
2-Dec-19	32	500	460	0.00658	11.4	0.00099	<0.00001	<0.002	0.00700	0.00475	2.57	0.00207	0.0109	1.18	<0.000005	0.112	0.0213
9-Dec-19	33	500	480														
16-Dec-19	34	500	455														
23-Dec-19	35	500	490														
30-Dec-19	36	500	475	0.00308	6.44	0.00042	<0.00001	<0.002	0.00308	0.00242	1.43	0.00122	0.00684	0.58	<0.000005	0.060	0.0125
6-Jan-20	37	500	480														
13-Jan-20	38	500	455														
20-Jan-20	39	500	490														

June 17, 2019 HC-7 Sample drained slower than usual

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-07; Sample ID: CM18-05-GC2-23 I

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	560	22	<0.00002	0.0000700	<0.000005	<0.002	<0.0005	0.000165	0.00109	0.00185	<0.001	<0.0001
29-Apr-19	1	500	480											
6-May-19	2	500	465											
13-May-19	3	500	490											
20-May-19	4	500	475	<10	<0.00002	0.0000370	0.0000270	<0.002	0.00168	0.000089	0.000975	0.00099	0.0013	0.00011
27-May-19	5	500	470											
3-Jun-19	6	500	495											
10-Jun-19	7	500	475											
17-Jun-19	8	500	470	<10	<0.00002	0.0000433	0.0000131	<0.002	0.00234	0.000065	0.00220	0.00040	0.0025	<0.0001
24-Jun-19	9	500	455											
1-Jul-19	10	500	450											
8-Jul-19	11	500	450											
15-Jul-19	12	500	495	<10	<0.00002	0.0000135	0.0000055	<0.002	0.00165	0.000015	0.000372	0.00044	0.0015	<0.0001
22-Jul-19	13	500	485											
29-Jul-19	14	500	475											
5-Aug-19	15	500	465											
12-Aug-19	16	500	455	<10	0.000026	0.0000236	0.0000431	<0.002	0.00222	0.000029	0.00201	0.00086	0.0030	0.00026
19-Aug-19	17	500	495											
26-Aug-19	18	500	450											
2-Sep-19	19	500	460											
9-Sep-19	20	500	490	<10	<0.00002	0.0000091	0.0000080	<0.002	0.00087	<0.00001	0.000362	0.00041	0.0016	<0.0001
16-Sep-19	21	500	480											
23-Sep-19	22	500	465											
30-Sep-19	23	500	460											
7-Oct-19	24	500	470	<10	<0.00002	0.0000132	<0.000005	<0.002	0.00102	0.000013	0.00236	0.00038	0.0026	<0.0001
14-Oct-19	25	500	470											
21-Oct-19	26	500	480											
28-Oct-19	27	500	460											
4-Nov-19	28	500	480	<10	<0.00002	0.0000116	<0.000005	<0.002	<0.0005	<0.00001	0.00196	0.00025	0.0031	<0.0001
11-Nov-19	29	500	460											
18-Nov-19	30	500	470											
25-Nov-19	31	500	490											
2-Dec-19	32	500	460	<10	<0.00002	0.0000163	0.0000061	<0.002	0.00096	<0.00001	0.00176	0.00035	0.0036	<0.0001
9-Dec-19	33	500	480											
16-Dec-19	34	500	455											
23-Dec-19	35	500	490											
30-Dec-19	36	500	475	<10	<0.00002	0.0000089	<0.000005	<0.002	<0.0005	<0.00001	0.000722	<0.0002	0.0022	<0.0001
6-Jan-20	37	500	480											
13-Jan-20	38	500	455											
20-Jan-20	39	500	490											

June 17, 2019 HC-7 Sample drained slower than usual

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	695	7.05	10	2.4	1.0	<0.05	<0.5	<0.02	<0.005			0.002	0.191	2.6	<0.003
29-Apr-19	1	500	455	7.22	16												
6-May-19	2	500	475	7.21	16	3.0	3.7										
13-May-19	3	500	490	7.10	16												
20-May-19	4	500	465	7.12	16	3.3	3.2	<0.05	<0.5	<0.02	<0.005			0.003	1.018	4.9	0.0038
27-May-19	5	500	460	7.10	15												
3-Jun-19	6	500	480	7.23	18	2.9	4.3										
10-Jun-19	7	500	465	7.19	17												
17-Jun-19	8	500	460	7.02	19	3.9	2.7	<0.05	<0.5	<0.02	<0.005			<0.003	0.371	5.3	<0.003
24-Jun-19	9	500	465	7.08	18												
1-Jul-19	10	500	460	6.85	22	4.7	3.4										
8-Jul-19	11	500	470	6.91	20												
15-Jul-19	12	500	460	6.93	21	5.3	1.7	<0.05	<0.5	<0.02	<0.005			0.005	1.210	6.6	<0.003
22-Jul-19	13	500	470	6.87	24												
29-Jul-19	14	500	470	6.97	25	5.9	2.2										
5-Aug-19	15	500	460	6.73	29												
12-Aug-19	16	500	465	6.59	27	6.1	1.3	<0.05	1.8	<0.02	<0.005			<0.003	<0.5	8.5	<0.003
19-Aug-19	17	500	470	6.64	29												
26-Aug-19	18	500	475	6.71	30	7.3	1.0										
2-Sep-19	19	500	475	6.55	32												
9-Sep-19	20	500	470	6.44	33	7.0	1.1	<0.05	2.8	<0.02	<0.005	0.223		<0.003	1.520	10.9	<0.003
16-Sep-19	21	500	475	6.53	31												
23-Sep-19	22	500	455	6.45	34	9.0	<0.5										
30-Sep-19	23	500	470	6.38	30												
7-Oct-19	24	500	470	6.33	33	8.2	<0.5	<0.05	2.4	<0.02	<0.005	0.086		<0.003	1.819	11.1	<0.003
14-Oct-19	25	500	460	6.30	35												
21-Oct-19	26	500	475	6.29	22	8.4	<0.5										
28-Oct-19	27	500	465	6.38	30												
4-Nov-19	28	500	470	6.32	35	11.1	<0.5	<0.05	1.8	<0.02	<0.005	0.281		<0.003	1.278	11.5	<0.003
11-Nov-19	29	500	485	6.10	37												
18-Nov-19	30	500	470	5.98	32	8.1	<0.5										
25-Nov-19	31	500	475	6.43	35												
2-Dec-19	32	500	480	6.25	37	9.6	<0.5	<0.05	1.4	<0.02	<0.005	0.249		<0.003	1.079	12.4	<0.003
9-Dec-19	33	500	475	6.34	38												
16-Dec-19	34	500	470	6.22	37	12.0	<0.5										
23-Dec-19	35	500	480	6.15	40												
30-Dec-19	36	500	475	6.26	40	13.1	<0.5	<0.05	0.9	<0.02	<0.005	0.268		<0.003	1.019	13.6	<0.003
6-Jan-20	37	500	485	6.65	35												
13-Jan-20	38	500	480	6.23	32	9.6	<0.5					0.233	0.207				
20-Jan-20	39	500	475	6.34	34												
27-Jan-20	40	500	480	6.08	35	10.8	<0.5	<0.05	0.8	<0.02	<0.005	0.276		<0.003	<0.5	12.1	<0.003
3-Feb-20	41	500	465	6.23	39												
10-Feb-20	42	500	450	6.08	47	13.6	<0.5										
17-Feb-20	43	500	478	5.99	38												
24-Feb-20	44	500	475	5.97	41	13.2	<0.5	<0.05	1.2	<0.02	0.006	0.327		<0.003	<0.5	14.0	<0.003
2-Mar-20	45	500	475	6.09	41												
9-Mar-20	46	500	475	6.09	42	14.5	<0.5										
16-Mar-20	47	500	485	5.92	40												
23-Mar-20	48	500	475	5.98	40	13.0	<0.5	<0.05	0.9	0.08	<0.005	0.270		<0.003	<0.5	13.1	0.0036
30-Mar-20	49	500	480	5.68	40												
6-Apr-20	50	500	480	5.85	39	12.3	<0.5										
13-Apr-20	51	500	480	5.66	37												
20-Apr-20	52	500	475	5.76	38	12.1	<0.5	<0.05	0.6	0.11	<0.005	0.279		<0.003	1.2	11.8	0.0033
27-Apr-20	53	500	470	5.74	35												
4-May-20	54	500	480	5.69	36	12.7	<0.5										
11-May-20	55	500	470	5.48	38												
18-May-20	56	500	475	5.62	40	12.7	<0.5	<0.05	0.6	0.10	<0.005	0.219		<0.003	1.1	13.1	<0.003
25-May-20	57	500	470	5.45	40												
1-Jun-20	58	500	475	5.60	36	12.4	<0.5										
8-Jun-20	59	500	470	5.48	38												
15-Jun-20	60	500	470	5.61	39	12.5	<0.5	<0.05	0.6	0.09	<0.005	0.252		<0.003	<0.5	12.3	<0.003
22-Jun-20	61	500	480	5.38	38												
29-Jun-20	62	500	475	5.21	38	11.5	<0.5										
6-Jul-20	63	500	470	5.43	40												



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
13-Jul-20	64	500	485	5.73	43	13.2	<0.5	<0.05	1.0	0.10	<0.005	0.238		0.004	0.5	13.4	<0.0030
20-Jul-20	65	500	475	5.15	42												

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	695	0.000088	0.000094	0.0645	0.000018	<0.000005	<0.05	<0.00005	0.0000110	0.688	<0.0001	0.00586	<0.0003	<0.00005	0.0351
29-Apr-19	1	500	455														
6-May-19	2	500	475														
13-May-19	3	500	490														
20-May-19	4	500	465	0.000076	0.000116	0.0790	<0.00001	<0.000005	<0.05	<0.00005	0.0000090	1.270	<0.0001	0.00168	<0.0003	<0.00005	<0.005
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	465														
17-Jun-19	8	500	460	0.000044	0.000066	0.0547	<0.00001	<0.000005	<0.05	<0.00005	0.0000097	1.290	<0.0001	0.00223	<0.0003	<0.00005	<0.005
24-Jun-19	9	500	465														
1-Jul-19	10	500	460														
8-Jul-19	11	500	470														
15-Jul-19	12	500	460	0.000045	0.000037	0.0448	<0.00001	<0.000005	<0.05	<0.00005	0.0000163	1.54	<0.0001	0.00298	<0.0003	<0.00005	<0.005
22-Jul-19	13	500	470														
29-Jul-19	14	500	470														
5-Aug-19	15	500	460														
12-Aug-19	16	500	465	<0.00002	0.000025	0.0364	0.000022	<0.000005	<0.05	<0.00005	0.0000300	1.980	<0.0001	0.00437	<0.0003	<0.00005	<0.005
19-Aug-19	17	500	470														
26-Aug-19	18	500	475														
2-Sep-19	19	500	475														
9-Sep-19	20	500	470	0.000029	0.000047	0.0394	0.000039	<0.000005	<0.05	<0.00005	0.0000726	2.49	<0.0001	0.00777	0.00036	<0.00005	<0.005
16-Sep-19	21	500	475														
23-Sep-19	22	500	455														
30-Sep-19	23	500	470														
7-Oct-19	24	500	470	<0.00002	<0.00002	0.0399	0.000046	<0.000005	<0.05	<0.00005	0.0000879	2.41	<0.0001	0.00892	0.00038	<0.00005	<0.005
14-Oct-19	25	500	460														
21-Oct-19	26	500	475														
28-Oct-19	27	500	465														
4-Nov-19	28	500	470	<0.00002	0.000026	0.0361	0.000040	<0.000005	<0.05	<0.00005	0.000104	2.58	<0.0001	0.00940	0.00045	<0.00005	<0.005
11-Nov-19	29	500	485														
18-Nov-19	30	500	470														
25-Nov-19	31	500	475														
2-Dec-19	32	500	480	<0.00002	<0.00002	0.0379	0.000064	<0.000005	<0.05	0.000051	0.000133	2.66	<0.0001	0.0112	0.00135	<0.00005	<0.005
9-Dec-19	33	500	475														
16-Dec-19	34	500	470														
23-Dec-19	35	500	480														
30-Dec-19	36	500	475	<0.00002	<0.00002	0.0395	0.000066	<0.000005	<0.05	0.000050	0.000192	2.86	<0.0001	0.0127	0.00064	<0.00005	<0.005
6-Jan-20	37	500	485														
13-Jan-20	38	500	480														
20-Jan-20	39	500	475														
27-Jan-20	40	500	480	<0.00002	<0.00002	0.0339	0.000064	<0.000005	<0.05	<0.00005	0.000162	2.52	<0.0001	0.0112	0.00079	<0.00005	<0.005
3-Feb-20	41	500	465														
10-Feb-20	42	500	450														
17-Feb-20	43	500	478														
24-Feb-20	44	500	475	<0.00002	<0.00002	0.0360	0.000083	<0.000005	<0.05	0.000052	0.000243	2.92	<0.0001	0.0149	0.00109	<0.00005	<0.005
2-Mar-20	45	500	475														
9-Mar-20	46	500	475														
16-Mar-20	47	500	485														
23-Mar-20	48	500	475	<0.00002	0.000028	0.0409	0.000114	<0.000005	<0.05	0.000062	0.000283	2.75	<0.0001	0.0161	0.00132	0.000051	0.019
30-Mar-20	49	500	480														
6-Apr-20	50	500	480														
13-Apr-20	51	500	480														
20-Apr-20	52	500	475	0.000050	0.000029	0.0370	0.000120	<0.000005	<0.05	<0.00005	0.000294	2.41	<0.0001	0.0167	0.00137	<0.00005	<0.005
27-Apr-20	53	500	470														
4-May-20	54	500	480														
11-May-20	55	500	470														
18-May-20	56	500	475	<0.00002	0.000074	0.0350	0.000157	<0.000005	<0.05	<0.00005	0.000372	2.72	<0.0001	0.0210	0.00207	<0.00005	<0.005
25-May-20	57	500	470														
1-Jun-20	58	500	475														
8-Jun-20	59	500	470														
15-Jun-20	60	500	470	<0.00002	<0.00002	0.0324	0.000188	<0.000005	<0.05	<0.00005	0.000408	2.60	<0.0001	0.0202	0.00199	<0.00005	<0.005
22-Jun-20	61	500	480														
29-Jun-20	62	500	475														
6-Jul-20	63	500	470														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
13-Jul-20	64	500	485	<0.000020	0.000024	0.0337	0.000236	<0.0000050	<0.050	0.000052	0.000569	2.78	<0.00010	0.0257	0.00343	<0.000050	<0.0050
20-Jul-20	65	500	475														

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	695	0.000174	0.00125	0.214	0.00154	<0.00001	<0.002	0.00106	0.00337	0.340	0.000743	0.000570	<0.1	<0.000005	0.195
29-Apr-19	1	500	455														
6-May-19	2	500	475														
13-May-19	3	500	490														
20-May-19	4	500	465	<0.00005	0.00321	0.408	0.00202	<0.00001	<0.002	0.00124	0.00072	0.452	0.000844	0.001500	0.18	<0.000005	0.218
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	465														
17-Jun-19	8	500	460	<0.00005	0.00320	0.507	0.00311	<0.00001	<0.002	0.00043	0.00096	0.421	0.000850	0.001250	0.15	<0.000005	0.173
24-Jun-19	9	500	465														
1-Jul-19	10	500	460														
8-Jul-19	11	500	470														
15-Jul-19	12	500	460	<0.00005	0.00404	0.678	0.00465	<0.00001	<0.002	0.000152	0.00131	0.456	0.000945	0.00127	0.15	<0.000005	0.158
22-Jul-19	13	500	470														
29-Jul-19	14	500	470														
5-Aug-19	15	500	460														
12-Aug-19	16	500	465	<0.00005	0.00470	0.866	0.00831	<0.00001	<0.002	0.00005	0.00208	0.460	0.001020	0.001230	0.15	<0.000005	0.143
19-Aug-19	17	500	470														
26-Aug-19	18	500	475														
2-Sep-19	19	500	475														
9-Sep-19	20	500	470	0.000059	0.00508	1.130	0.02130	<0.00001	<0.002	<0.00005	0.00373	0.504	0.001070	0.00122	0.13	<0.000005	0.134
16-Sep-19	21	500	475														
23-Sep-19	22	500	455														
30-Sep-19	23	500	470														
7-Oct-19	24	500	470	<0.00005	0.00526	1.24	0.0300	<0.00001	<0.002	<0.00005	0.00433	0.465	0.00102	0.00153	0.12	<0.000005	0.123
14-Oct-19	25	500	460														
21-Oct-19	26	500	475														
28-Oct-19	27	500	465														
4-Nov-19	28	500	470	<0.00005	0.00508	1.23	0.0339	<0.00001	0.0043	<0.00005	0.00469	0.461	0.00105	0.00148	0.12	<0.000005	0.119
11-Nov-19	29	500	485														
18-Nov-19	30	500	470														
25-Nov-19	31	500	475														
2-Dec-19	32	500	480	<0.00005	0.00633	1.39	0.0434	<0.00001	<0.002	<0.00005	0.00574	0.504	0.00115	0.00165	0.13	<0.000005	0.126
9-Dec-19	33	500	475														
16-Dec-19	34	500	470														
23-Dec-19	35	500	480														
30-Dec-19	36	500	475	<0.00005	0.00659	1.55	0.0505	<0.00001	<0.002	<0.00005	0.00674	0.528	0.00113	0.00193	0.14	<0.000005	0.135
6-Jan-20	37	500	485														
13-Jan-20	38	500	480														
20-Jan-20	39	500	475														
27-Jan-20	40	500	480	0.000083	0.00645	1.41	0.0455	<0.00001	<0.002	<0.00005	0.00603	0.483	0.00106	0.00148	0.14	<0.000005	0.123
3-Feb-20	41	500	465														
10-Feb-20	42	500	450														
17-Feb-20	43	500	478														
24-Feb-20	44	500	475	<0.00005	0.00726	1.63	0.0582	<0.00001	0.0052	<0.00005	0.00776	0.574	0.00126	0.00183	0.18	<0.000005	0.133
2-Mar-20	45	500	475														
9-Mar-20	46	500	475														
16-Mar-20	47	500	485														
23-Mar-20	48	500	475	0.00016	0.00681	1.52	0.0632	0.000012	0.0056	<0.00005	0.00820	0.522	0.00113	0.00161	0.18	<0.000005	0.114
30-Mar-20	49	500	480														
6-Apr-20	50	500	480														
13-Apr-20	51	500	480														
20-Apr-20	52	500	475	<0.00005	0.00635	1.40	0.0642	<0.00001	0.0038	<0.00005	0.00834	0.492	0.00106	0.00136	0.17	<0.000005	0.120
27-Apr-20	53	500	470														
4-May-20	54	500	480														
11-May-20	55	500	470														
18-May-20	56	500	475	0.00011	0.00632	1.52	0.0772	<0.00001	<0.002	<0.00005	0.0100	0.481	0.00106	0.00158	0.18	<0.000005	0.094
25-May-20	57	500	470														
1-Jun-20	58	500	475														
8-Jun-20	59	500	470														
15-Jun-20	60	500	470	0.000158	0.00713	1.41	0.0756	<0.00001	0.0026	<0.00005	0.00924	0.505	0.00119	0.00136	0.21	<0.000005	0.091
22-Jun-20	61	500	480														
29-Jun-20	62	500	475														
6-Jul-20	63	500	470														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
13-Jul-20	64	500	485	0.000215	0.00770	1.56	0.0898	<0.000010	0.0043	<0.000050	0.0121	0.525	0.00115	0.00145	0.24	<0.0000050	0.101
20-Jul-20	65	500	475														

Methods:

Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.000011	0.000030	0.0002	0.001	0.0001
22-Apr-19	0	750	695	0.00296	<10	<0.00002	0.0000110	<0.000005	<0.002	<0.0005	0.000011	0.0000030	<0.0002	0.0014	<0.0001
29-Apr-19	1	500	455												
6-May-19	2	500	475												
13-May-19	3	500	490												
20-May-19	4	500	465	0.00425	<10	<0.00002	0.0000100	<0.000005	<0.002	<0.0005	0.000014	0.0000030	<0.0002	<0.001	<0.0001
27-May-19	5	500	460												
3-Jun-19	6	500	480												
10-Jun-19	7	500	465												
17-Jun-19	8	500	460	0.00381	<10	<0.00002	0.0000123	<0.000005	<0.002	0.00057	<0.00001	<0.000002	<0.0002	0.0013	<0.0001
24-Jun-19	9	500	465												
1-Jul-19	10	500	460												
8-Jul-19	11	500	470												
15-Jul-19	12	500	460	0.00431	<10	<0.00002	0.0000126	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0021	<0.0001
22-Jul-19	13	500	470												
29-Jul-19	14	500	470												
5-Aug-19	15	500	460												
12-Aug-19	16	500	465	0.00467	<10	<0.00002	0.0000188	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0041	<0.0001
19-Aug-19	17	500	470												
26-Aug-19	18	500	475												
2-Sep-19	19	500	475												
9-Sep-19	20	500	470	0.00511	<10	<0.00002	0.0000241	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0079	<0.0001
16-Sep-19	21	500	475												
23-Sep-19	22	500	455												
30-Sep-19	23	500	470												
7-Oct-19	24	500	470	0.00454	<10	<0.00002	0.0000228	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0093	<0.0001
14-Oct-19	25	500	460												
21-Oct-19	26	500	475												
28-Oct-19	27	500	465												
4-Nov-19	28	500	470	0.00454	<10	<0.00002	0.0000268	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0118	<0.0001
11-Nov-19	29	500	485												
18-Nov-19	30	500	470												
25-Nov-19	31	500	475												
2-Dec-19	32	500	480	0.00472	<10	<0.00002	0.0000343	<0.000005	<0.002	<0.0005	<0.00001	0.0000020	<0.0002	0.0130	<0.0001
9-Dec-19	33	500	475												
16-Dec-19	34	500	470												
23-Dec-19	35	500	480												
30-Dec-19	36	500	475	0.00483	<10	<0.00002	0.0000352	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0169	<0.0001
6-Jan-20	37	500	485												
13-Jan-20	38	500	480												
20-Jan-20	39	500	475												
27-Jan-20	40	500	480	0.00402	<10	<0.00002	0.0000332	<0.000005	<0.002	<0.0005	<0.00001	0.0000021	<0.0002	0.0155	<0.0001
3-Feb-20	41	500	465												
10-Feb-20	42	500	450												
17-Feb-20	43	500	478												
24-Feb-20	44	500	475	0.00445	<10	<0.00002	0.0000415	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0208	<0.0001
2-Mar-20	45	500	475												
9-Mar-20	46	500	475												
16-Mar-20	47	500	485												
23-Mar-20	48	500	475	0.00426	<10	<0.00002	0.0000421	0.000009	<0.002	<0.0005	<0.00001	0.000004	<0.0002	0.0227	<0.0001
30-Mar-20	49	500	480												
6-Apr-20	50	500	480												
13-Apr-20	51	500	480												
20-Apr-20	52	500	475	0.00424	<10	<0.00002	0.0000435	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0250	<0.0001
27-Apr-20	53	500	470												
4-May-20	54	500	480												
11-May-20	55	500	470												
18-May-20	56	500	475	0.00377	<10	<0.00002	0.0000446	<0.000005	<0.002	<0.0005	<0.00001	0.000002	<0.0002	0.0341	<0.0001
25-May-20	57	500	470												
1-Jun-20	58	500	475												
8-Jun-20	59	500	470												
15-Jun-20	60	500	470	0.00390	<10	<0.00002	0.0000478	<0.000005	<0.002	<0.0005	<0.00001	0.0000040	<0.0002	0.0368	<0.0001
22-Jun-20	61	500	480												
29-Jun-20	62	500	475												
6-Jul-20	63	500	470												



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-08; Sample ID: CM18-05-GC2-43

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
13-Jul-20	64	500	485	0.00399	<10	<0.000020	0.0000463	<0.0000050	<0.0020	<0.00050	<0.000010	0.0000039	<0.00020	0.0535	<0.00010
20-Jul-20	65	500	475												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-09; Sample ID: 11-12-35

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	555	3.91	1140	619	<0.5	0.59	<0.5	<0.02	<0.005			<0.003	1.620	537	2.38
29-Apr-19	1	500	495	4.06	903												
6-May-19	2	500	475	4.15	502	178	<0.5										
13-May-19	3	500	495	4.28	332												
20-May-19	4	500	470	4.28	309	140	<0.5	0.12	<0.5	<0.02	<0.005			0.003	1.024	106	0.24
27-May-19	5	500	500	4.28	288												
3-Jun-19	6	500	485	4.25	265	107	<0.5										
10-Jun-19	7	500	480	4.28	241												
17-Jun-19	8	500	465	4.27	215	85	<0.5	0.08	<0.5	<0.02	<0.005			<0.003	0.431	73	0.12
24-Jun-19	9	500	465	4.35	208												
1-Jul-19	10	500	450	4.31	197	75	<0.5										
8-Jul-19	11	500	450	4.49	228												
15-Jul-19	12	500	490	4.39	187	66	<0.5	0.07	<0.5	<0.02	<0.005			<0.003	1.210	60	0.0931
22-Jul-19	13	500	485	4.47	153												
29-Jul-19	14	500	480	4.50	170	69	<0.5										
5-Aug-19	15	500	475	4.49	146												
12-Aug-19	16	500	460	4.41	172	64	<0.5	0.07	0.6	<0.02	<0.005			<0.003	0.482	56	0.08
19-Aug-19	17	500	470	4.49	147												
26-Aug-19	18	500	490	4.57	122	44	<0.5										
2-Sep-19	19	500	480	4.42	132												
9-Sep-19	20	500	440	4.39	144	54	<0.5	0.06	<0.5	<0.02	<0.005	0.390		<0.003	1.282	47	0.0681
16-Sep-19	21	500	490	4.46	124												
23-Sep-19	22	500	475	4.46	127	45	<0.5										
30-Sep-19	23	500	470	4.47	125												
7-Oct-19	24	500	475	4.50	109	45	<0.5	0.05	<0.5	<0.02	<0.005	0.445		<0.003	1.708	34	0.0487
14-Oct-19	25	500	465	4.52	98												
21-Oct-19	26	500	460	4.42	129	45	<0.5										
28-Oct-19	27	500	470	4.47	118												
4-Nov-19	28	500	495	4.55	103	30	<0.5	0.05	<0.5	<0.02	<0.005	0.376		<0.003	0.948	29	0.0435
11-Nov-19	29	500	495	4.39	96												
18-Nov-19	30	500	475	4.42	97	34	<0.5										
25-Nov-19	31	500	480	4.45	96												
2-Dec-19	32	500	475	4.58	90	34	<0.5	<0.05	0.5	<0.02	<0.005	0.301		<0.03	0.539	26	0.0398
9-Dec-19	33	500	485	4.73	91												
16-Dec-19	34	500	460	4.42	81	26	<0.5										
23-Dec-19	35	500	490	4.53	81												
30-Dec-19	36	500	480	4.55	85	28	<0.5	34	0.7	<0.02	<0.005	0.279		<0.003	0.585	24	0.0394
6-Jan-20	37	500	490	4.77	80												
13-Jan-20	38	500	445	4.46	93	35.6	<0.5					0.369	0.367				
20-Jan-20	39	500	490	4.59	81												

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-09; Sample ID: 11-12-35

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	555	0.00060	0.00286	0.0454	0.0152	<0.00005	<0.5	0.00086	0.109	100	<0.001	1.25	1.39	<0.0005	1.52
29-Apr-19	1	500	495														
6-May-19	2	500	475														
13-May-19	3	500	495														
20-May-19	4	500	470	0.00008	0.00060	0.0198	0.0031	<0.000005	<0.05	0.00038	0.030	19	<0.0001	0.28	0.29	<0.00005	0.69
27-May-19	5	500	500														
3-Jun-19	6	500	485														
10-Jun-19	7	500	480														
17-Jun-19	8	500	465	<0.00002	0.00026	0.0160	0.0017	<0.000005	<0.05	0.00030	0.018	12	<0.0001	0.18	0.17	<0.00005	0.37
24-Jun-19	9	500	465														
1-Jul-19	10	500	450														
8-Jul-19	11	500	450														
15-Jul-19	12	500	490	0.000034	0.000172	0.0190	0.00145	<0.000005	<0.05	0.000290	0.0160	8.88	<0.0001	0.145	0.107	<0.00005	0.178
22-Jul-19	13	500	485														
29-Jul-19	14	500	480														
5-Aug-19	15	500	475														
12-Aug-19	16	500	460	0.00003	0.00019	0.0189	0.0013	<0.000005	<0.05	0.00025	0.015	8	<0.0001	0.14	0.09	<0.00005	0.05
19-Aug-19	17	500	470														
26-Aug-19	18	500	490														
2-Sep-19	19	500	480														
9-Sep-19	20	500	440	0.000038	0.000185	0.0232	0.00102	<0.000005	<0.05	0.000237	0.0122	7.05	<0.0001	0.109	0.069	<0.00005	0.017
16-Sep-19	21	500	490														
23-Sep-19	22	500	475														
30-Sep-19	23	500	470														
7-Oct-19	24	500	475	0.000025	0.000076	0.0248	0.000807	<0.000005	<0.05	0.000178	0.00903	5.05	<0.0001	0.0796	0.0499	<0.00005	0.0057
14-Oct-19	25	500	465														
21-Oct-19	26	500	460														
28-Oct-19	27	500	470														
4-Nov-19	28	500	495	<0.00002	0.000097	0.0292	0.000677	<0.000005	<0.05	0.000176	0.00766	4.38	<0.0001	0.0635	0.0424	<0.00005	0.0087
11-Nov-19	29	500	495														
18-Nov-19	30	500	475														
25-Nov-19	31	500	480														
2-Dec-19	32	500	475	0.000032	0.000083	0.0315	0.000651	<0.000005	<0.05	0.000154	0.00680	3.70	<0.0001	0.0543	0.0382	<0.00005	<0.005
9-Dec-19	33	500	485														
16-Dec-19	34	500	460														
23-Dec-19	35	500	490														
30-Dec-19	36	500	480	0.000022	0.000064	0.0311	0.000627	<0.000005	<0.05	0.000141	0.00656	3.42	<0.0001	0.0516	0.0362	<0.00005	<0.005
6-Jan-20	37	500	490														
13-Jan-20	38	500	445														
20-Jan-20	39	500	490														

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-09; Sample ID: 11-12-35

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	555	0.00728	0.162	69.8	2.37	<0.0001	<0.02	<0.0005	4.24	12.0	0.0320	0.183	4.7	<0.00005	3.05
29-Apr-19	1	500	495														
6-May-19	2	500	475														
13-May-19	3	500	495														
20-May-19	4	500	470	0.00211	0.034	14.3	0.46	<0.00001	<0.002	0.00005	0.95	4.9	0.0142	0.062	4.0	<0.000005	0.49
27-May-19	5	500	500														
3-Jun-19	6	500	485														
10-Jun-19	7	500	480														
17-Jun-19	8	500	465	0.00077	0.014	10.5	0.33	<0.00001	<0.002	<0.00005	0.62	4.1	0.0114	0.034	2.9	0.000020	0.20
24-Jun-19	9	500	465														
1-Jul-19	10	500	450														
8-Jul-19	11	500	450														
15-Jul-19	12	500	490	0.00067	0.0121	9.26	0.265	<0.00001	<0.002	0.000068	0.508	3.97	0.0113	0.0249	2.69	0.0000130	0.152
22-Jul-19	13	500	485														
29-Jul-19	14	500	480														
5-Aug-19	15	500	475														
12-Aug-19	16	500	460	0.00031	0.011	8.5	0.23	<0.00001	<0.002	<0.00005	0.46	3.5	0.0103	0.021	2.7	0.000020	0.12
19-Aug-19	17	500	470														
26-Aug-19	18	500	490														
2-Sep-19	19	500	480														
9-Sep-19	20	500	440	0.000631	0.0099	7.04	0.200	<0.00001	<0.002	<0.00005	0.381	3.16	0.0095	0.0158	2.60	0.0000129	0.107
16-Sep-19	21	500	490														
23-Sep-19	22	500	475														
30-Sep-19	23	500	470														
7-Oct-19	24	500	475	0.000588	0.00708	5.11	0.148	<0.00001	<0.002	<0.00005	0.278	2.49	0.00739	0.0115	2.06	<0.000005	0.078
14-Oct-19	25	500	465														
21-Oct-19	26	500	460														
28-Oct-19	27	500	470														
4-Nov-19	28	500	495	0.000499	0.00608	4.45	0.115	<0.00001	0.0030	<0.00005	0.226	2.37	0.00685	0.00923	1.96	0.0000135	0.077
11-Nov-19	29	500	495														
18-Nov-19	30	500	475														
25-Nov-19	31	500	480														
2-Dec-19	32	500	475	0.000492	0.00658	3.94	0.099	<0.00001	<0.002	<0.00005	0.198	2.26	0.00650	0.0073	2.09	0.0000071	0.065
9-Dec-19	33	500	485														
16-Dec-19	34	500	460														
23-Dec-19	35	500	490														
30-Dec-19	36	500	480	0.000438	0.00651	3.76	0.093	<0.00001	<0.002	<0.00005	0.188	2.12	0.00596	0.00725	2.07	0.0000061	0.070
6-Jan-20	37	500	490														
13-Jan-20	38	500	445														
20-Jan-20	39	500	490														

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-09; Sample ID: 11-12-35

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	555	0.0300	194	<0.0002	0.000386	0.000072	<0.004	<0.005	<0.0001	0.0104	<0.002	8.30	<0.001
29-Apr-19	1	500	495												
6-May-19	2	500	475												
13-May-19	3	500	495												
20-May-19	4	500	470	0.0149	40	<0.00002	0.000227	0.000006	<0.002	<0.0005	<0.00001	0.0015	<0.0002	2.14	<0.0001
27-May-19	5	500	500												
3-Jun-19	6	500	485												
10-Jun-19	7	500	480												
17-Jun-19	8	500	465	0.0109	27	<0.00002	0.000181	<0.000005	<0.002	<0.0005	<0.00001	0.0007	<0.0002	1.52	<0.0001
24-Jun-19	9	500	465												
1-Jul-19	10	500	450												
8-Jul-19	11	500	450												
15-Jul-19	12	500	490	0.0113	25	<0.00002	0.000164	<0.000005	<0.002	<0.0005	<0.00001	0.000473	<0.0002	1.25	<0.0001
22-Jul-19	13	500	485												
29-Jul-19	14	500	480												
5-Aug-19	15	500	475												
12-Aug-19	16	500	460	0.0117	22	<0.00002	0.000169	<0.000005	<0.002	<0.0005	<0.00001	0.0003	<0.0002	1.19	<0.0001
19-Aug-19	17	500	470												
26-Aug-19	18	500	490												
2-Sep-19	19	500	480												
9-Sep-19	20	500	440	0.0107	18	<0.00002	0.000149	<0.000005	<0.002	<0.0005	<0.00001	0.000280	<0.0002	0.98	<0.0001
16-Sep-19	21	500	490												
23-Sep-19	22	500	475												
30-Sep-19	23	500	470												
7-Oct-19	24	500	475	0.00829	14	<0.00002	0.000119	<0.000005	<0.002	<0.0005	<0.00001	0.000195	<0.0002	0.743	<0.0001
14-Oct-19	25	500	465												
21-Oct-19	26	500	460												
28-Oct-19	27	500	470												
4-Nov-19	28	500	495	0.00771	12	<0.00002	0.000118	<0.000005	<0.002	<0.0005	<0.00001	0.000175	<0.0002	0.602	<0.0001
11-Nov-19	29	500	495												
18-Nov-19	30	500	475												
25-Nov-19	31	500	480												
2-Dec-19	32	500	475	0.00742	11	<0.00002	0.000112	<0.000005	<0.002	<0.0005	<0.00001	0.000146	<0.0002	0.523	<0.0001
9-Dec-19	33	500	485												
16-Dec-19	34	500	460												
23-Dec-19	35	500	490												
30-Dec-19	36	500	480	0.00693	<10	<0.00002	0.000097	<0.000005	<0.002	<0.0005	<0.00001	0.000120	<0.0002	0.519	<0.0001
6-Jan-20	37	500	490												
13-Jan-20	38	500	445												
20-Jan-20	39	500	490												

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-10; Sample ID: 11-12-44

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	620	8.07	323	118	28.7	0.62	0.7	<0.02	<0.005			0.005	2.590	133	0.0345
29-Apr-19	1	500	460	7.85	306												
6-May-19	2	500	455	7.92	239	62	53.4										
13-May-19	3	500	495	8.01	219												
20-May-19	4	500	440	7.91	240	72	55.2	0.54	<0.5	<0.02	0.012			0.007	2.860	101	0.0532
27-May-19	5	500	460	7.83	150												
3-Jun-19	6	500	490	7.83	170	14	62.4										
10-Jun-19	7	500	470	7.89	146												
17-Jun-19	8	500	470	7.92	161	12	52.3	0.36	<0.5	0.32				<0.003	0.485	76	0.0922
24-Jun-19	9	500	460	8.00	162												
1-Jul-19	10	500	465	7.84	146	9	58.3										
8-Jul-19	11	500	465	8.00	147												
15-Jul-19	12	500	465	8.01	143	10	57.1	0.33	<0.5	0.59	0.075			0.004	1.305	71	0.0238
22-Jul-19	13	500	475	7.94	146												
29-Jul-19	14	500	470	8.02	138	9	63.7										
5-Aug-19	15	500	475	7.89	169												
12-Aug-19	16	500	470	7.92	119	8	54.9	0.24	0.8	0.13	<0.005			<0.003	1.550	59	0.0846
19-Aug-19	17	500	495	8.10	130												
26-Aug-19	18	500	485	8.05	115	8	53.6										
2-Sep-19	19	500	465	8.08	121												
9-Sep-19	20	500	495	7.90	137	6	69.2	0.20	0.6	0.10	<0.005	0.025		0.014	2.198	73	0.0236
16-Sep-19	21	500	485	7.96	114												
23-Sep-19	22	500	465	8.68	86	6	35.8										
30-Sep-19	23	500	465	8.00	128												
7-Oct-19	24	500	475	7.93	159	5	82.8	0.21	<0.5	0.09	<0.005	0.008		0.009	2.003	85	0.0234
14-Oct-19	25	500	470	7.88	145												
21-Oct-19	26	500	495	7.91	142	5	73.7										
28-Oct-19	27	500	480	7.85	131												
4-Nov-19	28	500	465	7.89	131	5	63.3	0.18	<0.5	0.07	<0.005	0.011		0.004	1.447	66.5	0.0582
11-Nov-19	29	500	495	7.82	172												
18-Nov-19	30	500	485	7.84	155	5	75.0										
25-Nov-19	31	500	475	7.66	164												
2-Dec-19	32	500	480	8.04	178	7	84.4	0.18	<0.5	0.04	0.010	0.016		<0.003	0.472	93	0.0661
9-Dec-19	33	500	490	7.94	178												
16-Dec-19	34	500	495	7.66	170	12	83.8										
23-Dec-19	35	500	475	7.86	160												
30-Dec-19	36	500	480	7.90	163	8	75.1	0.11	<0.5	0.03	<0.005	0.013		<0.003	0.824	86.4	0.0078
6-Jan-20	37	500	490	7.79	177												
13-Jan-20	38	500	495	8.03	159	5	77.9					0.011	0.0142				
20-Jan-20	39	500	470	7.83	175												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-10; Sample ID: 11-12-44

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	620	0.00134	0.000290	0.0561	<0.00001	<0.000005	<0.05	0.000160	0.0000640	28.2	<0.0001	0.00278	0.00057	<0.00005	0.0119
29-Apr-19	1	500	460														
6-May-19	2	500	455														
13-May-19	3	500	495														
20-May-19	4	500	440	0.00100	0.000660	0.0369	<0.00001	<0.000005	<0.05	0.000108	0.0000670	21.1	0.00066	0.00215	0.00035	<0.00005	0.0434
27-May-19	5	500	460														
3-Jun-19	6	500	490														
10-Jun-19	7	500	470														
17-Jun-19	8	500	470	0.00054	0.000085	0.0557	<0.00001	<0.000005	<0.05	0.000070	0.0000579	14.4	0.00013	0.00121	<0.0003	<0.00005	0.1150
24-Jun-19	9	500	460														
1-Jul-19	10	500	465														
8-Jul-19	11	500	465														
15-Jul-19	12	500	465	0.000436	0.000054	0.0515	<0.00001	<0.000005	<0.05	<0.00005	0.0000421	12.7	<0.0001	0.000695	<0.0003	<0.00005	0.0128
22-Jul-19	13	500	475														
29-Jul-19	14	500	470														
5-Aug-19	15	500	475														
12-Aug-19	16	500	470	0.00028	0.000066	0.0590	<0.00001	<0.000005	<0.05	<0.00005	0.0000439	10.6	0.00012	0.00052	<0.0003	<0.00005	0.0419
19-Aug-19	17	500	495														
26-Aug-19	18	500	485														
2-Sep-19	19	500	465														
9-Sep-19	20	500	495	0.00023	0.000086	0.0702	<0.00001	<0.000005	<0.05	<0.00005	0.0000417	12.7	<0.0001	0.00033	<0.0003	<0.00005	<0.005
16-Sep-19	21	500	485														
23-Sep-19	22	500	465														
30-Sep-19	23	500	465														
7-Oct-19	24	500	475	0.000182	<0.00002	0.0861	<0.00001	<0.000005	<0.05	<0.00005	0.0000396	13.8	<0.0001	0.000214	<0.0003	<0.00005	<0.005
14-Oct-19	25	500	470														
21-Oct-19	26	500	495														
28-Oct-19	27	500	480														
4-Nov-19	28	500	465	0.000127	0.000039	0.0676	<0.00001	<0.000005	<0.05	<0.00005	0.0000350	11.0	<0.0001	0.000288	<0.0003	<0.00005	0.0390
11-Nov-19	29	500	495														
18-Nov-19	30	500	485														
25-Nov-19	31	500	475														
2-Dec-19	32	500	480	0.000130	0.000023	0.0878	<0.00001	<0.000005	<0.05	<0.00005	0.0000400	15.0	<0.0001	0.000091	0.00044	<0.00005	0.0151
9-Dec-19	33	500	490														
16-Dec-19	34	500	495														
23-Dec-19	35	500	475														
30-Dec-19	36	500	480	0.000104	<0.00002	0.0869	<0.00001	<0.000005	<0.05	<0.00005	0.0000311	13.8	<0.0001	0.000038	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	490														
13-Jan-20	38	500	495														
20-Jan-20	39	500	470														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-10; Sample ID: 11-12-44

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	620	<0.00005	0.0153	15.2	0.0197	<0.00001	0.0117	0.0375	0.00461	5.13	0.00712	0.0635	1.03	<0.000005	1.79
29-Apr-19	1	500	460														
6-May-19	2	500	455														
13-May-19	3	500	495														
20-May-19	4	500	440	0.000115	0.0123	11.7	0.0280	<0.00001	0.0107	0.0211	0.00309	3.16	0.00455	0.0289	1.02	<0.000005	1.12
27-May-19	5	500	460														
3-Jun-19	6	500	490														
10-Jun-19	7	500	470														
17-Jun-19	8	500	470	0.000128	0.0084	9.9	0.0257	<0.00001	0.0129	0.0068	0.00212	2.33	0.00247	0.0043	0.74	<0.000005	0.48
24-Jun-19	9	500	460														
1-Jul-19	10	500	465														
8-Jul-19	11	500	465														
15-Jul-19	12	500	465	<0.00005	0.00873	9.50	0.0188	<0.00001	<0.002	0.00503	0.00113	2.05	0.00164	0.00439	0.51	<0.000005	0.314
22-Jul-19	13	500	475														
29-Jul-19	14	500	470														
5-Aug-19	15	500	475														
12-Aug-19	16	500	470	<0.00005	0.0077	8.0	0.0192	<0.00001	0.0068	0.0025	0.00088	1.65	0.00151	0.0030	0.50	<0.000005	0.22
19-Aug-19	17	500	495														
26-Aug-19	18	500	485														
2-Sep-19	19	500	465														
9-Sep-19	20	500	495	<0.00005	0.0084	10.0	0.0137	<0.00001	<0.002	0.0017	0.00083	1.96	0.00157	0.0033	0.40	<0.000005	0.21
16-Sep-19	21	500	485														
23-Sep-19	22	500	465														
30-Sep-19	23	500	465														
7-Oct-19	24	500	475	<0.00005	0.00939	12.3	0.00684	<0.00001	0.0020	0.00140	0.00078	1.96	0.00164	0.00372	0.39	<0.000005	0.221
14-Oct-19	25	500	470														
21-Oct-19	26	500	495														
28-Oct-19	27	500	480														
4-Nov-19	28	500	465	0.000056	0.00685	9.50	0.00549	<0.00001	0.0101	0.00100	0.00075	1.62	0.00131	0.00325	0.37	<0.000005	0.171
11-Nov-19	29	500	495														
18-Nov-19	30	500	485														
25-Nov-19	31	500	475														
2-Dec-19	32	500	480	<0.00005	0.00944	13.4	0.00266	<0.00001	0.0108	0.00066	0.00084	1.94	0.00156	0.00340	0.44	<0.000005	0.191
9-Dec-19	33	500	490														
16-Dec-19	34	500	495														
23-Dec-19	35	500	475														
30-Dec-19	36	500	480	<0.00005	0.00840	12.60	0.00197	<0.00001	<0.002	0.00069	0.00042	1.89	0.00131	0.00357	0.30	<0.000005	0.163
6-Jan-20	37	500	490														
13-Jan-20	38	500	495														
20-Jan-20	39	500	470														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-10; Sample ID: 11-12-44

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	620	0.0299	38	<0.00002	0.0000440	<0.000005	<0.002	<0.0005	0.000012	0.000585	0.00053	0.0011	<0.0001
29-Apr-19	1	500	460												
6-May-19	2	500	455												
13-May-19	3	500	495												
20-May-19	4	500	440	0.0224	18	<0.00002	0.0000370	0.0000200	<0.002	0.00598	<0.00001	0.001220	0.00251	0.0028	<0.0001
27-May-19	5	500	460												
3-Jun-19	6	500	490												
10-Jun-19	7	500	470												
17-Jun-19	8	500	470	0.0196	<10	<0.00002	0.0000186	0.0000197	<0.002	0.00209	<0.00001	0.000278	0.00021	0.0021	<0.0001
24-Jun-19	9	500	460												
1-Jul-19	10	500	465												
8-Jul-19	11	500	465												
15-Jul-19	12	500	465	0.0211	<10	<0.00002	0.0000095	<0.000005	<0.002	<0.0005	<0.00001	0.000303	<0.0002	0.0011	<0.0001
22-Jul-19	13	500	475												
29-Jul-19	14	500	470												
5-Aug-19	15	500	475												
12-Aug-19	16	500	470	0.0193	<10	<0.00002	0.0000091	0.0000111	<0.002	0.00133	<0.00001	0.000106	0.00029	0.0013	<0.0001
19-Aug-19	17	500	495												
26-Aug-19	18	500	485												
2-Sep-19	19	500	465												
9-Sep-19	20	500	495	0.0242	<10	0.000029	0.0000123	<0.000005	<0.002	<0.0005	<0.00001	0.000127	<0.0002	0.0012	<0.0001
16-Sep-19	21	500	485												
23-Sep-19	22	500	465												
30-Sep-19	23	500	465												
7-Oct-19	24	500	475	0.0278	<10	<0.00002	0.0000095	<0.000005	<0.002	0.00060	<0.00001	0.000188	<0.0002	<0.001	<0.0001
14-Oct-19	25	500	470												
21-Oct-19	26	500	495												
28-Oct-19	27	500	480												
4-Nov-19	28	500	465	0.0224	<10	<0.00002	0.0000108	0.0000102	<0.002	0.00151	<0.00001	0.000104	<0.0002	0.0017	<0.0001
11-Nov-19	29	500	495												
18-Nov-19	30	500	485												
25-Nov-19	31	500	475												
2-Dec-19	32	500	480	0.0313	<10	<0.00002	0.0000109	<0.000005	<0.002	0.00130	<0.00001	0.000204	0.00020	0.0012	<0.0001
9-Dec-19	33	500	490												
16-Dec-19	34	500	495												
23-Dec-19	35	500	475												
30-Dec-19	36	500	480	0.0288	<10	<0.00002	0.0000094	<0.000005	<0.002	<0.0005	<0.00001	0.000204	<0.0002	<0.001	<0.0001
6-Jan-20	37	500	490												
13-Jan-20	38	500	495												
20-Jan-20	39	500	470												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-11; Sample ID: 11-19-101

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	455	7.75	459	135	22.1	0.52	0.7	0.06	<0.005			0.021	3.700	6.8	0.152
29-Apr-19	1	500	500	7.86	534												
6-May-19	2	500	480	8.06	339	113	33.5										
13-May-19	3	500	485	8.15	255												
20-May-19	4	500	480	7.61	200	62	27.3	0.72	<0.5	<0.02	0.035			0.015	3.020	3.1	0.383
27-May-19	5	500	460	8.35	176												
3-Jun-19	6	500	480	8.32	160	33	34.0										
10-Jun-19	7	500	470	8.13	150												
17-Jun-19	8	500	460	8.40	143	27	28.2	0.57	<0.5		<0.005			0.003	1.020	2.3	0.341
24-Jun-19	9	500	460	8.15	162												
1-Jul-19	10	500	460	7.66	198	15	21.9										
8-Jul-19	11	500	480	7.41	208												
15-Jul-19	12	500	470	7.42	197	14	10.4	0.29	<0.5		<0.005			0.006	2.360	8.7	0.109
22-Jul-19	13	500	475	7.68	150												
29-Jul-19	14	500	470	7.84	128	20	14.3										
5-Aug-19	15	500	470	7.70	110												
12-Aug-19	16	500	475	7.85	94	17	13.7	0.34	2.0	2.00	<0.005			0.007	2.570	3.8	0.447
19-Aug-19	17	500	480	7.57	87												
26-Aug-19	18	500	475	7.70	80	14	12.9										
2-Sep-19	19	500	465	7.70	81												
9-Sep-19	20	500	475	7.84	80	14	14.2	0.32	3.7	0.58	<0.005	0.015		0.008	2.522	3.5	0.154
16-Sep-19	21	500	470	7.74	70												
23-Sep-19	22	500	455	7.89	70	13	11.5										
30-Sep-19	23	500	465	7.83	128												
7-Oct-19	24	500	480	7.76	67	11	11.3	0.21	2.5	0.29	<0.005	0.014		0.010	1.769	4.3	0.156
14-Oct-19	25	500	460	7.90	67												
21-Oct-19	26	500	470	7.75	52	12	11.0										
28-Oct-19	27	500	475	7.66	63												
4-Nov-19	28	500	460	7.39	66	15	11.4	0.20	1.8	0.19	<0.005	0.013		0.004	1.668	5.1	0.192
11-Nov-19	29	500	490	7.67	68												
18-Nov-19	30	500	480	7.46	56	10	11.1										
25-Nov-19	31	500	465	7.39	55												
2-Dec-19	32	500	465	7.55	63	12	12.1	0.16	1.2	0.11	<0.005	0.014		0.028	2.035	7.3	0.330
9-Dec-19	33	500	480	7.64	60												
16-Dec-19	34	500	495	7.51	59	11	11.3										
23-Dec-19	35	500	480	7.56	50												
30-Dec-19	36	500	485	7.47	51	11	8.2	<0.05	0.8	0.05	<0.005	0.007		<0.003	1.357	7.7	0.157
6-Jan-20	37	500	480	7.38	47												
13-Jan-20	38	500	480	7.34	46	9.5	7.2					0.015	0.0181				
20-Jan-20	39	500	475	7.26	45												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-11; Sample ID: 11-19-101

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	455	0.00192	0.00218	0.0796	0.000015	0.0000060	<0.05	0.000191	0.0000370	1.89	0.00029	0.00439	0.00084	<0.00005	0.0284
29-Apr-19	1	500	500														
6-May-19	2	500	480														
13-May-19	3	500	485														
20-May-19	4	500	480	0.00281	0.00379	0.0549	0.000022	<0.000005	<0.05	0.000149	0.0000150	0.87	0.00051	0.00206	0.00076	0.000088	0.0520
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	470														
17-Jun-19	8	500	460	0.00301	0.00324	0.0489	0.000012	<0.000005	<0.05	0.000107	0.0000138	0.636	0.00040	0.00176	0.00048	0.000084	0.0398
24-Jun-19	9	500	460														
1-Jul-19	10	500	460														
8-Jul-19	11	500	480														
15-Jul-19	12	500	470	0.00162	0.000768	0.0724	<0.00001	<0.000005	<0.05	<0.00005	0.0000412	2.33	0.00012	0.00308	<0.0003	<0.00005	0.0109
22-Jul-19	13	500	475														
29-Jul-19	14	500	470														
5-Aug-19	15	500	470														
12-Aug-19	16	500	475	0.00186	0.00158	0.0505	0.000027	0.0000102	<0.05	0.000152	0.0000369	1.03	0.00056	0.00290	0.00080	0.000190	0.1220
19-Aug-19	17	500	480														
26-Aug-19	18	500	475														
2-Sep-19	19	500	465														
9-Sep-19	20	500	475	0.00190	0.00138	0.0258	<0.00001	<0.000005	<0.05	<0.00005	0.0000158	0.95	0.00021	0.00133	<0.0003	<0.00005	0.0125
16-Sep-19	21	500	470														
23-Sep-19	22	500	455														
30-Sep-19	23	500	465														
7-Oct-19	24	500	480	0.00154	0.000864	0.0247	<0.00001	<0.000005	<0.05	<0.00005	0.0000172	1.17	0.00017	0.00142	<0.0003	<0.00005	0.0110
14-Oct-19	25	500	460														
21-Oct-19	26	500	470														
28-Oct-19	27	500	475														
4-Nov-19	28	500	460	0.00146	0.000825	0.0274	<0.00001	<0.000005	<0.05	<0.00005	0.0000276	1.39	0.00023	0.00167	0.00031	<0.00005	0.0174
11-Nov-19	29	500	490														
18-Nov-19	30	500	480														
25-Nov-19	31	500	465														
2-Dec-19	32	500	465	0.00138	0.000674	0.0473	<0.00001	<0.000005	<0.05	0.000061	0.0000432	1.98	0.00038	0.00265	0.00033	0.000081	0.0295
9-Dec-19	33	500	480														
16-Dec-19	34	500	495														
23-Dec-19	35	500	480														
30-Dec-19	36	500	485	0.00106	0.000610	0.0375	0.000014	0.0000055	<0.05	0.000089	0.0000524	2.09	0.00014	0.00283	0.00053	0.000128	0.0625
6-Jan-20	37	500	480														
13-Jan-20	38	500	480														
20-Jan-20	39	500	475														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-11; Sample ID: 11-19-101

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	455	0.000214	0.0958	0.503	0.00370	<0.00001	0.0351	0.0304	0.0102	1.48	0.00273	0.0115	1.36	0.0000070	79.8
29-Apr-19	1	500	500														
6-May-19	2	500	480														
13-May-19	3	500	485														
20-May-19	4	500	480	0.000242	0.0426	0.221	0.00084	<0.00001	0.0217	0.0531	0.0045	0.72	0.00155	0.0077	1.42	0.0000080	36.1
27-May-19	5	500	460														
3-Jun-19	6	500	480														
10-Jun-19	7	500	470														
17-Jun-19	8	500	460	0.000157	0.0303	0.180	0.00045	<0.00001	0.0206	0.0285	0.00382	0.542	0.00123	0.00410	1.30	0.0000067	28.3
24-Jun-19	9	500	460														
1-Jul-19	10	500	460														
8-Jul-19	11	500	480														
15-Jul-19	12	500	470	<0.00005	0.0408	0.687	0.00174	<0.00001	0.0032	0.00946	0.00439	0.676	0.000633	0.00321	1.06	<0.000005	35.5
22-Jul-19	13	500	475														
29-Jul-19	14	500	470														
5-Aug-19	15	500	470														
12-Aug-19	16	500	475	0.000536	0.0205	0.285	0.00145	<0.00001	0.0373	0.0134	0.0050	0.57	0.00136	0.0023	1.34	0.000030	17.0
19-Aug-19	17	500	480														
26-Aug-19	18	500	475														
2-Sep-19	19	500	465														
9-Sep-19	20	500	475	<0.00005	0.0183	0.278	0.00048	<0.00001	<0.002	0.0112	0.0020	0.49	0.00056	0.0019	0.95	<0.000005	14.7
16-Sep-19	21	500	470														
23-Sep-19	22	500	455														
30-Sep-19	23	500	465														
7-Oct-19	24	500	480	<0.00005	0.0153	0.338	0.00047	<0.00001	0.0040	0.00838	0.00212	0.469	0.000530	0.00173	0.77	<0.000005	12.1
14-Oct-19	25	500	460														
21-Oct-19	26	500	470														
28-Oct-19	27	500	475														
4-Nov-19	28	500	460	<0.00005	0.0136	0.405	0.00085	<0.00001	0.0090	0.00680	0.00252	0.553	0.000619	0.00176	0.90	<0.000005	10.9
11-Nov-19	29	500	490														
18-Nov-19	30	500	480														
25-Nov-19	31	500	465														
2-Dec-19	32	500	465	0.000074	0.0152	0.582	0.00116	<0.00001	0.0072	0.00618	0.00395	0.681	0.000869	0.00156	1.12	<0.000005	9.80
9-Dec-19	33	500	480														
16-Dec-19	34	500	495														
23-Dec-19	35	500	480														
30-Dec-19	36	500	485	<0.00005	0.0114	0.603	0.00185	<0.00001	0.0028	0.00389	0.00440	0.611	0.000754	0.000842	0.68	<0.000005	6.52
6-Jan-20	37	500	480														
13-Jan-20	38	500	480														
20-Jan-20	39	500	475														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-11; Sample ID: 11-19-101

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	455	0.0448	54	<0.00002	0.0000460	0.0000310	<0.002	0.00327	0.000370	0.0000960	0.00166	0.0064	0.00029
29-Apr-19	1	500	500												
6-May-19	2	500	480												
13-May-19	3	500	485												
20-May-19	4	500	480	0.0212	18	<0.00002	0.0000220	0.0000430	<0.002	0.01000	0.000624	0.0002690	0.00224	0.0057	0.00033
27-May-19	5	500	460												
3-Jun-19	6	500	480												
10-Jun-19	7	500	470												
17-Jun-19	8	500	460	0.0160	<10	<0.00002	0.0000167	0.0000250	<0.002	0.00567	0.000639	0.000203	0.00165	0.0044	0.00032
24-Jun-19	9	500	460												
1-Jul-19	10	500	460												
8-Jul-19	11	500	480												
15-Jul-19	12	500	470	0.0528	<10	<0.00002	0.0000076	0.0000075	<0.002	0.00190	0.000100	0.0000542	0.00051	0.0047	<0.0001
22-Jul-19	13	500	475												
29-Jul-19	14	500	470												
5-Aug-19	15	500	470												
12-Aug-19	16	500	475	0.0220	<10	<0.00002	0.0000161	0.0001140	<0.002	0.00984	0.000182	0.0001100	0.00155	0.0083	0.00088
19-Aug-19	17	500	480												
26-Aug-19	18	500	475												
2-Sep-19	19	500	465												
9-Sep-19	20	500	475	0.0203	<10	0.000025	0.0000073	0.0000121	<0.002	0.00289	0.000159	0.0000739	0.00090	0.0024	0.00011
16-Sep-19	21	500	470												
23-Sep-19	22	500	455												
30-Sep-19	23	500	465												
7-Oct-19	24	500	480	0.0229	<10	<0.00002	0.0000063	<0.000005	<0.002	0.00312	0.000098	0.0000711	0.00058	0.0027	0.00014
14-Oct-19	25	500	460												
21-Oct-19	26	500	470												
28-Oct-19	27	500	475												
4-Nov-19	28	500	460	0.0266	<10	<0.00002	0.0000077	0.0000088	<0.002	0.00404	0.000091	0.0000749	0.00078	0.0043	0.00027
11-Nov-19	29	500	490												
18-Nov-19	30	500	480												
25-Nov-19	31	500	465												
2-Dec-19	32	500	465	0.0385	<10	<0.00002	0.0000110	0.0000211	<0.002	0.00664	0.000081	0.0000725	0.00096	0.0063	0.00037
9-Dec-19	33	500	480												
16-Dec-19	34	500	495												
23-Dec-19	35	500	480												
30-Dec-19	36	500	485	0.0382	<10	<0.00002	0.0000113	0.0000448	<0.002	0.00195	0.000050	0.0000632	0.00048	0.0079	0.00010
6-Jan-20	37	500	480												
13-Jan-20	38	500	480												
20-Jan-20	39	500	475												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-12; Sample ID: BH18-12

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	600	9.03	130	31.2	21.2	0.15	0.8	0.03	0.006			0.009	3.076	51.9	0.0776
29-Apr-19	1	500	470	8.72	175												
6-May-19	2	500	480	8.70	139	31.8	30.5										
13-May-19	3	500	495	8.67	129												
20-May-19	4	500	480	8.46	101	20.0	26.3	0.10	<0.5	<0.02	<0.005			0.007	3.200	53.8	0.215
27-May-19	5	500	485	8.86	96												
3-Jun-19	6	500	480	8.78	88	11.6	30.0										
10-Jun-19	7	500	480	8.60	91												
17-Jun-19	8	500	475	8.78	89	11.0	31.8	0.08	<0.5	<0.02	<0.005			0.004	0.897	43.1	0.178
24-Jun-19	9	500	460	8.94	79												
1-Jul-19	10	500	470	8.95	81	8.7	30.4										
8-Jul-19	11	500	480	8.69	78												
15-Jul-19	12	500	485	8.78	79	8.3	27.9	0.06	<0.5	0.02	<0.005			0.009	1.760	37.9	0.0923
22-Jul-19	13	500	480	8.97	67												
29-Jul-19	14	500	480	8.94	73	6.7	30.2										
5-Aug-19	15	500	475	8.90	70												
12-Aug-19	16	500	470	8.95	76	6.7	28.9	0.05	0.9	<0.02	<0.005			0.007	1.666	40.3	0.254
19-Aug-19	17	500	485	8.44	71												
26-Aug-19	18	500	480	8.79	72	8.1	29.0										
2-Sep-19	19	500	470	8.73	68												
9-Sep-19	20	500	480	8.83	78	6.9	34.4	<0.05	0.7	0.03	<0.005	0.022		0.199	2.229	38.3	0.0892
16-Sep-19	21	500	475	8.85	77												
23-Sep-19	22	500	470	8.93	68	4.9	29.1										
30-Sep-19	23	500	470	8.83	67												
7-Oct-19	24	500	490	8.88	70	7.1	29.1	<0.05	<0.5	0.05	<0.005	0.018		0.008	2.505	35.1	0.119
14-Oct-19	25	500	470	8.86	69												
21-Oct-19	26	500	480	8.87	64	5.4	29.8										
28-Oct-19	27	500	480	8.73	72												
4-Nov-19	28	500	475	8.34	80	5.5	33.1	<0.05	<0.5	0.08	<0.005	0.019		<0.003	0.963	37.8	0.0673
11-Nov-19	29	500	480	8.64	83												
18-Nov-19	30	500	480	8.64	81	7.5	35.7										
25-Nov-19	31	500	480	8.42	83												
2-Dec-19	32	500	485	8.68	81	5.0	34.1	<0.05	<0.5	0.06	0.007	0.015		<0.003	0.838	41.4	0.174
9-Dec-19	33	500	480	8.60	80												
16-Dec-19	34	500	485	8.82	83	8.1	34.9										
23-Dec-19	35	500	485	8.70	80												
30-Dec-19	36	500	490	8.67	79	6.8	33.0	<0.05	<0.5	0.05	<0.005	0.024		<0.003	1.857	39.6	0.0461
6-Jan-20	37	500	490	8.24	81												
13-Jan-20	38	500	485	8.19	80	10.5	33.0					0.0059	0.0122				
20-Jan-20	39	500	480	8.29	79												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-12; Sample ID: BH18-12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	600	0.000975	0.000387	0.110	0.000010	<0.000005	<0.05	<0.00005	0.0000220	15.4	0.00012	0.000292	0.00063	0.00065	0.0981
29-Apr-19	1	500	470														
6-May-19	2	500	480														
13-May-19	3	500	495														
20-May-19	4	500	480	0.00119	0.000414	0.0839	0.000022	0.0000060	<0.05	0.000093	0.0000510	15.5	0.00024	0.000513	0.00073	0.000287	0.433
27-May-19	5	500	485														
3-Jun-19	6	500	480														
10-Jun-19	7	500	480														
17-Jun-19	8	500	475	0.00104	0.000186	0.0736	0.000012	<0.000005	<0.05	0.000063	0.0000309	11.8	0.00022	0.000316	0.00045	0.000118	0.168
24-Jun-19	9	500	460														
1-Jul-19	10	500	470														
8-Jul-19	11	500	480														
15-Jul-19	12	500	485	0.000875	0.000110	0.0650	<0.00001	<0.000005	<0.05	<0.00005	0.0000114	10.1	<0.0001	0.000123	<0.0003	<0.00005	0.0261
22-Jul-19	13	500	480														
29-Jul-19	14	500	480														
5-Aug-19	15	500	475														
12-Aug-19	16	500	470	0.00072	0.000203	0.0675	0.000016	<0.000005	<0.05	0.000076	0.0000245	10.6	0.00040	0.000329	0.00045	0.000175	0.262
19-Aug-19	17	500	485														
26-Aug-19	18	500	480														
2-Sep-19	19	500	470														
9-Sep-19	20	500	480	0.000584	0.000124	0.0620	<0.00001	<0.000005	<0.05	<0.00005	0.0000080	9.9	0.00011	0.000108	<0.0003	<0.00005	0.0139
16-Sep-19	21	500	475														
23-Sep-19	22	500	470														
30-Sep-19	23	500	470														
7-Oct-19	24	500	490	0.000454	0.000046	0.0505	<0.00001	<0.000005	<0.05	<0.00005	0.0000055	8.83	0.00013	0.0000576	<0.0003	<0.00005	0.0146
14-Oct-19	25	500	470														
21-Oct-19	26	500	480														
28-Oct-19	27	500	480														
4-Nov-19	28	500	475	0.000363	0.000068	0.0463	<0.00001	<0.000005	<0.05	<0.00005	0.0000102	9.16	<0.0001	0.0000511	<0.0003	<0.00005	0.0099
11-Nov-19	29	500	480														
18-Nov-19	30	500	480														
25-Nov-19	31	500	480														
2-Dec-19	32	500	485	0.000344	0.000061	0.0543	<0.00001	<0.000005	<0.05	<0.00005	0.0000168	9.84	0.00023	0.0000801	0.00052	0.000051	0.0594
9-Dec-19	33	500	480														
16-Dec-19	34	500	485														
23-Dec-19	35	500	485														
30-Dec-19	36	500	490	0.000265	0.000044	0.0497	<0.00001	<0.000005	<0.05	<0.00005	0.0000140	9.15	<0.0001	0.0000159	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	490														
13-Jan-20	38	500	485														
20-Jan-20	39	500	480														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-12; Sample ID: BH18-12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	600	0.000105	0.00442	3.26	0.0116	<0.00001	0.0323	0.0445	0.00158	2.12	0.00163	0.0253	0.95	<0.000005	1.20
29-Apr-19	1	500	470														
6-May-19	2	500	480														
13-May-19	3	500	495														
20-May-19	4	500	480	0.000411	0.00357	3.69	0.0216	<0.00001	0.0606	0.0325	0.00184	1.48	0.00137	0.0133	1.12	0.0000090	0.759
27-May-19	5	500	485														
3-Jun-19	6	500	480														
10-Jun-19	7	500	480														
17-Jun-19	8	500	475	0.000149	0.00230	3.29	0.0136	<0.00001	0.0349	0.0226	0.00140	1.47	0.00131	0.0068	0.87	0.0000064	0.540
24-Jun-19	9	500	460														
1-Jul-19	10	500	470														
8-Jul-19	11	500	480														
15-Jul-19	12	500	485	<0.00005	0.00201	3.10	0.00909	<0.00001	0.0037	0.0180	0.00049	1.21	0.00101	0.00528	0.62	<0.000005	0.352
22-Jul-19	13	500	480														
29-Jul-19	14	500	480														
5-Aug-19	15	500	475														
12-Aug-19	16	500	470	0.000245	0.00167	3.34	0.0122	<0.00001	0.0375	0.0135	0.00099	1.22	0.00139	0.0043	0.83	0.0000194	0.277
19-Aug-19	17	500	485														
26-Aug-19	18	500	480														
2-Sep-19	19	500	470														
9-Sep-19	20	500	480	<0.00005	0.00163	3.28	0.00521	<0.00001	<0.002	0.0118	0.00039	1.18	0.00103	0.00437	0.60	<0.000005	0.241
16-Sep-19	21	500	475														
23-Sep-19	22	500	470														
30-Sep-19	23	500	470														
7-Oct-19	24	500	490	<0.00005	0.00122	3.16	0.00284	<0.00001	0.0024	0.00875	0.00035	1.07	0.000950	0.00370	0.50	<0.000005	0.180
14-Oct-19	25	500	470														
21-Oct-19	26	500	480														
28-Oct-19	27	500	480														
4-Nov-19	28	500	475	<0.00005	0.00096	3.62	0.00306	<0.00001	0.0059	0.00738	0.00032	0.964	0.000852	0.00269	0.42	<0.000005	0.156
11-Nov-19	29	500	480														
18-Nov-19	30	500	480														
25-Nov-19	31	500	480														
2-Dec-19	32	500	485	<0.00005	0.00123	4.09	0.00321	<0.00001	0.0173	0.00643	0.00048	1.02	0.000999	0.00194	0.60	<0.000005	0.159
9-Dec-19	33	500	480														
16-Dec-19	34	500	485														
23-Dec-19	35	500	485														
30-Dec-19	36	500	490	<0.00005	0.00101	4.06	0.00167	<0.00001	<0.002	0.00571	<0.0002	0.894	0.000691	0.00234	0.36	<0.000005	0.128
6-Jan-20	37	500	490														
13-Jan-20	38	500	485														
20-Jan-20	39	500	480														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-12; Sample ID: BH18-12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	600	0.0393	11	<0.00002	0.0000160	0.0000330	<0.002	0.00062	0.000017	0.000244	0.00104	0.0021	<0.0001
29-Apr-19	1	500	470												
6-May-19	2	500	480												
13-May-19	3	500	495												
20-May-19	4	500	480	0.0352	<10	<0.00002	0.0000170	0.000135	<0.002	0.00253	0.000012	0.000617	0.00120	0.0035	0.00018
27-May-19	5	500	485												
3-Jun-19	6	500	480												
10-Jun-19	7	500	480												
17-Jun-19	8	500	475	0.0263	<10	<0.00002	0.0000154	0.000041	<0.002	0.00317	<0.00001	0.000486	0.00071	0.0021	0.00011
24-Jun-19	9	500	460												
1-Jul-19	10	500	470												
8-Jul-19	11	500	480												
15-Jul-19	12	500	485	0.0275	<10	<0.00002	0.0000098	0.0000058	<0.002	0.00087	<0.00001	0.000419	0.00040	<0.001	<0.0001
22-Jul-19	13	500	480												
29-Jul-19	14	500	480												
5-Aug-19	15	500	475												
12-Aug-19	16	500	470	0.0292	<10	0.000035	0.0000170	0.000089	<0.002	0.00435	<0.00001	0.000395	0.00102	0.0030	0.00012
19-Aug-19	17	500	485												
26-Aug-19	18	500	480												
2-Sep-19	19	500	470												
9-Sep-19	20	500	480	0.0293	<10	<0.00002	0.0000114	<0.000005	<0.002	0.00107	<0.00001	0.000374	0.00037	<0.001	<0.0001
16-Sep-19	21	500	475												
23-Sep-19	22	500	470												
30-Sep-19	23	500	470												
7-Oct-19	24	500	490	0.0254	<10	<0.00002	0.0000086	<0.000005	<0.002	0.00090	<0.00001	0.000286	0.00033	<0.001	<0.0001
14-Oct-19	25	500	470												
21-Oct-19	26	500	480												
28-Oct-19	27	500	480												
4-Nov-19	28	500	475	0.0290	<10	<0.00002	0.0000079	<0.000005	<0.002	0.00066	<0.00001	0.000337	0.00028	<0.001	<0.0001
11-Nov-19	29	500	480												
18-Nov-19	30	500	480												
25-Nov-19	31	500	480												
2-Dec-19	32	500	485	0.0315	<10	<0.00002	0.0000104	0.000015	<0.002	0.00253	<0.00001	0.000321	0.00056	0.002	0.0002
9-Dec-19	33	500	480												
16-Dec-19	34	500	485												
23-Dec-19	35	500	485												
30-Dec-19	36	500	490	0.0302	<10	<0.00002	0.0000070	<0.000005	<0.002	<0.0005	<0.00001	0.000255	<0.0002	<0.001	<0.0001
6-Jan-20	37	500	490												
13-Jan-20	38	500	485												
20-Jan-20	39	500	480												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-13; Sample ID: BH-18-PP12

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
22-Apr-19	0	750	615	8.98	156	42.8	26.9	0.19	0.6	0.13	<0.005			0.102	1.640	83.6	0.433	0.000802
29-Apr-19	1	500	465	8.70	214													
6-May-19	2	500	500	8.61	163	41.6	28.4											
13-May-19	3	500	495	8.75	129													
20-May-19	4	500	470	8.82	108	24.5	29.0	0.22	<0.5	<0.02	<0.005			0.007	2.670	50.0	0.131	0.000941
27-May-19	5	500	470	8.83	104													
3-Jun-19	6	500	490	8.68	98	13.7	33.0											
10-Jun-19	7	500	480	8.69	94													
17-Jun-19	8	500	470	8.77	93	11.1	32.3	0.17	<0.5	<0.02	0.084			0.004	0.686	49.9	0.264	0.000837
24-Jun-19	9	500	465	8.90	87													
1-Jul-19	10	500	465	8.89	86	8.9	31.4											
8-Jul-19	11	500	475	8.75	84													
15-Jul-19	12	500	475	8.75	83	8.6	29.0	0.14	<0.5	0.16	0.232			0.007	1.970	39.2	0.0845	0.000782
22-Jul-19	13	500	480	8.86	76													
29-Jul-19	14	500	485	8.90	80	7.7	31.0											
5-Aug-19	15	500	470	8.89	78													
12-Aug-19	16	500	485	8.86	79	7.5	29.9	0.11	0.7	0.09	<0.005			<0.003	1.090	37.0	0.255	0.000662
19-Aug-19	17	500	480	8.46	76													
26-Aug-19	18	500	480	8.88	77	9.2	29.4											
2-Sep-19	19	500	480	8.68	78													
9-Sep-19	20	500	480	8.88	81	9.8	31.8	0.09	0.7	0.03	<0.005	0.008		0.008	1.946	38.0	0.1020	0.000531
16-Sep-19	21	500	475	8.89	81													
23-Sep-19	22	500	465	8.86	87	14.8	27.0											
30-Sep-19	23	500	475	8.88	71													
7-Oct-19	24	500	485	8.89	89	15.9	25.8	0.08	<0.5	0.03	<0.005	<0.005		0.009	1.666	41.7	0.0871	0.000427
14-Oct-19	25	500	460	8.86	95													
21-Oct-19	26	500	480	8.85	86	19.0	26.1											
28-Oct-19	27	500	480	8.72	92													
4-Nov-19	28	500	480	8.64	105	22.2	27.9	0.07	<0.5	0.03	<0.005	<0.005		0.003	1.030	46.7	0.0764	0.000396
11-Nov-19	29	500	480	8.74	102													
18-Nov-19	30	500	485	8.81	101	19.7	28.1											
25-Nov-19	31	500	470	8.69	106													
2-Dec-19	32	500	490	8.32	110	24.2	30.3	0.06	<0.5	<0.02	<0.005	0.008		<0.003	0.808	51.2	0.0506	0.000374
9-Dec-19	33	500	475	8.58	108													
16-Dec-19	34	500	495	8.82	108	24.3	28.6											
23-Dec-19	35	500	480	8.72	106													
30-Dec-19	36	500	485	8.65	109	22.0	26.7	0.07	<0.5	<0.02	<0.005	0.011		<0.003	1.378	49.9	0.0341	0.000350
6-Jan-20	37	500	485	8.53	107													
13-Jan-20	38	500	485	8.49	104	26.0	26.5					0.006	0.012					
20-Jan-20	39	500	480	8.29	102													

Due to the sample matrix, sample required dilution. Detection limit Phosphorus (P) was adjusted accordingly.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-13; Sample ID: BH-18-PP12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005	0.0005	
22-Apr-19	0	750	615	0.000655	0.114	0.00004	0.000013	<0.05	0.00017	0.000016	25.0	0.0005	0.00042	0.00081	0.000434	0.8580	0.00054	0.0347	
29-Apr-19	1	500	465																
6-May-19	2	500	500																
13-May-19	3	500	495																
20-May-19	4	500	470	0.000291	0.0777	<0.00001	<0.000005	<0.05	0.00006	<0.000005	13.8	0.0001	0.00008	<0.0003	0.000053	0.0773	0.00007	0.0280	
27-May-19	5	500	470																
3-Jun-19	6	500	490																
10-Jun-19	7	500	480																
17-Jun-19	8	500	470	0.000236	0.1070	0.00002	0.0000050	<0.05	0.00012	0.000009	14.2	0.0003	0.00017	<0.0003	0.000197	0.2990	0.00018	0.0214	
24-Jun-19	9	500	465																
1-Jul-19	10	500	465																
8-Jul-19	11	500	475																
15-Jul-19	12	500	475	0.000149	0.113	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	9.84	<0.0001	0.00003	<0.0003	<0.00005	0.0127	<0.00005	0.0197	
22-Jul-19	13	500	480																
29-Jul-19	14	500	485																
5-Aug-19	15	500	470																
12-Aug-19	16	500	485	0.000129	0.1010	0.000017	<0.000005	<0.05	0.00007	<0.000005	9.3	0.0003	0.00007	<0.0003	0.000066	0.0729	<0.00005	0.0168	
19-Aug-19	17	500	480																
26-Aug-19	18	500	480																
2-Sep-19	19	500	480																
9-Sep-19	20	500	480	0.000169	0.071	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	9.41	0.0001	0.00002	<0.0003	<0.00005	0.0162	<0.00005	0.0151	
16-Sep-19	21	500	475																
23-Sep-19	22	500	465																
30-Sep-19	23	500	475																
7-Oct-19	24	500	485	0.000083	0.0540	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	10.1	0.0001	0.00003	<0.0003	<0.00005	0.0129	<0.00005	0.0127	
14-Oct-19	25	500	460																
21-Oct-19	26	500	480																
28-Oct-19	27	500	480																
4-Nov-19	28	500	480	0.000111	0.0297	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	11.2	<0.0001	0.00010	<0.0003	<0.00005	0.0131	<0.00005	0.0110	
11-Nov-19	29	500	480																
18-Nov-19	30	500	485																
25-Nov-19	31	500	470																
2-Dec-19	32	500	490	0.000078	0.0350	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	12.1	<0.0001	0.00002	<0.0003	<0.00005	0.0071	<0.00005	0.0123	
9-Dec-19	33	500	475																
16-Dec-19	34	500	495																
23-Dec-19	35	500	480																
30-Dec-19	36	500	485	0.000072	0.0304	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	11.7	<0.0001	0.00002	<0.0003	<0.00005	0.0055	<0.00005	0.0110	
6-Jan-20	37	500	485																
13-Jan-20	38	500	485																
20-Jan-20	39	500	480																

Due to the sample matrix, sample required dilution. Detection limit Phosphorus (P) was adjusted accordingly.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colorimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-13; Sample ID: BH-18-PP12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
RDL			N/A	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025	10	0.00002	
22-Apr-19	0	750	615	5.10	0.0360	0.000012	0.0637	0.0190	0.00129	2.44	0.00230	0.00312	1.27	<0.000005	2.20	0.173	15	<0.00002	
29-Apr-19	1	500	465																
6-May-19	2	500	500																
13-May-19	3	500	495																
20-May-19	4	500	470	3.77	0.0068	<0.00001	0.0102	0.0129	0.00028	1.82	0.00153	0.000747	0.98	<0.000005	1.18	0.118	<10	<0.00002	
27-May-19	5	500	470																
3-Jun-19	6	500	490																
10-Jun-19	7	500	480																
17-Jun-19	8	500	470	3.54	0.0183	<0.00001	0.0256	0.0060	0.00059	1.74	0.00163	0.000350	1.08	<0.000005	0.79	0.099	<10	<0.00002	
24-Jun-19	9	500	465																
1-Jul-19	10	500	465																
8-Jul-19	11	500	475																
15-Jul-19	12	500	475	3.55	0.00447	<0.00001	0.0027	0.00389	<0.0002	1.66	0.00112	0.000244	0.73	<0.000005	0.549	0.0912	<10	<0.00002	
22-Jul-19	13	500	480																
29-Jul-19	14	500	485																
5-Aug-19	15	500	470																
12-Aug-19	16	500	485	3.31	0.00499	<0.00001	0.0089	0.0028	0.00027	1.45	0.00135	0.000246	0.98	<0.000005	0.39	0.085	<10	0.000022	
19-Aug-19	17	500	480																
26-Aug-19	18	500	480																
2-Sep-19	19	500	480																
9-Sep-19	20	500	480	3.53	0.00220	<0.00001	<0.002	0.00233	<0.0002	1.43	0.00102	0.000227	0.69	<0.000005	0.321	0.0877	<10	0.000041	
16-Sep-19	21	500	475																
23-Sep-19	22	500	465																
30-Sep-19	23	500	475																
7-Oct-19	24	500	485	4.01	0.00237	<0.00001	0.0023	0.00193	<0.0002	1.35	0.000980	0.000201	0.55	<0.000005	0.259	0.0925	<10	<0.00002	
14-Oct-19	25	500	460																
21-Oct-19	26	500	480																
28-Oct-19	27	500	480																
4-Nov-19	28	500	480	4.58	0.00281	<0.00001	0.0071	0.00190	0.00024	1.29	0.00100	0.000225	0.57	<0.000005	0.279	0.0991	<10	<0.00002	
11-Nov-19	29	500	480																
18-Nov-19	30	500	485																
25-Nov-19	31	500	470																
2-Dec-19	32	500	490	5.07	0.00199	<0.00001	<0.002	0.00176	<0.0002	1.27	0.000923	0.000258	0.52	<0.000005	0.213	0.1070	<10	<0.00002	
9-Dec-19	33	500	475																
16-Dec-19	34	500	495																
23-Dec-19	35	500	480																
30-Dec-19	36	500	485	4.99	0.00135	<0.00001	<0.002	0.00165	<0.0002	1.18	0.00086	0.000306	0.46	<0.000005	0.197	0.1010	<10	<0.00002	
6-Jan-20	37	500	485																
13-Jan-20	38	500	485																
20-Jan-20	39	500	480																

Due to the sample matrix, sample required dilution. Detection limit Phosphorus (P) was adjusted accordingly.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colorimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-13; Sample ID: BH-18-PP12

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	615	0.000016	0.000244	<0.002	0.00257	0.000016	0.000107	0.00147	0.0040	0.00023
29-Apr-19	1	500	465									
6-May-19	2	500	500									
13-May-19	3	500	495									
20-May-19	4	500	470	0.000009	0.000032	<0.002	0.00149	0.000014	0.000146	0.00072	<0.001	0.00019
27-May-19	5	500	470									
3-Jun-19	6	500	490									
10-Jun-19	7	500	480									
17-Jun-19	8	500	470	0.000012	0.000103	<0.002	0.00378	<0.00001	0.000142	0.00071	0.002	0.00021
24-Jun-19	9	500	465									
1-Jul-19	10	500	465									
8-Jul-19	11	500	475									
15-Jul-19	12	500	475	0.000006	<0.000005	<0.002	0.00081	<0.00001	0.000133	0.00037	<0.001	<0.0001
22-Jul-19	13	500	480									
29-Jul-19	14	500	485									
5-Aug-19	15	500	470									
12-Aug-19	16	500	485	0.000008	0.000025	<0.002	0.00395	<0.00001	0.000133	0.00068	<0.001	0.00046
19-Aug-19	17	500	480									
26-Aug-19	18	500	480									
2-Sep-19	19	500	480									
9-Sep-19	20	500	480	0.000006	<0.000005	<0.002	0.00116	<0.00001	0.000150	0.00040	<0.001	<0.0001
16-Sep-19	21	500	475									
23-Sep-19	22	500	465									
30-Sep-19	23	500	475									
7-Oct-19	24	500	485	0.000005	<0.000005	<0.002	0.00151	<0.00001	0.000152	0.00027	<0.001	<0.0001
14-Oct-19	25	500	460									
21-Oct-19	26	500	480									
28-Oct-19	27	500	480									
4-Nov-19	28	500	480	0.000006	0.000006	<0.002	0.00165	<0.00001	0.000168	0.00028	<0.001	0.00061
11-Nov-19	29	500	480									
18-Nov-19	30	500	485									
25-Nov-19	31	500	470									
2-Dec-19	32	500	490	0.000006	<0.000005	<0.002	0.00071	<0.00001	0.000171	0.00021	<0.001	<0.0001
9-Dec-19	33	500	475									
16-Dec-19	34	500	495									
23-Dec-19	35	500	480									
30-Dec-19	36	500	485	0.000007	<0.000005	<0.002	0.00051	<0.00001	0.000138	<0.0002	<0.001	<0.0001
6-Jan-20	37	500	485									
13-Jan-20	38	500	485									
20-Jan-20	39	500	480									

Due to the sample matrix, sample required dilution. Detection limit Phosphorus (P) was adjusted accordingly.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Hardness : BBY WI-00033
- Anions, Cations, Balance % : Calculation BBY WI-00033
- Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BLANK

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
22-Apr-19	0	750	750	5.88	0.8	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005			<0.003	<0.5	<0.5	<0.003
29-Apr-19	1	500	500	5.89	0.9												
6-May-19	2	500	500	5.88	0.9	<0.5	<0.5										
13-May-19	3	500	500	5.96	0.9												
20-May-19	4	500	500	5.97	0.9	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005			0.770	0.003	<0.5	<0.003
27-May-19	5	500	500	5.96	0.9												
3-Jun-19	6	500	500	6.05	1.0	<0.5	<0.5										
10-Jun-19	7	500	500	5.76	1.1												
17-Jun-19	8	500	500	5.82	1.0	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005			<0.003	0.243	<0.5	<0.003
24-Jun-19	9	500	500	5.94	1.0												
1-Jul-19	10	500	500	5.95	1.0	<0.5	0.6										
8-Jul-19	11	500	500	5.96	<1												
15-Jul-19	12	500	500	5.89	1.0	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005			0.005	0.823	<0.5	<0.003
22-Jul-19	13	500	500	5.94	1.0												
29-Jul-19	14	500	500	5.99	1.0	<0.5	<0.5										
5-Aug-19	15	500	500	5.88	1.0												
12-Aug-19	16	500	500	5.94	1.0	<0.5	<0.5	<0.05	0.6	<0.02	<0.005			<0.003	0.748	<0.5	<0.003
19-Aug-19	17	500	500	5.91	1.0												
26-Aug-19	18	500	495	5.95	1.0	<0.5	<0.5										
2-Sep-19	19	500	500	5.93	1.0												
9-Sep-19	20	500	500	5.88	1.0	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	0.876	<0.5	<0.003
16-Sep-19	21	500	500	5.94	1.1												
23-Sep-19	22	500	500	5.73	1.0	<0.5	<0.5										
30-Sep-19	23	500	495	5.77	1.1												
7-Oct-19	24	500	500	5.99	1.0	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	1.230	<0.5	<0.003
14-Oct-19	25	500	495	5.81	1.0												
21-Oct-19	26	500	500	5.83	1.0	<0.5	<0.5										
28-Oct-19	27	500	500	5.80	1.0												
4-Nov-19	28	500	500	6.03	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	0.870	<0.5	<0.003
11-Nov-19	29	500	500	5.92	<1												
18-Nov-19	30	500	495	5.80	1	<0.5	<0.5										
25-Nov-19	31	500	500	5.65	1												
2-Dec-19	32	500	500	5.84	1.0	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	0.723	<0.5	<0.003
9-Dec-19	33	500	495	5.81	1.0												
16-Dec-19	34	500	500	5.66	1.0	<0.5	<0.5										
23-Dec-19	35	500	500	5.93	<1												
30-Dec-19	36	500	500	5.94	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	0.813	<0.5	<0.003
6-Jan-20	37	500	500	5.79	1												
13-Jan-20	38	500	500	5.98	1	0.6	<0.5					<0.005	<0.005				
20-Jan-20	39	500	500	5.59	1												
27-Jan-20	40	500	500	5.81	<1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.003
3-Feb-20	41	500	500	5.89	1												
10-Feb-20	42	500	500	5.70	1	<0.5	<0.5										
17-Feb-20	43	500	500	5.72	1												
24-Feb-20	44	500	500	5.75	1	<0.5	<0.5	<0.05	<0.5	<0.02	0.009	<0.005		<0.003	<0.5	<0.5	<0.003
2-Mar-20	45	500	500	5.81	1												
9-Mar-20	46	500	500	5.62	1	<0.5	<0.5										
16-Mar-20	47	500	500	5.59	1												
23-Mar-20	48	500	495	5.75	<1	0.9	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.003
30-Mar-20	49	500	500	5.71	<1												
6-Apr-20	50	500	500	5.63	1	<0.5	<0.5										
13-Apr-20	51	500	500	5.80	1												
20-Apr-20	52	500	500	5.79	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	0.006		<0.003	1.0	<0.5	<0.003
27-Apr-20	53	500	495	5.79	<1												
4-May-20	54	500	500	5.65	1	<0.5	<0.5										
11-May-20	55	500	500	5.73	<1												
18-May-20	56	500	500	5.74	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.003
25-May-20	57	500	500	5.84	<1												
1-Jun-20	58	500	500	5.75	<1	<0.5	<0.5										
8-Jun-20	59	500	500	5.73	<1												
15-Jun-20	60	500	500	5.74	<1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	0.006		<0.003	1.0	<0.5	<0.003
22-Jun-20	61	500	500	5.69	<1												
29-Jun-20	62	500	500	5.71	<1	<0.5	<0.5										
6-Jul-20	63	500	500	5.75	<1												



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BLANK

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Total NH4 (ALS)	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg CaCO3/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1.0	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.005	0.003	0.5	0.5	0.003
13-Jul-20	64	500	500	5.77	<1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	0.023		0.005	<0.5	<0.5	<0.0030
20-Jul-20	65	500	500	5.78	1												
27-Jul-20	66	500	500														
3-Aug-20	67	500	500														
10-Aug-20	68	500	500	5.57	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	0.007		0.008	0.7	<0.5	<0.0030
17-Aug-20	69	500	500														
24-Aug-20	70	500	500														
31-Aug-20	71	500	500														
7-Sep-20	72	500	500	5.78	1	<0.5	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.0030
14-Sep-20	73	500	500														
21-Sep-20	74	500	500														
28-Sep-20	75	500	500														
5-Oct-20	76	500	500	5.95	1	0.6	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.0030
12-Oct-20	77	500	500														
19-Oct-20	78	500	500														
26-Oct-20	79	500	500														
2-Nov-20	80	500	500	5.89	1	0.5	<0.5	<0.05	<0.5	<0.02	<0.005	0.012		<0.003	<0.5	<0.5	<0.0030
9-Nov-20	81	500	500														
16-Nov-20	82	500	500														
23-Nov-20	83	500	500														
30-Nov-20	84	500	500	5.88	<1	0.7	<0.5	<0.05	<0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.0030
7-Dec-20	85	500	500														
14-Dec-20	86	500	500														
21-Dec-20	87	500	500														
28-Dec-20	88	500	500	5.70	1	<0.5	<0.5	<0.05	0.5	<0.02	<0.005	<0.005		<0.003	<0.5	<0.5	<0.0030
4-Jan-21	89	500	500														
11-Jan-21	90	500	500														
18-Jan-21	91	500	500														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
22-Apr-19	0	750	750	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	0.0000060	<0.0003	<0.00005	<0.005
29-Apr-19	1	500	500														
6-May-19	2	500	500														
13-May-19	3	500	500														
20-May-19	4	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
27-May-19	5	500	500														
3-Jun-19	6	500	500														
10-Jun-19	7	500	500														
17-Jun-19	8	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	0.0000068	<0.0003	<0.00005	<0.005
24-Jun-19	9	500	500														
1-Jul-19	10	500	500														
8-Jul-19	11	500	500														
15-Jul-19	12	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
22-Jul-19	13	500	500														
29-Jul-19	14	500	500														
5-Aug-19	15	500	500														
12-Aug-19	16	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
19-Aug-19	17	500	500														
26-Aug-19	18	500	495														
2-Sep-19	19	500	500														
9-Sep-19	20	500	500	<0.00002	0.000038	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
16-Sep-19	21	500	500														
23-Sep-19	22	500	500														
30-Sep-19	23	500	495														
7-Oct-19	24	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
14-Oct-19	25	500	495														
21-Oct-19	26	500	500														
28-Oct-19	27	500	500														
4-Nov-19	28	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
11-Nov-19	29	500	500														
18-Nov-19	30	500	495														
25-Nov-19	31	500	500														
2-Dec-19	32	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
9-Dec-19	33	500	495														
16-Dec-19	34	500	500														
23-Dec-19	35	500	500														
30-Dec-19	36	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
6-Jan-20	37	500	500														
13-Jan-20	38	500	500														
20-Jan-20	39	500	500														
27-Jan-20	40	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
3-Feb-20	41	500	500														
10-Feb-20	42	500	500														
17-Feb-20	43	500	500														
24-Feb-20	44	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	0.000005	<0.0003	<0.00005	<0.005
2-Mar-20	45	500	500														
9-Mar-20	46	500	500														
16-Mar-20	47	500	500														
23-Mar-20	48	500	495	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
30-Mar-20	49	500	500														
6-Apr-20	50	500	500														
13-Apr-20	51	500	500														
20-Apr-20	52	500	500	0.000020	0.000021	0.00075	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	0.051	<0.0001	0.000020	<0.0003	<0.00005	<0.005
27-Apr-20	53	500	495														
4-May-20	54	500	500														
11-May-20	55	500	500														
18-May-20	56	500	500	<0.00002	0.000029	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	<0.000005	<0.0003	<0.00005	<0.005
25-May-20	57	500	500														
1-Jun-20	58	500	500														
8-Jun-20	59	500	500														
15-Jun-20	60	500	500	<0.00002	<0.00002	<0.0002	<0.00001	<0.000005	<0.05	<0.00005	<0.000005	<0.05	<0.0001	0.0000075	<0.0003	<0.00005	<0.005
22-Jun-20	61	500	500														
29-Jun-20	62	500	500														
6-Jul-20	63	500	500														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Antimony (Sb) - ICPMS	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005
13-Jul-20	64	500	500	<0.000020	<0.000020	0.00033	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
20-Jul-20	65	500	500														
27-Jul-20	66	500	500														
3-Aug-20	67	500	500														
10-Aug-20	68	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
17-Aug-20	69	500	500														
24-Aug-20	70	500	500														
31-Aug-20	71	500	500														
7-Sep-20	72	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
14-Sep-20	73	500	500														
21-Sep-20	74	500	500														
28-Sep-20	75	500	500														
5-Oct-20	76	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
12-Oct-20	77	500	500														
19-Oct-20	78	500	500														
26-Oct-20	79	500	500														
2-Nov-20	80	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
9-Nov-20	81	500	500														
16-Nov-20	82	500	500														
23-Nov-20	83	500	500														
30-Nov-20	84	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
7-Dec-20	85	500	500														
14-Dec-20	86	500	500														
21-Dec-20	87	500	500														
28-Dec-20	88	500	500	<0.000020	<0.000020	<0.00020	<0.000010	<0.0000050	<0.050	<0.000050	<0.0000050	<0.050	<0.00010	<0.0000050	<0.00030	<0.000050	<0.0050
4-Jan-21	89	500	500														
11-Jan-21	90	500	500														
18-Jan-21	91	500	500														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
22-Apr-19	0	750	750	<0.00005	<0.0005	<0.05	0.00025	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
29-Apr-19	1	500	500														
6-May-19	2	500	500														
13-May-19	3	500	500														
20-May-19	4	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
27-May-19	5	500	500														
3-Jun-19	6	500	500														
10-Jun-19	7	500	500														
17-Jun-19	8	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
24-Jun-19	9	500	500														
1-Jul-19	10	500	500														
8-Jul-19	11	500	500														
15-Jul-19	12	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
22-Jul-19	13	500	500														
29-Jul-19	14	500	500														
5-Aug-19	15	500	500														
12-Aug-19	16	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
19-Aug-19	17	500	500														
26-Aug-19	18	500	495														
2-Sep-19	19	500	500														
9-Sep-19	20	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
16-Sep-19	21	500	500														
23-Sep-19	22	500	500														
30-Sep-19	23	500	495														
7-Oct-19	24	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
14-Oct-19	25	500	495														
21-Oct-19	26	500	500														
28-Oct-19	27	500	500														
4-Nov-19	28	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	0.0026	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
11-Nov-19	29	500	500														
18-Nov-19	30	500	495														
25-Nov-19	31	500	500														
2-Dec-19	32	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
9-Dec-19	33	500	495														
16-Dec-19	34	500	500														
23-Dec-19	35	500	500														
30-Dec-19	36	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
6-Jan-20	37	500	500														
13-Jan-20	38	500	500														
20-Jan-20	39	500	500														
27-Jan-20	40	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
3-Feb-20	41	500	500														
10-Feb-20	42	500	500														
17-Feb-20	43	500	500														
24-Feb-20	44	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	0.005	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
2-Mar-20	45	500	500														
9-Mar-20	46	500	500														
16-Mar-20	47	500	500														
23-Mar-20	48	500	495	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	0.0042	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
30-Mar-20	49	500	500														
6-Apr-20	50	500	500														
13-Apr-20	51	500	500														
20-Apr-20	52	500	500	0.00016	<0.0005	<0.05	<0.0002	<0.00001	0.0024	<0.00005	0.00035	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
27-Apr-20	53	500	495														
4-May-20	54	500	500														
11-May-20	55	500	500														
18-May-20	56	500	500	<0.00005	<0.0005	<0.05	<0.0002	<0.00001	<0.002	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
25-May-20	57	500	500														
1-Jun-20	58	500	500														
8-Jun-20	59	500	500														
15-Jun-20	60	500	500	0.000053	<0.0005	<0.05	<0.0002	<0.00001	0.0035	<0.00005	<0.0002	<0.05	<0.00005	<0.00004	<0.1	<0.000005	<0.05
22-Jun-20	61	500	500														
29-Jun-20	62	500	500														
6-Jul-20	63	500	500														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lead (Pb) - ICPMS	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00005	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05
13-Jul-20	64	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0022	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
20-Jul-20	65	500	500														
27-Jul-20	66	500	500														
3-Aug-20	67	500	500														
10-Aug-20	68	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0029	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
17-Aug-20	69	500	500														
24-Aug-20	70	500	500														
31-Aug-20	71	500	500														
7-Sep-20	72	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	<0.0020	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
14-Sep-20	73	500	500														
21-Sep-20	74	500	500														
28-Sep-20	75	500	500														
5-Oct-20	76	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0030	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
12-Oct-20	77	500	500														
19-Oct-20	78	500	500														
26-Oct-20	79	500	500														
2-Nov-20	80	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0022	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
9-Nov-20	81	500	500														
16-Nov-20	82	500	500														
23-Nov-20	83	500	500														
30-Nov-20	84	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0025	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
7-Dec-20	85	500	500														
14-Dec-20	86	500	500														
21-Dec-20	87	500	500														
28-Dec-20	88	500	500	<0.000050	<0.00050	<0.050	<0.00020	<0.000010	0.0038	<0.000050	<0.00020	<0.050	<0.000050	<0.000040	<0.10	<0.0000050	<0.050
4-Jan-21	89	500	500														
11-Jan-21	90	500	500														
18-Jan-21	91	500	500														

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
22-Apr-19	0	750	750	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
29-Apr-19	1	500	500												
6-May-19	2	500	500												
13-May-19	3	500	500												
20-May-19	4	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
27-May-19	5	500	500												
3-Jun-19	6	500	500												
10-Jun-19	7	500	500												
17-Jun-19	8	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0015	<0.0001
24-Jun-19	9	500	500												
1-Jul-19	10	500	500												
8-Jul-19	11	500	500												
15-Jul-19	12	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
22-Jul-19	13	500	500												
29-Jul-19	14	500	500												
5-Aug-19	15	500	500												
12-Aug-19	16	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
19-Aug-19	17	500	500												
26-Aug-19	18	500	495												
2-Sep-19	19	500	500												
9-Sep-19	20	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
16-Sep-19	21	500	500												
23-Sep-19	22	500	500												
30-Sep-19	23	500	495												
7-Oct-19	24	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
14-Oct-19	25	500	495												
21-Oct-19	26	500	500												
28-Oct-19	27	500	500												
4-Nov-19	28	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0012	<0.0001
11-Nov-19	29	500	500												
18-Nov-19	30	500	495												
25-Nov-19	31	500	500												
2-Dec-19	32	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
9-Dec-19	33	500	495												
16-Dec-19	34	500	500												
23-Dec-19	35	500	500												
30-Dec-19	36	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.004	<0.0001
6-Jan-20	37	500	500												
13-Jan-20	38	500	500												
20-Jan-20	39	500	500												
27-Jan-20	40	500	500	<0.00025	<10	<0.00002	0.0000023	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
3-Feb-20	41	500	500												
10-Feb-20	42	500	500												
17-Feb-20	43	500	500												
24-Feb-20	44	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
2-Mar-20	45	500	500												
9-Mar-20	46	500	500												
16-Mar-20	47	500	500												
23-Mar-20	48	500	495	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
30-Mar-20	49	500	500												
6-Apr-20	50	500	500												
13-Apr-20	51	500	500												
20-Apr-20	52	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0038	<0.0001
27-Apr-20	53	500	495												
4-May-20	54	500	500												
11-May-20	55	500	500												
18-May-20	56	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	<0.001	<0.0001
25-May-20	57	500	500												
1-Jun-20	58	500	500												
8-Jun-20	59	500	500												
15-Jun-20	60	500	500	<0.00025	<10	<0.00002	<0.000002	<0.000005	<0.002	<0.0005	<0.00001	<0.000002	<0.0002	0.0014	<0.0001
22-Jun-20	61	500	500												
29-Jun-20	62	500	500												
6-Jul-20	63	500	500												



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-14 (MB); Sample ID: METHOD BL

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Strontium (Sr) - ICPMS	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00025	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
13-Jul-20	64	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
20-Jul-20	65	500	500												
27-Jul-20	66	500	500												
3-Aug-20	67	500	500												
10-Aug-20	68	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
17-Aug-20	69	500	500												
24-Aug-20	70	500	500												
31-Aug-20	71	500	500												
7-Sep-20	72	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
14-Sep-20	73	500	500												
21-Sep-20	74	500	500												
28-Sep-20	75	500	500												
5-Oct-20	76	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
12-Oct-20	77	500	500												
19-Oct-20	78	500	500												
26-Oct-20	79	500	500												
2-Nov-20	80	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
9-Nov-20	81	500	500												
16-Nov-20	82	500	500												
23-Nov-20	83	500	500												
30-Nov-20	84	500	500	<0.00025	<10	<0.000020	<0.0000020	0.0000094	<0.0020	0.00075	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
7-Dec-20	85	500	500												
14-Dec-20	86	500	500												
21-Dec-20	87	500	500												
28-Dec-20	88	500	500	<0.00025	<10	<0.000020	<0.0000020	<0.0000050	<0.0020	<0.00050	<0.000010	<0.0000020	<0.00020	<0.0010	<0.00010
4-Jan-21	89	500	500												
11-Jan-21	90	500	500												
18-Jan-21	91	500	500												

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Hardness : BBY WI-00033
 Anions, Cations, Balance % : Calculation BBY WI-00033
 Dissolved Metals : Dissolved Metals by ICP-MS ; BBY7SOP-00002
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM SOUTH REJECT

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
14-Oct-19	0	750	595	7.82	298	306	30.6	0.48	2.3	0.71	0.068	0.287	<0.003	0.830	330	<0.003	0.00587
21-Oct-19	1	500	500	7.82	298												
28-Oct-19	2	500	470	7.92	255	69	66.0										
4-Nov-19	3	500	475	7.93	248												
11-Nov-19	4	500	490	7.88	198	29	58.1	0.43	1.6	1.93	0.066	0.016	0.011	1.0	87.8	0.0190	0.00821
18-Nov-19	5	500	480	7.75	167												
25-Nov-19	6	500	480	7.77	170	27	51.0										
2-Dec-19	7	500	480	7.86	158												
9-Dec-19	8	500	490	7.83	126	17	39.2	0.29	<0.5	0.53	0.022	0.053	<0.015	<0.5	56.5	0.0544	0.00456
16-Dec-19	9	500	495	7.55	120												
23-Dec-19	10	500	485	7.67	138	21	42.2										
30-Dec-19	11	500	485	7.71	112												
6-Jan-20	12	500	495	7.47	112	15.9	34.3	0.24	0.7	0.28	0.010	0.015	<0.003	<0.5	50.4	0.0210	0.00356
13-Jan-20	13	500	480	7.78	123												
20-Jan-20	14	500	495	7.33	81	15.0	22.6										
27-Jan-20	15	500	485	7.67	126												
3-Feb-20	16	500	500	7.49	94	15	28.5	0.16	0.6	0.20	0.006	0.010	<0.003	<0.5	42.9	0.0450	0.00268
10-Feb-20	17	500	470	7.64	100												
17-Feb-20	18	500	495	7.63	113	21	31.4										
24-Feb-20	19	500	480	7.50	121												
2-Mar-20	20	500	470	7.57	123	28	27.9	0.15	0.5	0.12	<0.005	0.009	<0.003	<0.5	54.1	0.0410	0.00309
9-Mar-20	21	500	475	7.59	118												
16-Mar-20	22	500	475	7.45	129	30	30.6										
23-Mar-20	23	500	480	7.75	148												
30-Mar-20	24	500	475	7.70	137	25	39.8	0.20	<0.5	0.13	<0.005	0.049	<0.003	<0.5	64.3	0.0987	0.00300
6-Apr-20	25	500	475	7.76	98												
13-Apr-20	26	500	480	7.66	105	20	28.1										
20-Apr-20	27	500	485	7.71	131												
27-Apr-20	28	500	485	7.78	97	16	29.4	0.13	<0.5	0.10	<0.005	0.011	<0.003	1.2	44.5	0.0509	0.00178
4-May-20	29	500	480	7.75	110												
11-May-20	30	500	480	7.82	108	19	36.3										
18-May-20	31	500	485	7.81	135												
25-May-20	32	500	480	7.59	101	14	32.7	0.12	<0.5	0.08	<0.005	<0.005	<0.003	<0.5	44.8	0.0224	0.00163
1-Jun-20	33	500	475	7.65	91												
8-Jun-20	34	500	480	7.63	96	15	31.6										
15-Jun-20	35	500	450	7.63	105												
22-Jun-20	36	500	490	7.83	121	15	44.1	0.18	<0.5	0.12	<0.005	<0.005	0.003	1.2	57.8	0.0281	0.00184
29-Jun-20	37	500	470	7.73	113												
6-Jul-20	38	500	470	7.77	98	12	33.3										
13-Jul-20	39	500	480	7.49	94												
20-Jul-20	40	500	485	7.48	90	9	32.3	0.10	<0.5	0.06	<0.005	0.011	<0.003	<0.5	42.5	0.0426	0.00111
27-Jul-20	41	500	480														
3-Aug-20	42	500	460														
10-Aug-20	43	500	500														
17-Aug-20	44	500	495	7.98	130	13	43.9	0.15	<0.5	0.10	<0.005	0.010	<0.003	<0.5	59.8	0.0290	0.00157
24-Aug-20	45	500	430														
31-Aug-20	46	500	460														
7-Sep-20	47	500	450														
14-Sep-20	48	500	455	7.72	101	16	24.1	0.10	<0.5	0.08	<0.005	0.076	0.006	1.5	38.2	0.0456	0.000868
21-Sep-20	49	500	445														
28-Sep-20	50	500	450														
5-Oct-20	51	500	485														
12-Oct-20	52	500	460	7.13	114	15	42.8	0.11	<0.5	0.07	<0.005	0.019	<0.003	<0.5	52.1	0.0146	0.000957
19-Oct-20	53	500	485														
26-Oct-20	54	500	450														
2-Nov-20	55	500	495														
9-Nov-20	56	500	450	7.49	93	13	34.4	0.10	<0.5	0.08	<0.005	0.07	<0.003	1.7	43.3	0.0951	0.000785
16-Nov-20	57	500	485														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	470	7.37	50	7	10.8	<0.05	<0.5	0.03	<0.005	0.018	<0.003	0.62	20.4	0.0228	0.000391
14-Dec-20	61	500	490														
21-Dec-20	62	500	475														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM SOUTH REJECT

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
28-Dec-20	63	500	450														
4-Jan-21	64	500	495	7.38	71	9	23.3	0.07	<0.5	0.05	<0.005	0.037	0.008	1.9	30.9		0.000480
11-Jan-21	65	500	495														
18-Jan-21	66	500	495														

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
14-Oct-19	0	750	595	0.000527	0.0348	<0.00001	<0.000005	0.086	0.000086	0.00104	85.2	<0.0001	0.0150	0.00226	<0.00005	<0.005	0.000244
21-Oct-19	1	500	500														
28-Oct-19	2	500	470														
4-Nov-19	3	500	475														
11-Nov-19	4	500	490	0.000817	0.0724	<0.00001	<0.000005	0.070	<0.00005	0.000269	22.3	<0.0001	0.00356	0.00048	<0.00005	<0.005	0.000186
18-Nov-19	5	500	480														
25-Nov-19	6	500	480														
2-Dec-19	7	500	480														
9-Dec-19	8	500	490	0.000425	0.0742	<0.00001	<0.000005	<0.05	<0.00005	0.000161	14.2	<0.0001	0.00133	0.00031	<0.00005	<0.005	0.000114
16-Dec-19	9	500	495														
23-Dec-19	10	500	485														
30-Dec-19	11	500	485														
6-Jan-20	12	500	495	0.000310	0.0705	<0.00001	<0.000005	<0.05	<0.00005	0.000144	12.6	<0.0001	0.000849	<0.0003	<0.00005	<0.005	0.000062
13-Jan-20	13	500	480														
20-Jan-20	14	500	495														
27-Jan-20	15	500	485														
3-Feb-20	16	500	500	0.000266	0.0575	<0.00001	<0.000005	<0.05	<0.00005	0.000146	10.6	<0.0001	0.00050	<0.0003	<0.00005	<0.005	0.000063
10-Feb-20	17	500	470														
17-Feb-20	18	500	495														
24-Feb-20	19	500	480														
2-Mar-20	20	500	470	0.000350	0.0510	<0.00001	<0.000005	<0.05	<0.00005	0.000154	13.2	<0.0001	0.000302	<0.0003	<0.00005	<0.005	0.000053
9-Mar-20	21	500	475														
16-Mar-20	22	500	475														
23-Mar-20	23	500	480														
30-Mar-20	24	500	475	0.000323	0.0514	<0.00001	<0.000005	<0.05	<0.00005	0.000227	15.9	<0.0001	0.000278	0.00032	<0.00005	0.006	0.000093
6-Apr-20	25	500	475														
13-Apr-20	26	500	480														
20-Apr-20	27	500	485														
27-Apr-20	28	500	485	0.000250	0.0439	<0.00001	<0.000005	<0.05	<0.00005	0.000157	10.5	<0.0001	0.000204	0.00031	<0.00005	<0.005	0.000114
4-May-20	29	500	480														
11-May-20	30	500	480														
18-May-20	31	500	485														
25-May-20	32	500	480	0.000429	0.0450	<0.00001	<0.000005	<0.05	<0.00005	0.000160	10.7	<0.0001	0.000134	<0.0003	<0.00005	<0.005	<0.00005
1-Jun-20	33	500	475														
8-Jun-20	34	500	480														
15-Jun-20	35	500	450														
22-Jun-20	36	500	490	0.000222	0.0712	<0.00001	<0.000005	<0.05	<0.00005	0.000224	13.9	<0.0001	0.000127	0.00050	<0.00005	<0.005	0.000063
29-Jun-20	37	500	470														
6-Jul-20	38	500	470														
13-Jul-20	39	500	480														
20-Jul-20	40	500	485	0.000147	0.0540	<0.000010	<0.0000050	<0.050	<0.000050	0.000187	9.75	<0.00010	0.000135	<0.00030	<0.000050	<0.0050	<0.000050
27-Jul-20	41	500	480														
3-Aug-20	42	500	460														
10-Aug-20	43	500	500														
17-Aug-20	44	500	495	0.000266	0.0815	<0.000010	<0.0000050	<0.050	<0.000050	0.000827	13.8	<0.00010	0.0000719	0.00054	<0.000050	<0.0050	<0.000050
24-Aug-20	45	500	430														
31-Aug-20	46	500	460														
7-Sep-20	47	500	450														
14-Sep-20	48	500	455	0.000121	0.0746	<0.000010	<0.0000050	<0.050	<0.000050	0.000473	8.44	<0.00010	0.0000518	0.00031	<0.000050	<0.0050	<0.000050
21-Sep-20	49	500	445														
28-Sep-20	50	500	450														
5-Oct-20	51	500	485														
12-Oct-20	52	500	460	0.000116	0.106	<0.000010	<0.0000050	<0.050	<0.000050	0.000361	10.8	<0.00010	0.0000329	0.00055	<0.000050	<0.0050	<0.000050
19-Oct-20	53	500	485														
26-Oct-20	54	500	450														
2-Nov-20	55	500	495														
9-Nov-20	56	500	450	0.000084	0.0818	<0.000010	<0.0000050	<0.050	<0.000050	0.000314	9.17	<0.00010	0.0000610	0.00039	<0.000050	0.0077	0.000058
16-Nov-20	57	500	485														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	470	0.000086	0.0362	<0.000010	<0.0000050	<0.050	<0.000050	0.000204	4.30	<0.00010	0.000100	0.0011	<0.000050	<0.0050	<0.000050
14-Dec-20	61	500	490														
21-Dec-20	62	500	475														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
28-Dec-20	63	500	450														
4-Jan-21	64	500	495	0.000370	0.0506	<0.000010	<0.0000050	<0.050	<0.000050	0.000177	6.37	0.00016	0.0000787	0.00101	<0.000050		0.000064
11-Jan-21	65	500	495														
18-Jan-21	66	500	495														

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
14-Oct-19	0	750	595	0.0774	28.5	0.123	<0.00001	<0.002	0.0190	0.0318	3.11	0.00379	0.152	1.34	0.0000053	21.6	0.115
21-Oct-19	1	500	500														
28-Oct-19	2	500	470														
4-Nov-19	3	500	475														
11-Nov-19	4	500	490	0.0338	7.84	0.0246	<0.00001	<0.002	0.0142	0.0104	1.56	0.00112	0.00423	1.46	<0.000005	4.64	0.0708
18-Nov-19	5	500	480														
25-Nov-19	6	500	480														
2-Dec-19	7	500	480														
9-Dec-19	8	500	490	0.0184	5.11	0.0113	<0.00001	0.004	0.0082	0.0048	1.14	0.00083	0.00283	0.99	<0.000005	1.46	0.0500
16-Dec-19	9	500	495														
23-Dec-19	10	500	485														
30-Dec-19	11	500	485														
6-Jan-20	12	500	495	0.0140	4.60	0.00911	<0.00001	<0.002	0.00605	0.00412	0.987	0.000737	0.00284	0.78	<0.000005	0.788	0.0463
13-Jan-20	13	500	480														
20-Jan-20	14	500	495														
27-Jan-20	15	500	485														
3-Feb-20	16	500	500	0.0126	3.96	0.0054	<0.00001	0.003	0.0040	0.0035	0.81	0.00059	0.00250	0.70	<0.000005	0.45	0.0390
10-Feb-20	17	500	470														
17-Feb-20	18	500	495														
24-Feb-20	19	500	480														
2-Mar-20	20	500	470	0.0131	5.11	0.00219	<0.00001	0.0039	0.00403	0.00350	0.817	0.000576	0.00547	0.69	<0.000005	0.399	0.0447
9-Mar-20	21	500	475														
16-Mar-20	22	500	475														
23-Mar-20	23	500	480														
30-Mar-20	24	500	475	0.0159	5.99	0.00179	<0.00001	0.0045	0.00352	0.00431	1.03	0.000754	0.00510	0.99	<0.000005	0.465	0.0508
6-Apr-20	25	500	475														
13-Apr-20	26	500	480														
20-Apr-20	27	500	485														
27-Apr-20	28	500	485	0.0105	4.48	0.00169	<0.00001	0.0022	0.00210	0.00328	0.761	0.000576	0.00405	0.59	<0.000005	0.264	0.0358
4-May-20	29	500	480														
11-May-20	30	500	480														
18-May-20	31	500	485														
25-May-20	32	500	480	0.0098	4.37	0.00137	<0.00001	0.0033	0.00174	0.00329	0.808	0.000604	0.00290	0.60	<0.000005	0.223	0.0345
1-Jun-20	33	500	475														
8-Jun-20	34	500	480														
15-Jun-20	35	500	450														
22-Jun-20	36	500	490	0.0133	5.59	0.00115	<0.00001	0.0065	0.00170	0.00456	0.961	0.000714	0.00360	0.76	<0.000005	0.269	0.0470
29-Jun-20	37	500	470														
6-Jul-20	38	500	470														
13-Jul-20	39	500	480														
20-Jul-20	40	500	485	0.00848	4.42	0.00228	<0.000010	<0.0020	0.000978	0.00340	0.794	0.000571	0.00292	0.50	<0.0000050	0.188	0.0322
27-Jul-20	41	500	480														
3-Aug-20	42	500	460														
10-Aug-20	43	500	500														
17-Aug-20	44	500	495	0.0125	6.16	0.00116	<0.000010	0.007	0.00135	0.00410	1.03	0.000674	0.00424	0.74	<0.0000050	0.246	0.0455
24-Aug-20	45	500	430														
31-Aug-20	46	500	460														
7-Sep-20	47	500	450														
14-Sep-20	48	500	455	0.00736	4.16	0.00135	<0.000010	0.005	0.000736	0.00399	0.645	0.000585	0.00442	0.49	<0.0000050	0.148	0.0294
21-Sep-20	49	500	445														
28-Sep-20	50	500	450														
5-Oct-20	51	500	485														
12-Oct-20	52	500	460	0.0117	6.12	0.00131	<0.000010	0.005	0.000608	0.00515	0.810	0.000582	0.00468	0.68	<0.0000050	0.192	0.0414
19-Oct-20	53	500	485														
26-Oct-20	54	500	450														
2-Nov-20	55	500	495														
9-Nov-20	56	500	450	0.00951	4.96	0.00245	<0.000010	0.013	0.000458	0.00348	0.831	0.000765	0.00427	0.77	<0.0000050	0.189	0.0337
16-Nov-20	57	500	485														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	470	0.00461	2.34	0.00190	<0.000010	0.007	0.000308	0.00209	0.421	0.000368	0.00295	0.30	<0.0000050	0.080	0.0144
14-Dec-20	61	500	490														
21-Dec-20	62	500	475														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
28-Dec-20	63	500	450														
4-Jan-21	64	500	495	0.00666	3.65	0.00135	<0.000010		0.000369	0.00221	0.630	0.000733	0.00287	0.59	<0.0000050	0.135	0.0223
11-Jan-21	65	500	495														
18-Jan-21	66	500	495														

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
14-Oct-19	0	750	595	113	<0.00002	0.0000439	<0.000005	<0.002	<0.0005	0.000048	0.000272	<0.0002	0.0307	<0.0001
21-Oct-19	1	500	500											
28-Oct-19	2	500	470											
4-Nov-19	3	500	475											
11-Nov-19	4	500	490	<10	<0.00002	0.0000101	<0.000005	<0.002	<0.0005	0.000054	0.000572	<0.0002	0.0108	<0.0001
18-Nov-19	5	500	480											
25-Nov-19	6	500	480											
2-Dec-19	7	500	480											
9-Dec-19	8	500	490	<10	0.000029	0.0000097	<0.000005	<0.002	0.0010	0.000036	0.000262	0.00024	0.0063	<0.0001
16-Dec-19	9	500	495											
23-Dec-19	10	500	485											
30-Dec-19	11	500	485											
6-Jan-20	12	500	495	<10	<0.00002	0.0000066	<0.000005	<0.002	0.0005	0.000033	0.000213	<0.0002	0.0078	<0.0001
13-Jan-20	13	500	480											
20-Jan-20	14	500	495											
27-Jan-20	15	500	485											
3-Feb-20	16	500	500	<10	<0.00002	0.0000059	<0.000005	<0.002	0.0007	0.000022	0.000138	<0.0002	0.0064	<0.0001
10-Feb-20	17	500	470											
17-Feb-20	18	500	495											
24-Feb-20	19	500	480											
2-Mar-20	20	500	470	<10	<0.00002	0.0000070	0.0000060	<0.002	<0.0005	0.000039	0.000167	<0.0002	0.0061	<0.0001
9-Mar-20	21	500	475											
16-Mar-20	22	500	475											
23-Mar-20	23	500	480											
30-Mar-20	24	500	475	<10	<0.00002	0.0000058	0.0000092	<0.002	0.0022	0.000027	0.000233	<0.0002	0.0083	0.00011
6-Apr-20	25	500	475											
13-Apr-20	26	500	480											
20-Apr-20	27	500	485											
27-Apr-20	28	500	485	<10	0.000024	0.0000062	<0.000005	<0.002	0.00113	0.000020	0.000132	0.00021	0.0075	<0.0001
4-May-20	29	500	480											
11-May-20	30	500	480											
18-May-20	31	500	485											
25-May-20	32	500	480	<10	<0.00002	0.0000071	<0.000005	<0.002	0.00077	0.000016	0.000116	0.00024	0.0085	<0.0001
1-Jun-20	33	500	475											
8-Jun-20	34	500	480											
15-Jun-20	35	500	450											
22-Jun-20	36	500	490	<10	<0.00002	0.0000070	0.0000074	<0.002	0.00087	0.000012	0.000116	0.00021	0.0120	<0.0001
29-Jun-20	37	500	470											
6-Jul-20	38	500	470											
13-Jul-20	39	500	480											
20-Jul-20	40	500	485	<10	<0.000020	0.0000052	<0.0000050	<0.0020	0.00075	<0.000010	0.0000716	<0.00020	0.0099	<0.00010
27-Jul-20	41	500	480											
3-Aug-20	42	500	460											
10-Aug-20	43	500	500											
17-Aug-20	44	500	495	<10	<0.000020	0.0000059	<0.0000050	<0.0020	<0.00050	0.000013	0.000120	<0.00020	0.0069	<0.00010
24-Aug-20	45	500	430											
31-Aug-20	46	500	460											
7-Sep-20	47	500	450											
14-Sep-20	48	500	455	<10	<0.000020	0.0000060	<0.0000050	<0.0020	<0.00050	<0.000010	0.0000125	<0.00020	0.0070	<0.00010
21-Sep-20	49	500	445											
28-Sep-20	50	500	450											
5-Oct-20	51	500	485											
12-Oct-20	52	500	460	<10	<0.000020	0.0000045	<0.0000050	<0.0020	<0.00050	<0.000010	0.0000383	<0.00020	0.0126	<0.00010
19-Oct-20	53	500	485											
26-Oct-20	54	500	450											
2-Nov-20	55	500	495											
9-Nov-20	56	500	450	<10	<0.000020	0.0000089	<0.0000050	<0.0020	<0.00050	<0.000010	0.0000236	<0.00020	0.0086	<0.00010
16-Nov-20	57	500	485											
23-Nov-20	58	500	495											
30-Nov-20	59	500	460											
7-Dec-20	60	500	470	<10	<0.000020	0.0000054	0.0000247	<0.0020	<0.00050	0.000024	0.0000068	<0.00020	0.0096	<0.00010
14-Dec-20	61	500	490											
21-Dec-20	62	500	475											



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-15 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
28-Dec-20	63	500	450											
4-Jan-21	64	500	495	<10	<0.000020	0.0000092	0.0000056	<0.0020		<0.000010	0.0000106	0.00028	0.0074	<0.00010
11-Jan-21	65	500	495											
18-Jan-21	66	500	495											

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM NORTH REJECT

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	N/A	1	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
14-Oct-19	0	750	590	7.74	383	212	6.9	0.14	2.6	0.48	<0.005	0.185	<0.003	1.094	190	<0.003	0.00216
21-Oct-19	1	500	490	7.74	383												
28-Oct-19	2	500	495	7.59	229	78	34.3										
4-Nov-19	3	500	455	7.65	201												
11-Nov-19	4	500	440	7.60	154	45	16.2	0.25	0.6	0.70	0.018	0.072	0.072	1.285	54.5	0.0475	0.00235
18-Nov-19	5	500	440	7.60	152												
25-Nov-19	6	500	440	7.49	170	41	26.9										
2-Dec-19	7	500	465	7.84	185												
9-Dec-19	8	500	490	7.92	180	33	51.3	0.28	0.6	0.40	<0.005	0.010	<0.003	<0.5	75.7	0.0566	0.00377
16-Dec-19	9	500	455	7.69	140												
23-Dec-19	10	500	485	7.62	160	27	46.5										
30-Dec-19	11	500	475	7.76	134												
6-Jan-20	12	500	485	7.59	151	22	49.2	0.25	0.9	0.13	<0.005	0.009	<0.003	0.6	67.1	0.0618	0.00248
13-Jan-20	13	500	495	7.63	131												
20-Jan-20	14	500	470	7.43	146	21	52.3										
27-Jan-20	15	500	495	7.51	120												
3-Feb-20	16	500	495	7.55	122	15	44.8	0.18	0.5	0.10	<0.005	0.011	<0.003	<0.5	58.1	0.0238	0.00155
10-Feb-20	17	500	460	7.73	76												
17-Feb-20	18	500	445	7.76	124	17	42.0										
24-Feb-20	19	500	500	7.52	105												
2-Mar-20	20	500	495	7.59	99	12	35.3	0.13	<0.5	0.03	<0.005	0.009	<0.003	<0.5	46.7	0.0377	0.00102
9-Mar-20	21	500	475	7.70	84												
16-Mar-20	22	500	475	7.51	87	13	30.0										
23-Mar-20	23	500	475	7.73	148												
30-Mar-20	24	500	475	7.75	115	13	44.6	0.23	<0.5	0.05	<0.005	0.075	<0.003	0.9	56.3	0.0416	0.00117
6-Apr-20	25	500	490	7.80	94												
13-Apr-20	26	500	485	7.81	90	10	30.8										
20-Apr-20	27	500	485	7.70	89												
27-Apr-20	28	500	485	7.87	89	10	32.5	0.15	<0.5	0.03	<0.005	0.013	<0.003	0.6	41.0	0.0244	0.000660
4-May-20	29	500	485	7.88	101												
11-May-20	30	500	480	7.85	94	11	35.6										
18-May-20	31	500	480	7.67	108												
25-May-20	32	500	465	7.69	87	9	32.4	0.13	<0.5	0.02	<0.005	<0.005	<0.003	<0.5	38.8	0.0186	0.000562
1-Jun-20	33	500	475	7.83	100												
8-Jun-20	34	500	485	7.84	89	10	33.2										
15-Jun-20	35	500	470	7.85	104												
22-Jun-20	36	500	450	7.89	119	9	40.4	0.17	<0.5	0.03	<0.005	<0.005	<0.003	1.4	55.8	0.0128	0.000733
29-Jun-20	37	500	495	7.87	105												
6-Jul-20	38	500	480	7.84	92	8	36.2										
13-Jul-20	39	500	455	7.76	114												
20-Jul-20	40	500	495	7.73	114	8	51.0	0.13	0.6	<0.02	<0.005	0.007	<0.003	<0.5	55.3	0.0140	0.000546
27-Jul-20	41	500	480														
3-Aug-20	42	500	480														
10-Aug-20	43	500	475														
17-Aug-20	44	500	475	7.87	105	12	41.0	0.14	<0.5	0.03	<0.005	<0.005	0.004	0.6	51.5	0.0147	0.000474
24-Aug-20	45	500	480														
31-Aug-20	46	500	490														
7-Sep-20	47	500	470														
14-Sep-20	48	500	470	7.84	103	8	42.1	0.13	<0.5	0.02	<0.005	<0.005	<0.003	<0.5	46.9	0.0118	0.000460
21-Sep-20	49	500	480														
28-Sep-20	50	500	480														
5-Oct-20	51	500	480														
12-Oct-20	52	500	480	7.83	89	8	36.9	0.10	0.9	<0.02	<0.005	<0.005	<0.003	<0.5	42.4	0.0114	0.000327
19-Oct-20	53	500	475														
26-Oct-20	54	500	470														
2-Nov-20	55	500	485														
9-Nov-20	56	500	485	7.85	96	7	41.2	0.12	<0.5	<0.02	0.006	0.013	<0.003	0.7	47.6	0.0202	0.000348
16-Nov-20	57	500	470														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	495	7.79	126	8	59.0	0.11	<0.5	0.03	<0.005	<0.005	<0.003	0.9	62.3	0.0181	0.000417
14-Dec-20	61	500	495														
21-Dec-20	62	500	495														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM NORTH REJECT

Sampling Date	Week No.	Input Volume	Output Volume	pH	EC	SO4	Total Alkalinity	Fluoride	Dissolved Chloride	Nitrate-N	Nitrite-N	Total NH4	Diss.-P	Dissolved Organic Carbon	Hardness CaCO3	Dissolved Aluminum (Al) - ICPMS	Dissolved Antimony (Sb) - ICPMS
UNITS		mL	mL	pH Units	uS/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	N/A	1	0.5	0.5	0.05	0.5	0.02	0.005	0.005	0.003	0.5	0.5	0.003	0.00002
28-Dec-20	63	500	455														
4-Jan-21	64	500	485	7.81	106	7	48.6	0.10	<0.5	0.02	<0.005	<0.005	<0.003	<0.5	53.9	0.0271	0.000332
11-Jan-21	65	500	490														
18-Jan-21	66	500	460														

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A	N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
14-Oct-19	0	750	590	0.000140	0.0368	0.000015	<0.000005	0.060	0.000055	0.00109	50.4	<0.0001	0.0212	0.00092	<0.00005	<0.005	<0.00005
21-Oct-19	1	500	490														
28-Oct-19	2	500	495														
4-Nov-19	3	500	455														
11-Nov-19	4	500	440	0.000297	0.0498	<0.00001	<0.000005	<0.05	<0.00005	0.000112	13.7	<0.0001	0.00186	0.0004	<0.00005	0.0083	0.000112
18-Nov-19	5	500	440														
25-Nov-19	6	500	440														
2-Dec-19	7	500	465														
9-Dec-19	8	500	490	0.000260	0.0623	<0.00001	<0.000005	0.052	<0.00005	0.000156	18.2	<0.0001	0.00199	0.0004	<0.00005	<0.005	0.000095
16-Dec-19	9	500	455														
23-Dec-19	10	500	485														
30-Dec-19	11	500	475														
6-Jan-20	12	500	485	0.000236	0.0707	<0.00001	<0.000005	<0.05	<0.00005	0.000147	15.7	<0.0001	0.00117	0.0004	<0.00005	<0.005	0.000082
13-Jan-20	13	500	495														
20-Jan-20	14	500	470														
27-Jan-20	15	500	495														
3-Feb-20	16	500	495	0.000192	0.0787	<0.00001	<0.000005	<0.05	<0.00005	0.000135	13.4	<0.0001	0.00059	0.0003	<0.00005	<0.005	<0.00005
10-Feb-20	17	500	460														
17-Feb-20	18	500	445														
24-Feb-20	19	500	500														
2-Mar-20	20	500	495	0.000146	0.0611	<0.00001	<0.000005	<0.05	<0.00005	0.000079	10.3	<0.0001	0.00019	<0.0003	<0.00005	<0.005	<0.00005
9-Mar-20	21	500	475														
16-Mar-20	22	500	475														
23-Mar-20	23	500	475														
30-Mar-20	24	500	475	0.000173	0.0685	<0.00001	<0.000005	<0.05	<0.00005	0.0000698	12.3	<0.0001	0.000156	<0.0003	<0.00005	<0.005	0.000073
6-Apr-20	25	500	490														
13-Apr-20	26	500	485														
20-Apr-20	27	500	485														
27-Apr-20	28	500	485	0.000222	0.0497	<0.00001	<0.000005	<0.05	<0.00005	0.0000513	8.69	<0.0001	0.000105	<0.0003	<0.00005	<0.005	<0.00005
4-May-20	29	500	485														
11-May-20	30	500	480														
18-May-20	31	500	480														
25-May-20	32	500	465	0.000105	0.0488	<0.00001	<0.000005	<0.05	<0.00005	0.0000581	8.06	<0.0001	0.00011	0.0021	<0.00005	<0.005	0.000056
1-Jun-20	33	500	475														
8-Jun-20	34	500	485														
15-Jun-20	35	500	470														
22-Jun-20	36	500	450	0.000085	0.0770	<0.00001	<0.000005	<0.05	<0.00005	0.0000884	11.6	<0.0001	0.00011	0.0003	<0.00005	<0.005	<0.00005
29-Jun-20	37	500	495														
6-Jul-20	38	500	480														
13-Jul-20	39	500	455														
20-Jul-20	40	500	495	0.000107	0.0893	<0.000010	<0.0000050	<0.050	<0.000050	0.000104	11.0	<0.00010	0.00010	<0.00030	<0.000050	<0.0050	<0.000050
27-Jul-20	41	500	480														
3-Aug-20	42	500	480														
10-Aug-20	43	500	475														
17-Aug-20	44	500	475	0.000120	0.0714	<0.000010	<0.0000050	<0.050	<0.000050	0.0000681	10.5	<0.00010	0.00011	0.0004	<0.000050	<0.0050	<0.000050
24-Aug-20	45	500	480														
31-Aug-20	46	500	490														
7-Sep-20	47	500	470														
14-Sep-20	48	500	470	0.000101	0.071	<0.000010	<0.0000050	<0.050	<0.000050	0.000079	9.07	<0.00010	0.00010	0.0016	<0.000050	<0.0050	<0.000050
21-Sep-20	49	500	480														
28-Sep-20	50	500	480														
5-Oct-20	51	500	480														
12-Oct-20	52	500	480	0.000054	0.060	<0.000010	<0.0000050	<0.050	<0.000050	0.000066	7.64	<0.00010	0.00006	<0.00030	<0.000050	<0.0050	<0.000050
19-Oct-20	53	500	475														
26-Oct-20	54	500	470														
2-Nov-20	55	500	485														
9-Nov-20	56	500	485	0.000029	0.074	<0.000010	<0.0000050	<0.050	<0.000050	0.000074	8.80	<0.00010	0.00006	<0.00030	<0.000050	<0.0050	<0.000050
16-Nov-20	57	500	470														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	495	0.000089	0.107	<0.000010	<0.0000050	<0.050	<0.000050	0.00011	11.8	<0.00010	0.00011	0.00048	<0.000050	<0.0050	<0.000050
14-Dec-20	61	500	495														
21-Dec-20	62	500	495														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Arsenic (As) - ICPMS	Dissolved Barium (Ba) - ICPMS	Dissolved Beryllium (Be) - ICPMS	Dissolved Bismuth (Bi) - ICPMS	Dissolved Boron (B) - ICPMS	Dissolved Cesium (Cs) - ICPMS	Dissolved Cadmium (Cd) - ICPMS	Dissolved Calcium (Ca) - ICPMS	Dissolved Chromium (Cr) - ICPMS	Dissolved Cobalt (Co) - ICPMS	Dissolved Copper (Cu) - ICPMS	Dissolved Lanthanum (La) - ICPMS	Dissolved Iron (Fe) - ICPMS	Dissolved Lead (Pb) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.00002	0.0002	0.00001	0.000005	0.05	0.00005	0.000005	0.05	0.0001	0.000005	0.0003	0.00005	0.005	0.00005
28-Dec-20	63	500	455														
4-Jan-21	64	500	485	0.000050	0.0844	<0.000010	<0.0000050	<0.050	<0.000050	0.000259	9.74	<0.00010	0.0000606	0.00053	<0.000050	<0.0050	<0.000050
11-Jan-21	65	500	490														
18-Jan-21	66	500	460														

Detection limits raised due to dilution to bring analyte within the calibrated range.

SO4

Methods:

- Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
- Chloride : Ion Chromatography ; BBY6SOP-00011
- EC : EC Meter ; BBY0SOP-00006
- Fluoride : Selective Ion Electrode ; BBY6SOP-00048
- Nitrite (NO2) by Colourimetry ; BBY6SOP-00010
- Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
- Calculated parameter based on the concentration of Nitrate plus Nitrite(NO2+NO3) minus Nitrite(NO2)
- pH : pH Meter ; BBY0SOP-00003
- Sulphate : Auto Turbidity ; BBY6SOP-00017
- Total NH4: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
14-Oct-19	0	750	590	0.0534	15.5	0.173	<0.00001	0.0027	0.00313	0.0395	2.32	0.00301	0.0558	0.82	<0.000005	20.7	0.108
21-Oct-19	1	500	490														
28-Oct-19	2	500	495														
4-Nov-19	3	500	455														
11-Nov-19	4	500	440	0.0226	4.92	0.0252	<0.00001	0.0020	0.00725	0.00336	1.31	0.00151	0.00698	0.73	<0.000005	7.20	0.0408
18-Nov-19	5	500	440														
25-Nov-19	6	500	440														
2-Dec-19	7	500	465														
9-Dec-19	8	500	490	0.0278	7.37	0.0121	<0.00001	0.0026	0.00812	0.00541	1.45	0.00118	0.00486	1.13	<0.000005	4.33	0.0616
16-Dec-19	9	500	455														
23-Dec-19	10	500	485														
30-Dec-19	11	500	475														
6-Jan-20	12	500	485	0.0186	6.78	0.00599	<0.00001	<0.002	0.00494	0.00454	1.39	0.00102	0.00441	0.89	<0.000005	1.59	0.0626
13-Jan-20	13	500	495														
20-Jan-20	14	500	470														
27-Jan-20	15	500	495														
3-Feb-20	16	500	495	0.0151	6.00	0.0036	<0.00001	0.0047	0.00311	0.00357	1.14	0.00091	0.00323	0.65	<0.000005	0.76	0.0548
10-Feb-20	17	500	460														
17-Feb-20	18	500	445														
24-Feb-20	19	500	500														
2-Mar-20	20	500	495	0.0109	5.11	0.00119	<0.00001	0.0037	0.00232	0.00206	0.90	0.00072	0.00398	0.48	<0.000005	0.42	0.0418
9-Mar-20	21	500	475														
16-Mar-20	22	500	475														
23-Mar-20	23	500	475														
30-Mar-20	24	500	475	0.0127	6.20	0.00094	<0.00001	0.0046	0.00267	0.00155	1.16	0.000854	0.00526	0.59	<0.000005	0.446	0.0502
6-Apr-20	25	500	490														
13-Apr-20	26	500	485														
20-Apr-20	27	500	485														
27-Apr-20	28	500	485	0.00881	4.69	0.00062	<0.00001	0.0031	0.00158	0.00097	0.789	0.000656	0.00443	0.39	<0.000005	0.255	0.0353
4-May-20	29	500	485														
11-May-20	30	500	480														
18-May-20	31	500	480														
25-May-20	32	500	465	0.00791	4.53	0.00071	<0.00001	0.0044	0.00152	0.00095	0.762	0.000677	0.00339	0.36	<0.000005	0.240	0.0497
1-Jun-20	33	500	475														
8-Jun-20	34	500	485														
15-Jun-20	35	500	470														
22-Jun-20	36	500	450	0.0121	6.55	0.00043	<0.00001	0.0050	0.00154	0.00135	1.09	0.000892	0.00422	0.47	<0.000005	0.253	0.0491
29-Jun-20	37	500	495														
6-Jul-20	38	500	480														
13-Jul-20	39	500	455														
20-Jul-20	40	500	495	0.00943	6.75	<0.00020	<0.000010	0.0041	0.000921	0.00150	1.07	0.000829	0.00357	0.37	<0.0000050	0.204	0.0424
27-Jul-20	41	500	480														
3-Aug-20	42	500	480														
10-Aug-20	43	500	475														
17-Aug-20	44	500	475	0.00846	6.14	0.00090	<0.000010	0.0077	0.00102	0.00128	1.10	0.000784	0.00390	0.36	0.0000063	0.693	0.0739
24-Aug-20	45	500	480														
31-Aug-20	46	500	490														
7-Sep-20	47	500	470														
14-Sep-20	48	500	470	0.00879	5.89	0.00036	<0.000010	0.0023	0.000945	0.00096	0.83	0.000772	0.00359	0.39	<0.0000050	0.196	0.0540
21-Sep-20	49	500	480														
28-Sep-20	50	500	480														
5-Oct-20	51	500	480														
12-Oct-20	52	500	480	0.00811	5.65	0.00070	<0.000010	0.0057	0.000668	0.00093	0.732	0.000600	0.00364	0.33	<0.0000050	0.130	0.0329
19-Oct-20	53	500	475														
26-Oct-20	54	500	470														
2-Nov-20	55	500	485														
9-Nov-20	56	500	485	0.00907	6.21	<0.00020	<0.000010	0.0038	0.000626	0.00087	0.936	0.000770	0.00322	0.35	<0.0000050	0.134	0.0353
16-Nov-20	57	500	470														
23-Nov-20	58	500	495														
30-Nov-20	59	500	460														
7-Dec-20	60	500	495	0.0106	7.99	0.00032	<0.000010	0.0049	0.000542	0.00133	1.02	0.000788	0.00365	0.46	<0.0000050	0.191	0.0438
14-Dec-20	61	500	495														
21-Dec-20	62	500	495														



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Lithium (Li) - ICPMS	Dissolved Magnesium (Mg) - ICPMS	Dissolved Manganese (Mn) - ICPMS	Dissolved Mercury (Hg) - ICPMS	Dissolved Phosphorus (P) - ICPMS	Dissolved Molybdenum (Mo) - ICPMS	Dissolved Nickel (Ni) - ICPMS	Dissolved Potassium (K) - ICPMS	Dissolved Rubidium (Rb) - ICPMS	Dissolved Selenium (Se) - ICPMS	Dissolved Silicon (Si) - ICPMS	Dissolved Silver (Ag) - ICPMS	Dissolved Sodium (Na) - ICPMS	Dissolved Strontium (Sr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	0.0005	0.05	0.0002	0.00001	0.002	0.00005	0.0002	0.05	0.00005	0.00004	0.1	0.000005	0.05	0.00025
28-Dec-20	63	500	455														
4-Jan-21	64	500	485	0.00919	7.19	0.00040	<0.000010	0.0047	0.000445	0.00130	0.899	0.000723	0.00247	0.45	<0.0000050	0.143	0.0370
11-Jan-21	65	500	490														
18-Jan-21	66	500	460														

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

Methods:
 Total Alkalinity: Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL		N/A		10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
14-Oct-19	0	750	590	74	<0.00002	0.0000224	<0.000005	<0.002	<0.0005	<0.00001	0.0000198	<0.0002	0.0709	<0.0001
21-Oct-19	1	500	490											
28-Oct-19	2	500	495											
4-Nov-19	3	500	455											
11-Nov-19	4	500	440	16	<0.00002	0.0000092	<0.000005	<0.002	0.00190	0.000027	0.0000701	<0.0002	0.0046	<0.0001
18-Nov-19	5	500	440											
25-Nov-19	6	500	440											
2-Dec-19	7	500	465											
9-Dec-19	8	500	490	11	<0.00002	0.0000069	<0.000005	<0.002	0.00119	0.000024	0.000313	0.00023	0.0067	<0.0001
16-Dec-19	9	500	455											
23-Dec-19	10	500	485											
30-Dec-19	11	500	475											
6-Jan-20	12	500	485	<10	<0.00002	0.0000056	<0.000005	<0.002	0.00130	0.000020	0.000250	<0.0002	0.0080	<0.0001
13-Jan-20	13	500	495											
20-Jan-20	14	500	470											
27-Jan-20	15	500	495											
3-Feb-20	16	500	495	<10	<0.00002	0.0000054	<0.000005	<0.002	0.00051	0.000017	0.000197	<0.0002	0.0070	<0.0001
10-Feb-20	17	500	460											
17-Feb-20	18	500	445											
24-Feb-20	19	500	500											
2-Mar-20	20	500	495	<10	<0.00002	0.0000055	<0.000005	<0.002	<0.0005	0.000014	0.000176	<0.0002	0.0038	<0.0001
9-Mar-20	21	500	475											
16-Mar-20	22	500	475											
23-Mar-20	23	500	475											
30-Mar-20	24	500	475	<10	<0.00002	<0.000002	0.0000063	<0.002	0.00079	0.000027	0.000231	<0.0002	0.0028	<0.0001
6-Apr-20	25	500	490											
13-Apr-20	26	500	485											
20-Apr-20	27	500	485											
27-Apr-20	28	500	485	<10	0.000025	0.0000041	<0.000005	<0.002	0.00077	0.000014	0.000151	<0.0002	0.0023	<0.0001
4-May-20	29	500	485											
11-May-20	30	500	480											
18-May-20	31	500	480											
25-May-20	32	500	465	<10	<0.00002	0.0000036	<0.000005	<0.002	<0.0005	0.000015	0.000121	<0.0002	0.0028	<0.0001
1-Jun-20	33	500	475											
8-Jun-20	34	500	485											
15-Jun-20	35	500	470											
22-Jun-20	36	500	450	<10	<0.00002	0.0000046	0.0000054	<0.002	<0.0005	0.000015	0.000164	<0.0002	0.0036	<0.0001
29-Jun-20	37	500	495											
6-Jul-20	38	500	480											
13-Jul-20	39	500	455											
20-Jul-20	40	500	495	<10	<0.000020	0.0000038	<0.0000050	<0.0020	<0.00050	<0.000010	0.000134	<0.00020	0.0051	<0.00010
27-Jul-20	41	500	480											
3-Aug-20	42	500	480											
10-Aug-20	43	500	475											
17-Aug-20	44	500	475	<10	<0.000020	0.0000034	<0.0000050	<0.0020	0.00090	0.000012	0.000123	0.00028	0.0033	<0.00010
24-Aug-20	45	500	480											
31-Aug-20	46	500	490											
7-Sep-20	47	500	470											
14-Sep-20	48	500	470	<10	<0.000020	0.0000045	<0.0000050	<0.0020	<0.00050	<0.000010	0.000082	<0.00020	0.0042	<0.00010
21-Sep-20	49	500	480											
28-Sep-20	50	500	480											
5-Oct-20	51	500	480											
12-Oct-20	52	500	480	<10	<0.000020	0.0000024	<0.0000050	<0.0020	<0.00050	<0.000010	0.0000870	<0.00020	0.0032	<0.00010
19-Oct-20	53	500	475											
26-Oct-20	54	500	470											
2-Nov-20	55	500	485											
9-Nov-20	56	500	485	<10	<0.000020	0.0000044	<0.0000050	<0.0020	<0.00050	0.000021	0.0000878	<0.00020	0.0032	<0.00010
16-Nov-20	57	500	470											
23-Nov-20	58	500	495											
30-Nov-20	59	500	460											
7-Dec-20	60	500	495	<10	<0.000020	0.0000041	<0.0000050	<0.0020	0.00057	0.000012	0.000104	<0.00020	0.0051	<0.00010
14-Dec-20	61	500	495											
21-Dec-20	62	500	495											

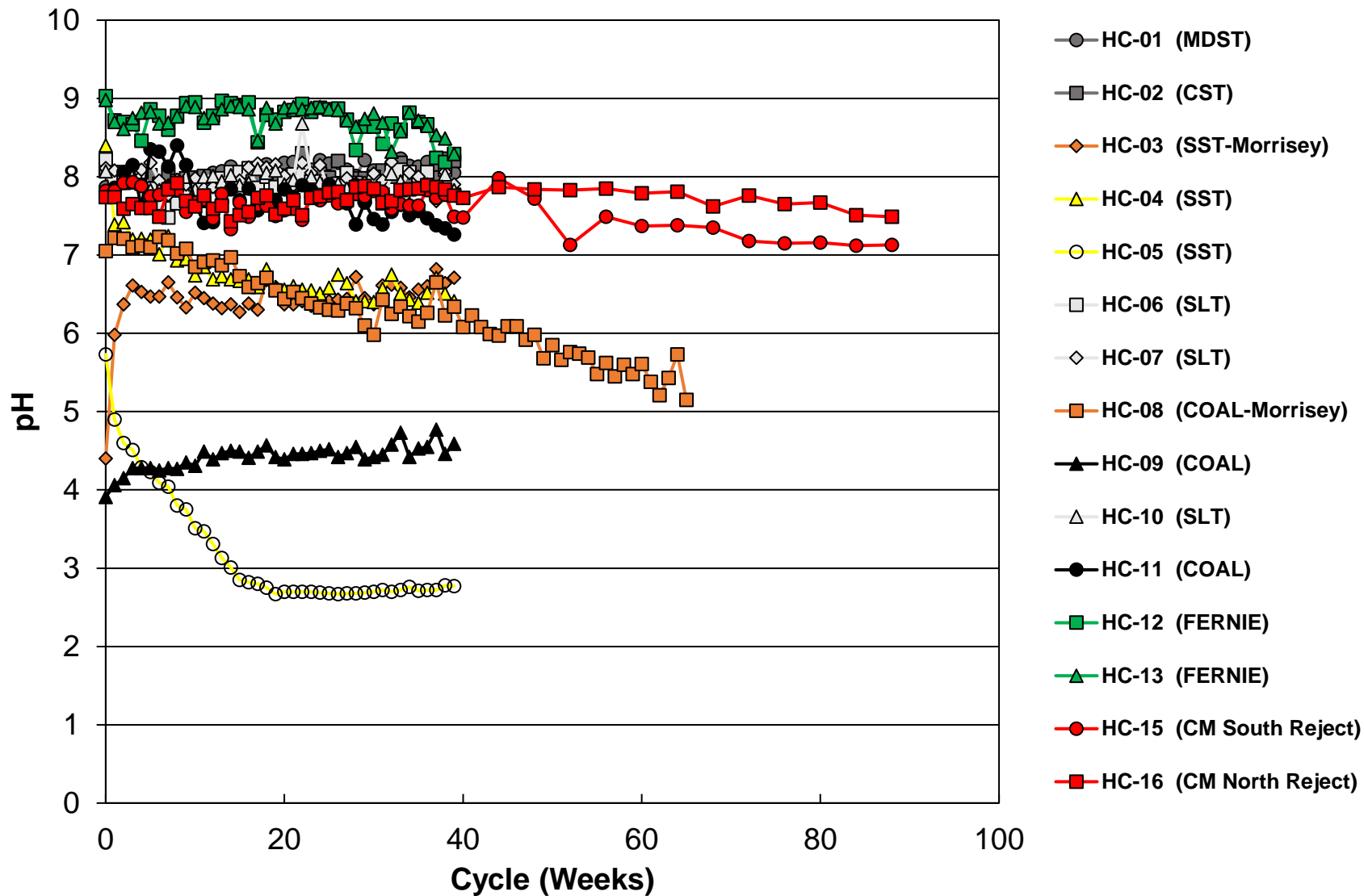


Client: NWP Coal Canada Ltd.
 Client Project Name: NWP-CROWN MOUNTAIN
 Maxxam Project No: TECK_RDL
 Leachate Chemistry of HC-16 CROWN MTN; Sample ID: CM

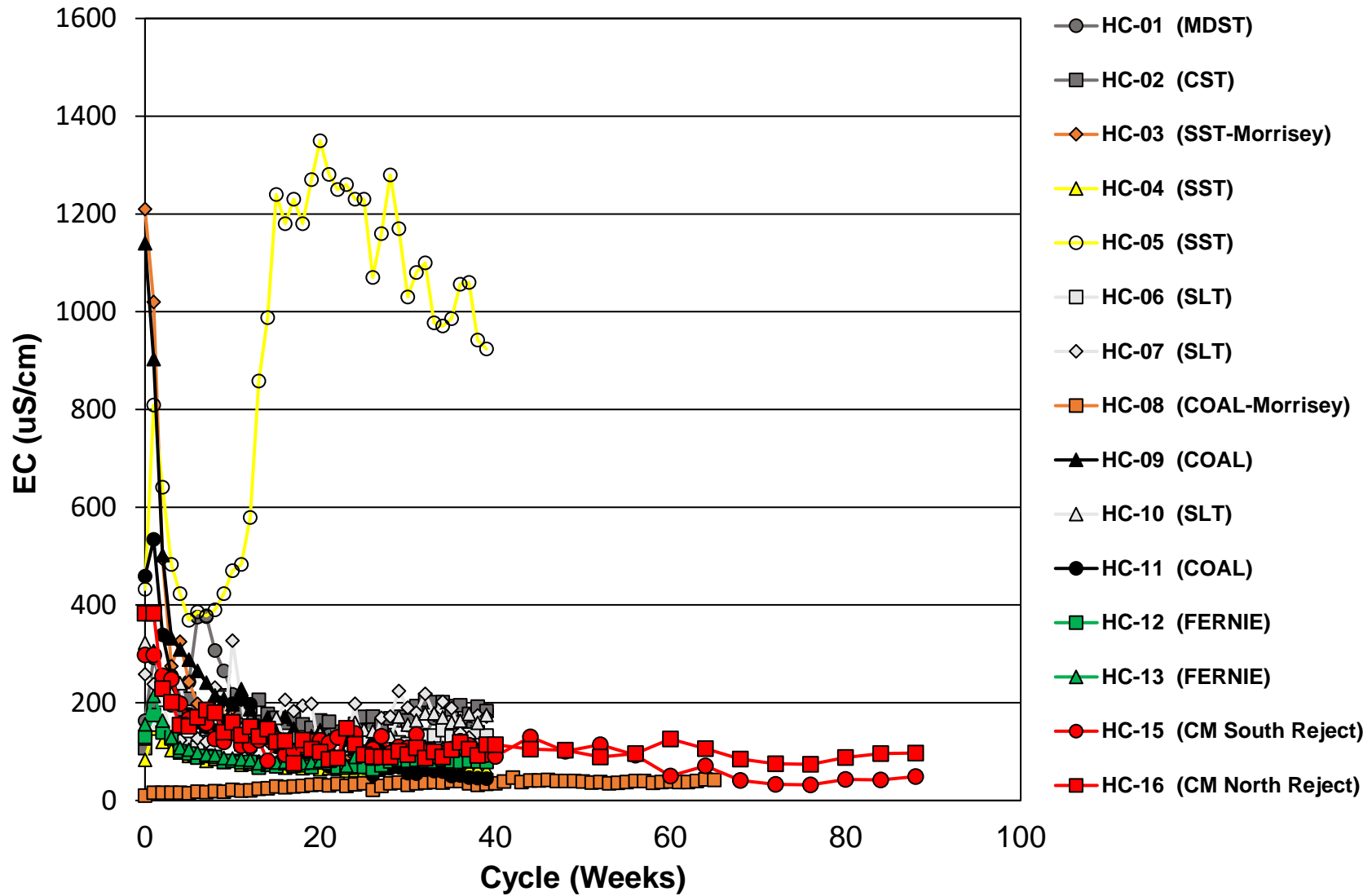
Sampling Date	Week No.	Input Volume	Output Volume	Dissolved Sulphur (S) - ICPMS	Dissolved Tellurium (Te) - ICPMS	Dissolved Thallium (Tl) - ICPMS	Dissolved Thorium (Th) - ICPMS	Dissolved Tin (Sn) - ICPMS	Dissolved Titanium (Ti) - ICPMS	Dissolved Tungsten (W) - ICPMS	Dissolved Uranium (U) - ICPMS	Dissolved Vanadium (V) - ICPMS	Dissolved Zinc (Zn) - ICPMS	Dissolved Zirconium (Zr) - ICPMS
UNITS		mL	mL	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
RDL			N/A	10	0.00002	0.000002	0.000005	0.002	0.0005	0.00001	0.0001	0.0002	0.001	0.0001
28-Dec-20	63	500	455											
4-Jan-21	64	500	485	<10	<0.000020	0.0000047	0.0000058	<0.0020	0.00059	<0.000010	0.0000573	<0.00020	0.0053	<0.00010
11-Jan-21	65	500	490											
18-Jan-21	66	500	460											

SO4 Detection limits raised due to dilution to bring analyte within the calibrated range.

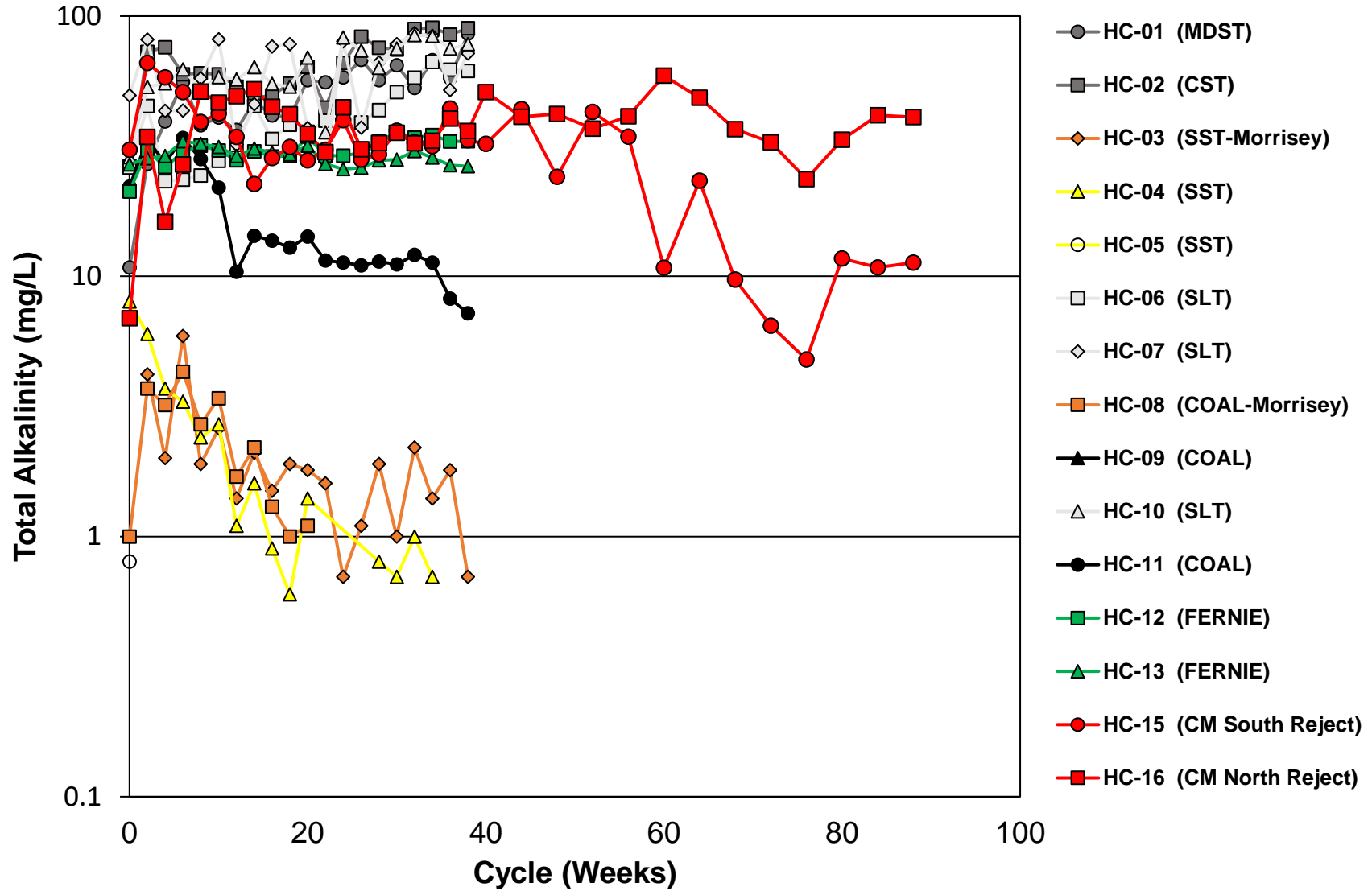
Methods:
 Total Alkalinity : Titration and Calculation ; BBY6SOP-00026
 Chloride : Ion Chromatography ; BBY6SOP-00011
 EC : EC Meter ; BBY0SOP-00006
 Fluoride : Selective Ion Electrode ; BBY6SOP-00048
 Nitrite (NO₂) by Colourimetry ; BBY6SOP-00010
 Nitrate+Nitrite by Colorimetry ; BBY6SOP-00010
 Calculated parameter based on the concentration of Nitrate plus Nitrite(NO₂+NO₃) minus Nitrite(NO₂)
 pH : pH Meter ; BBY0SOP-00003
 Sulphate : Auto Turbidity ; BBY6SOP-00017
 Total NH₄: AB SOP-0007



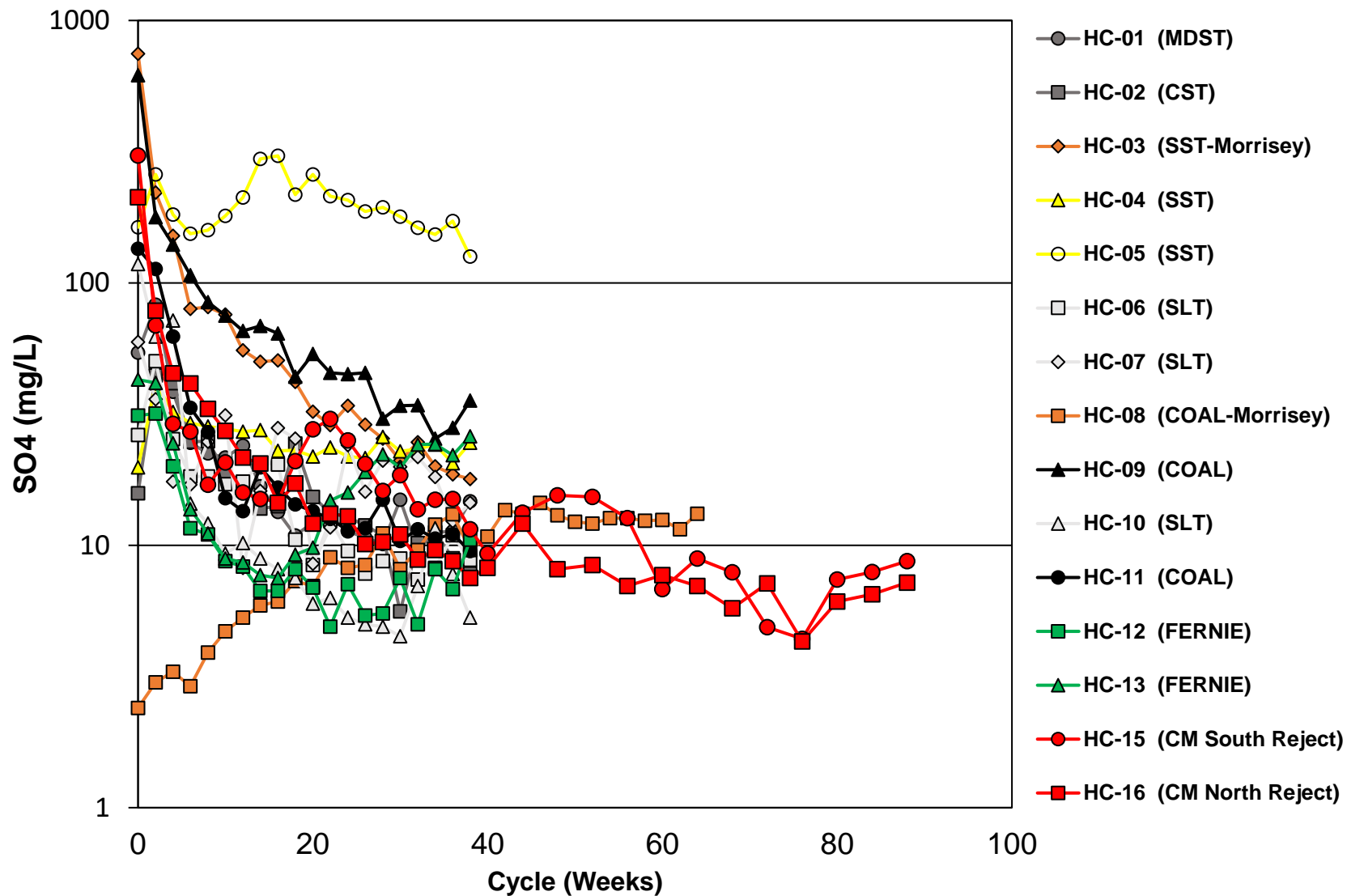
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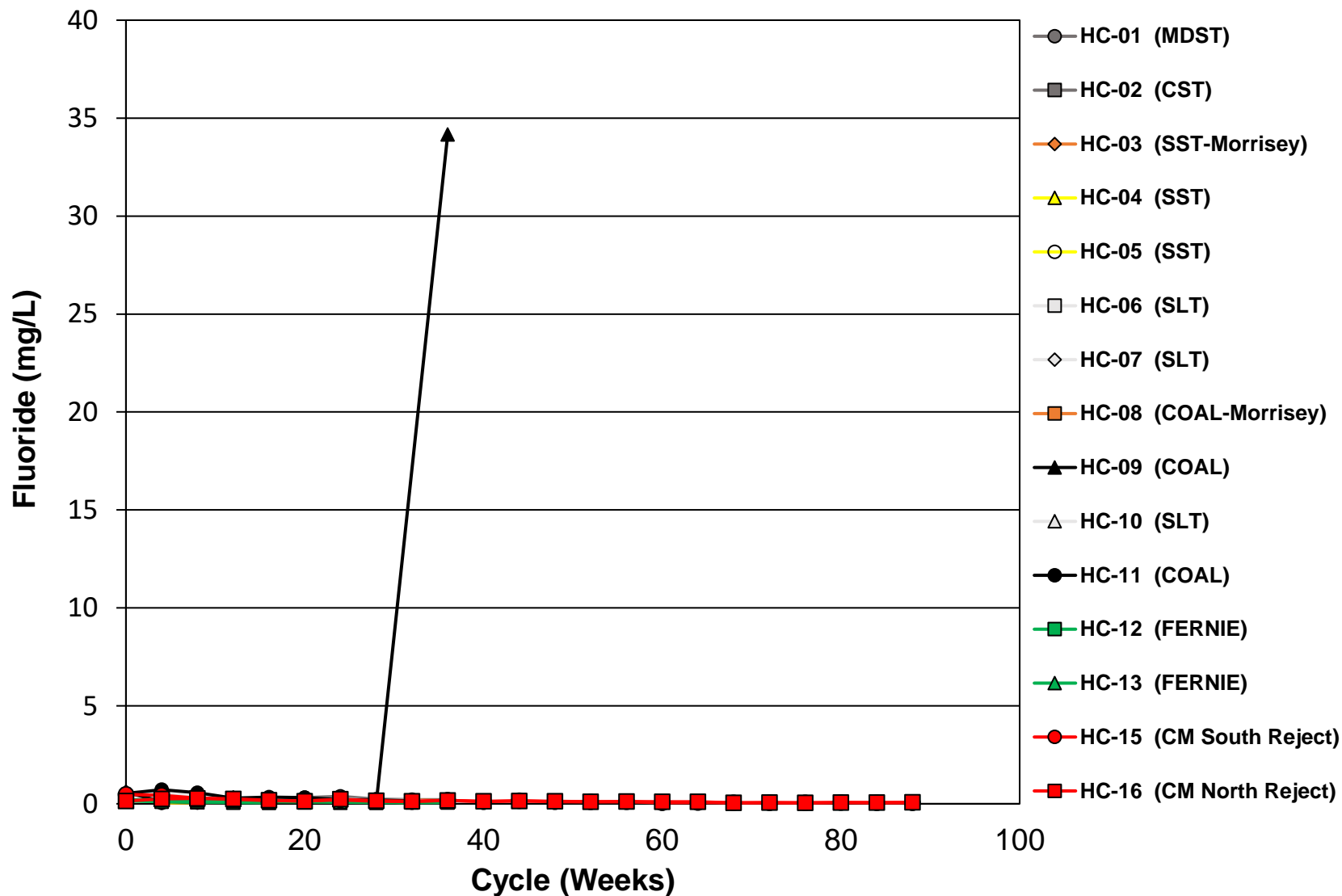
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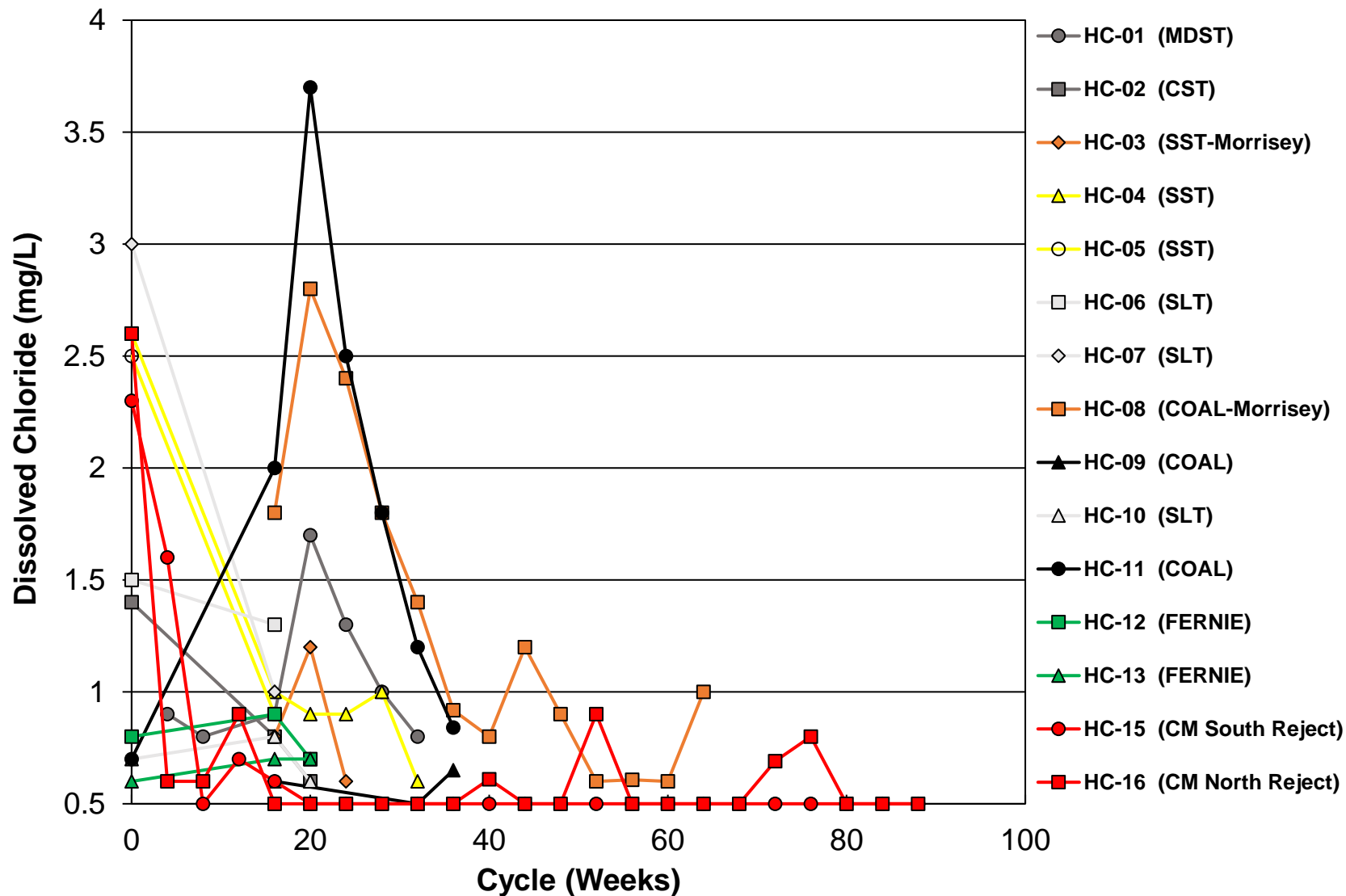
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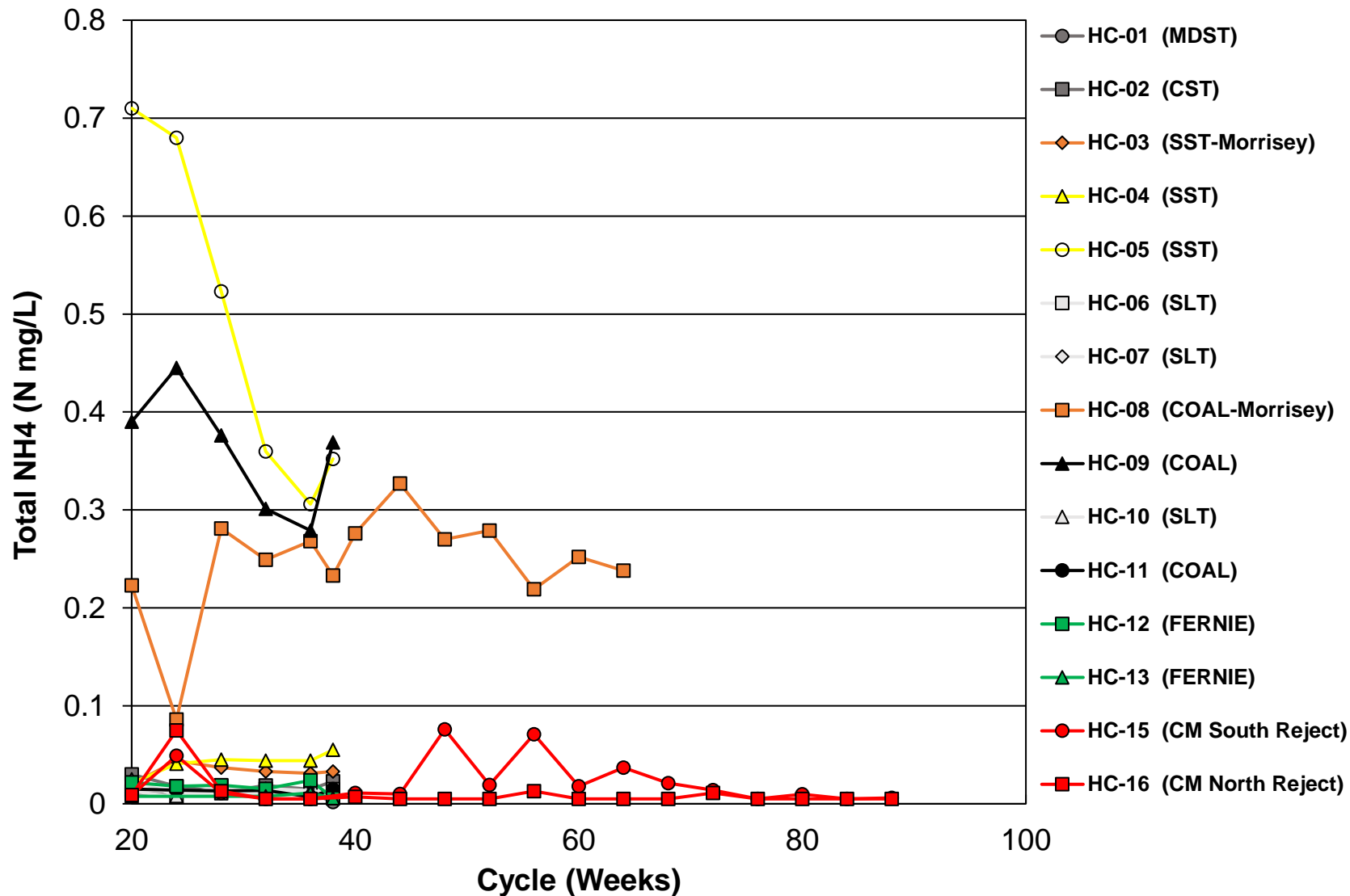
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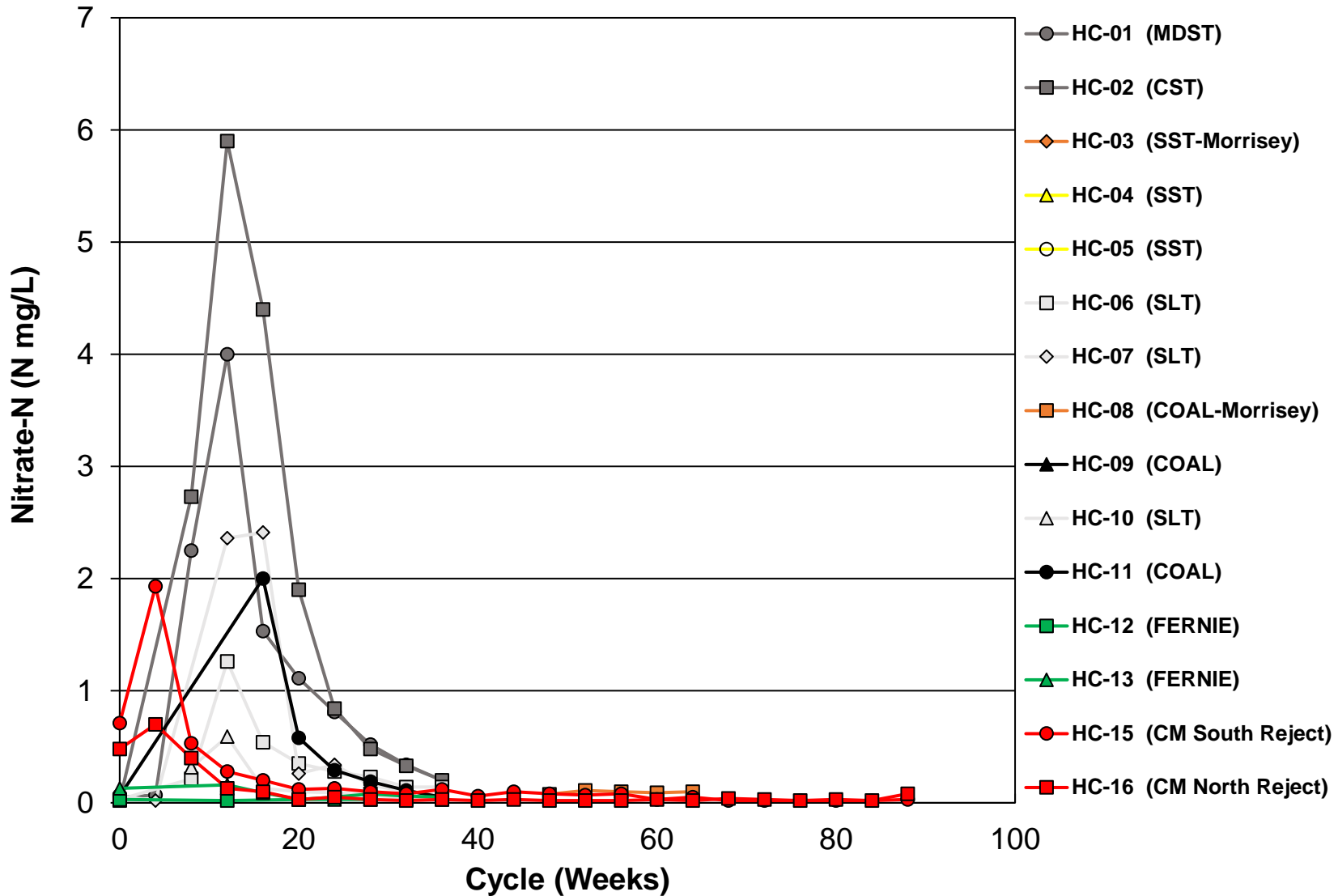
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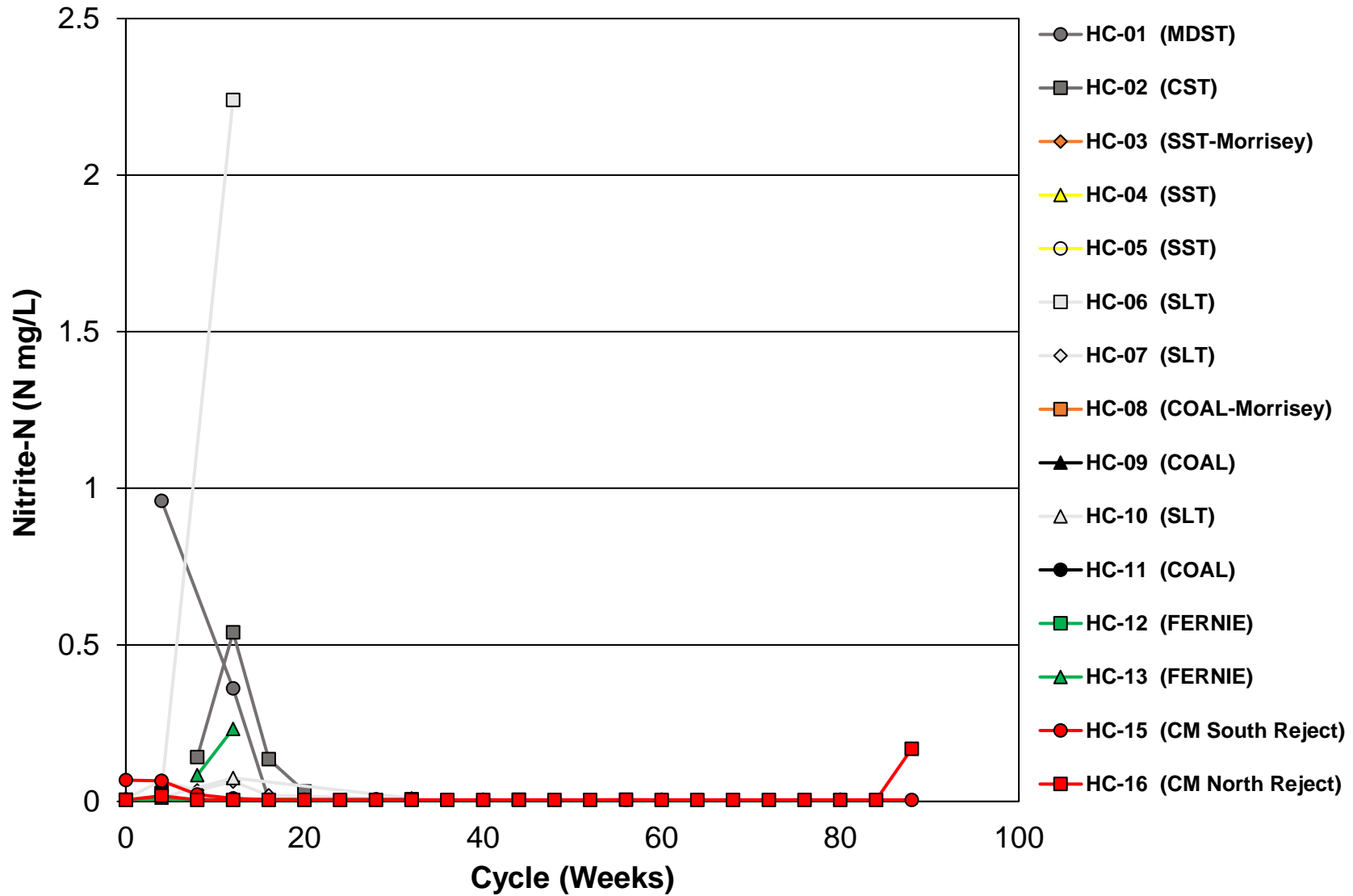
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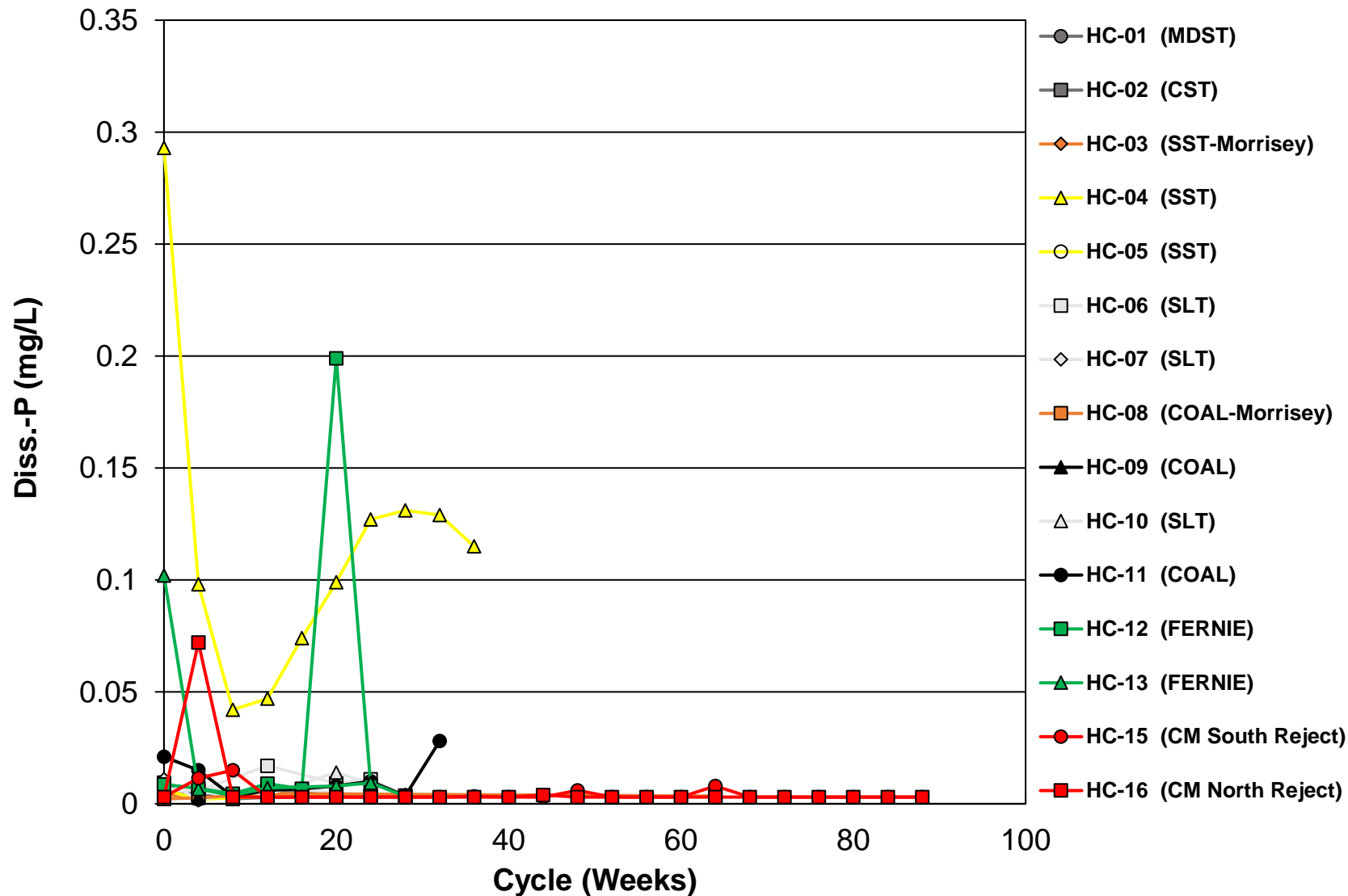
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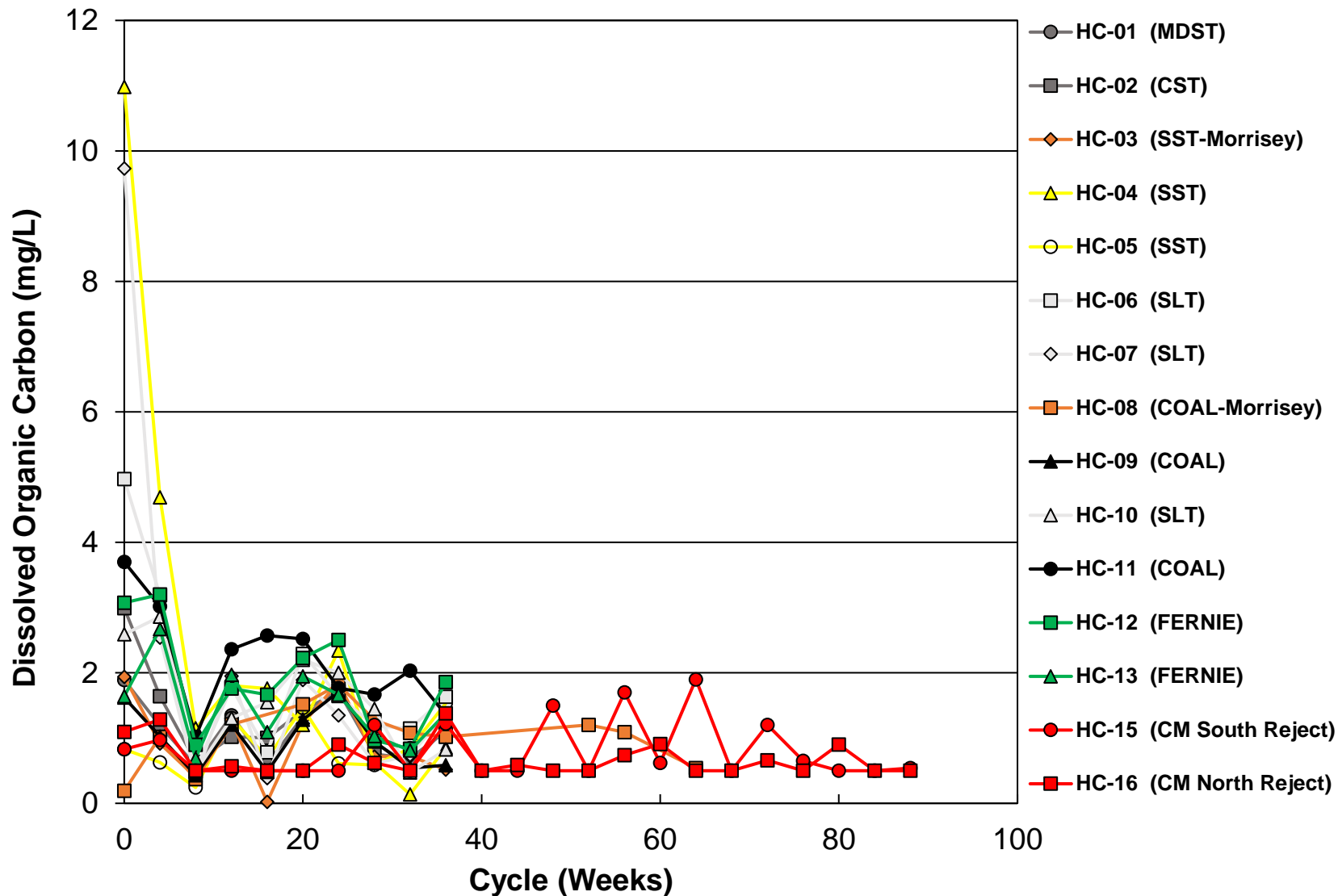
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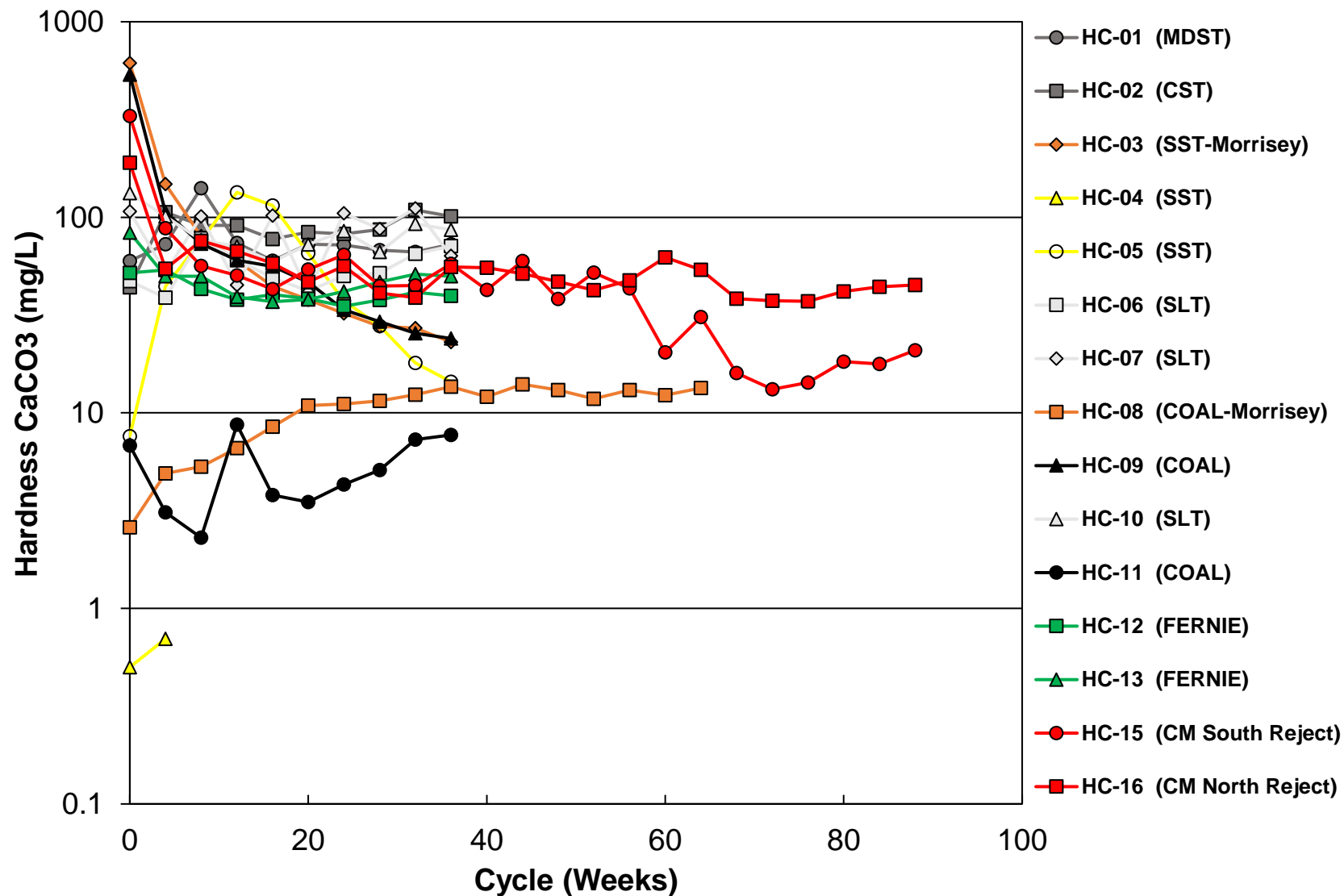
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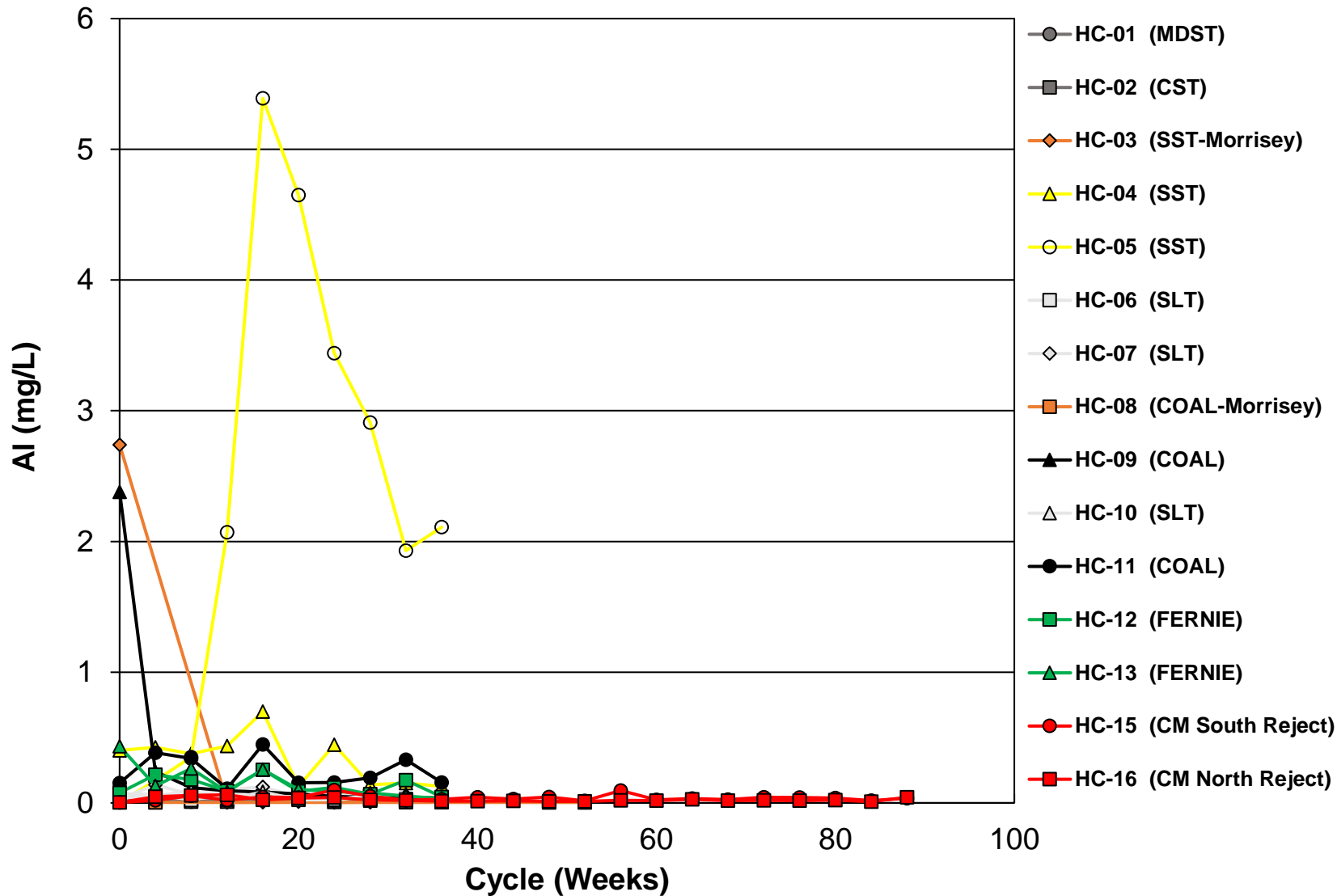
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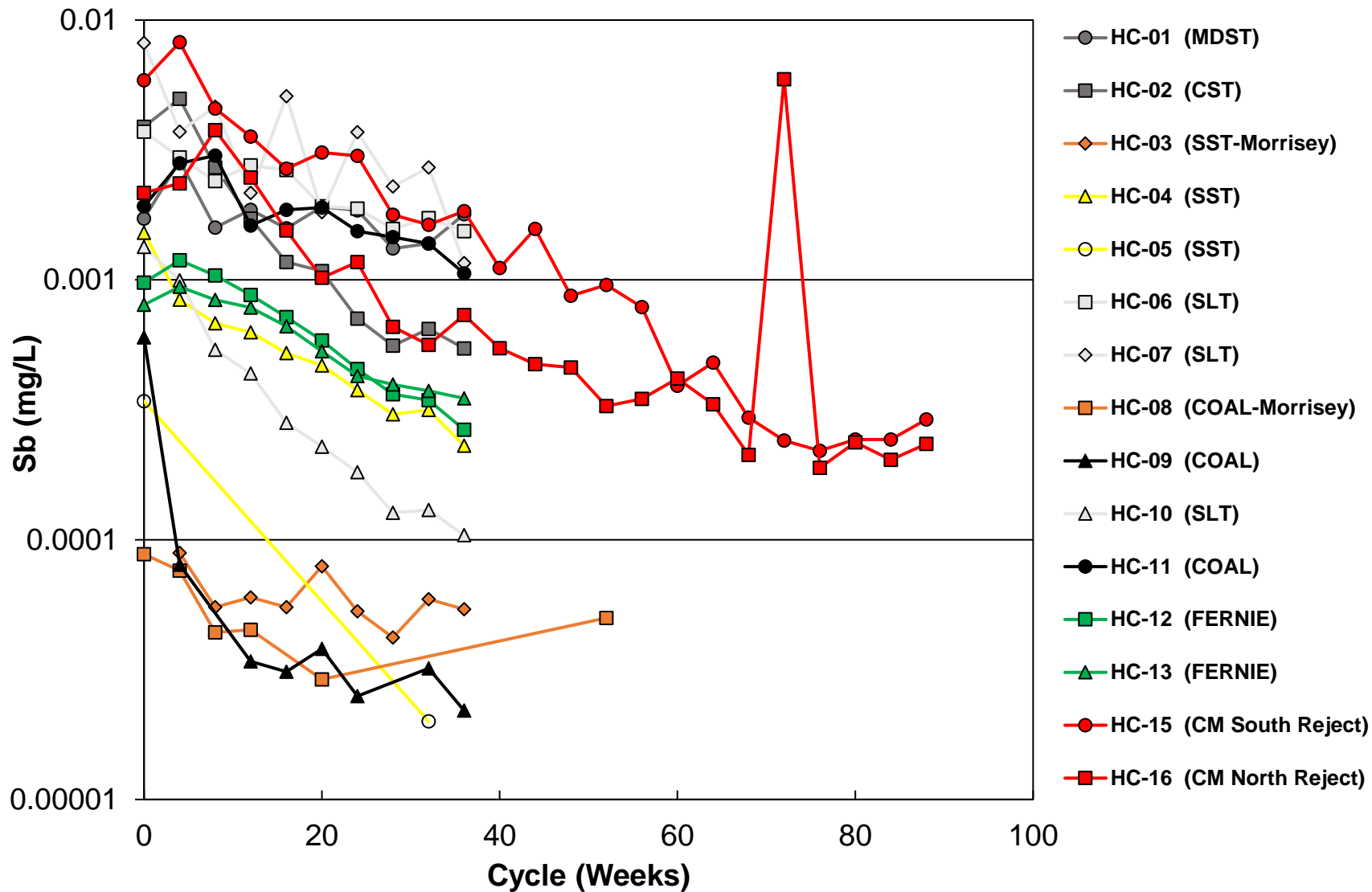
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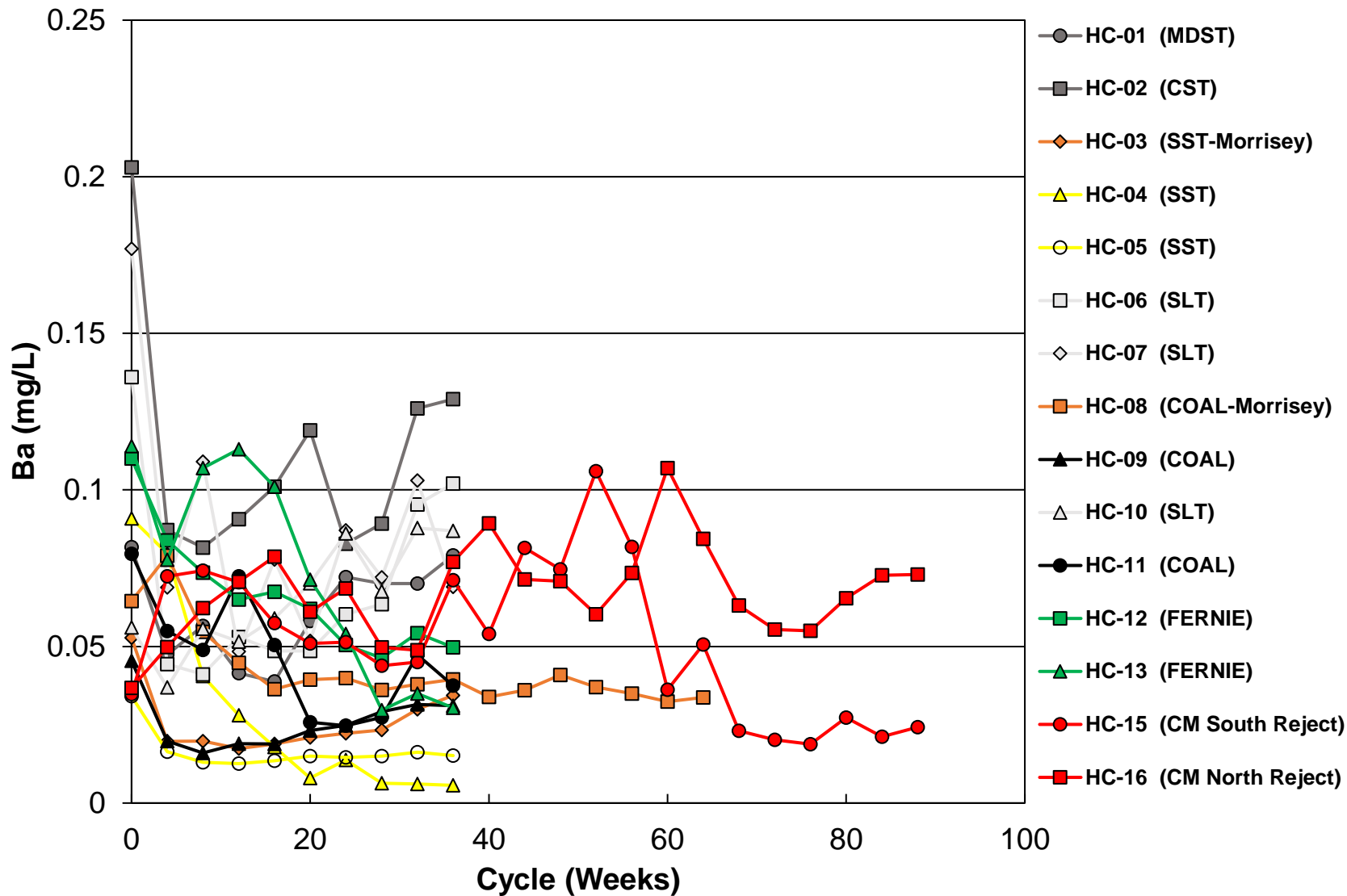
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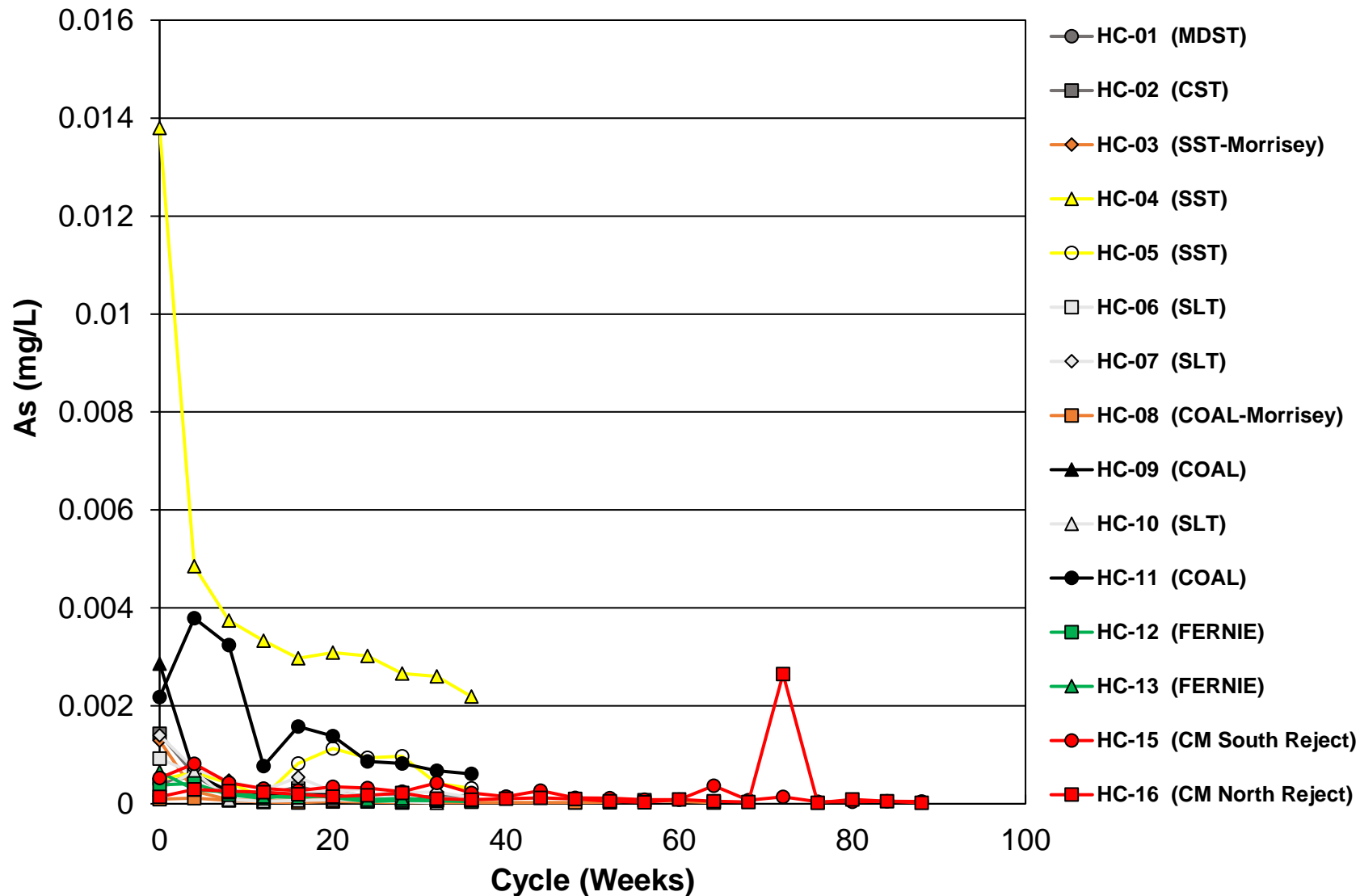
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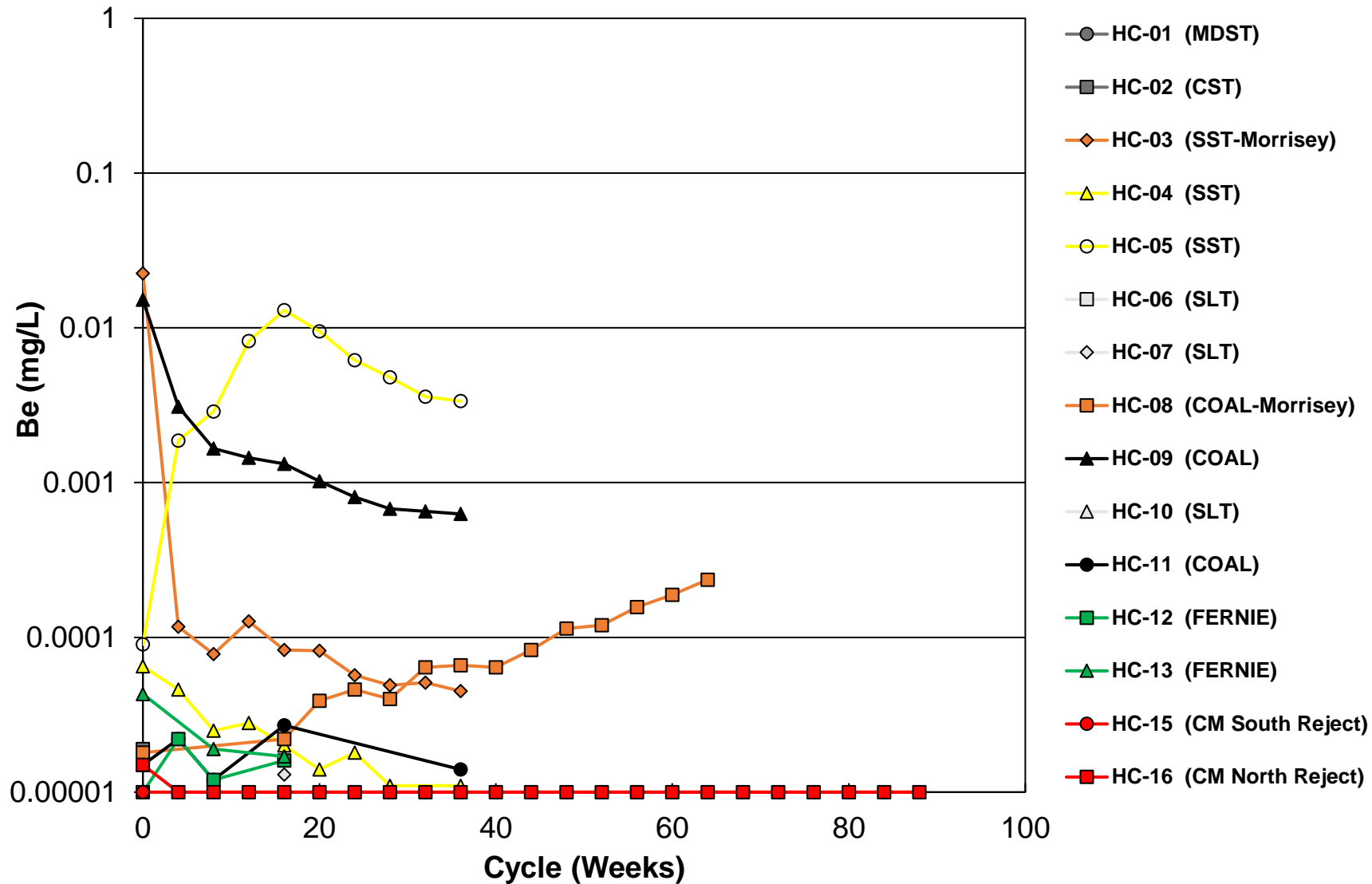
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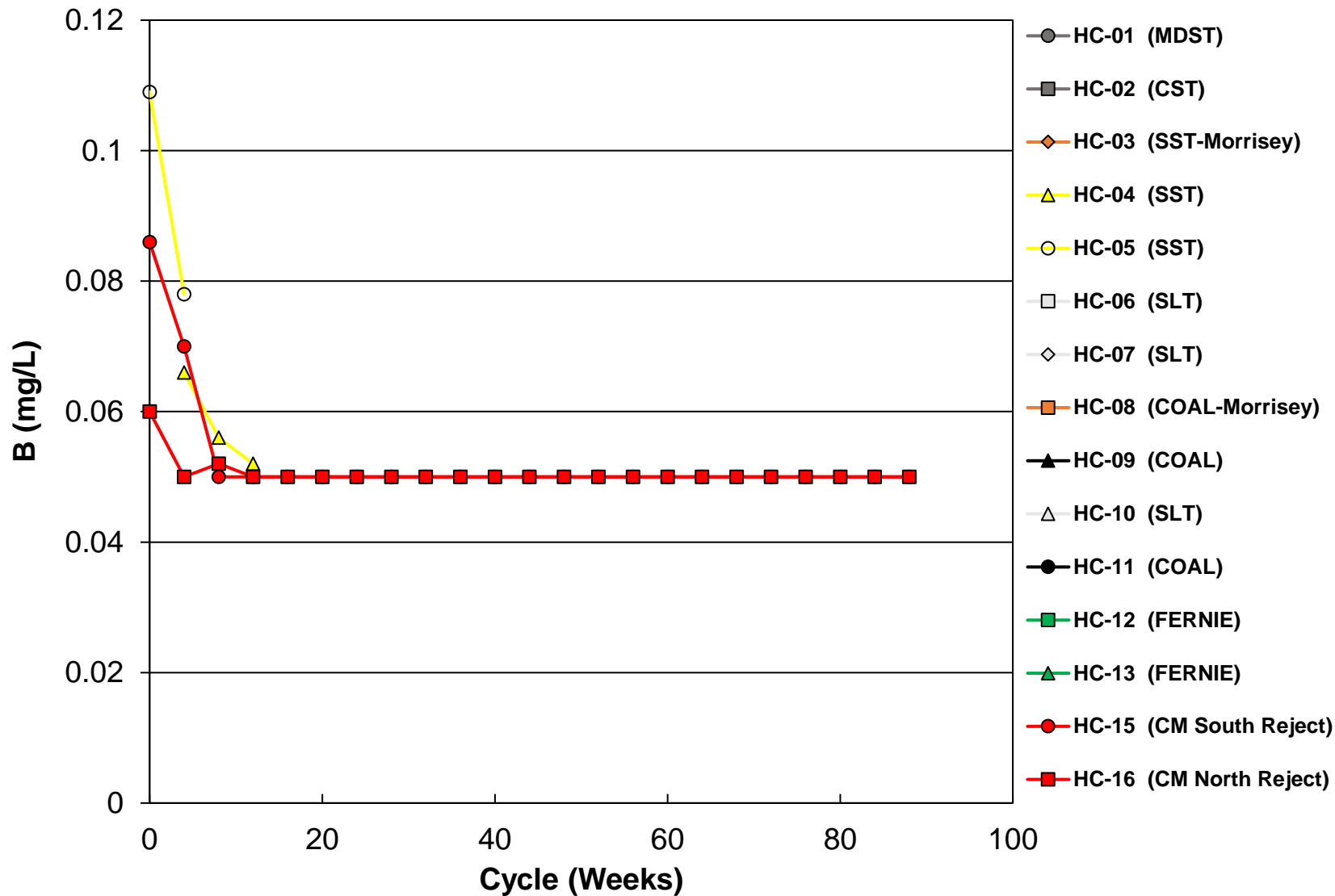
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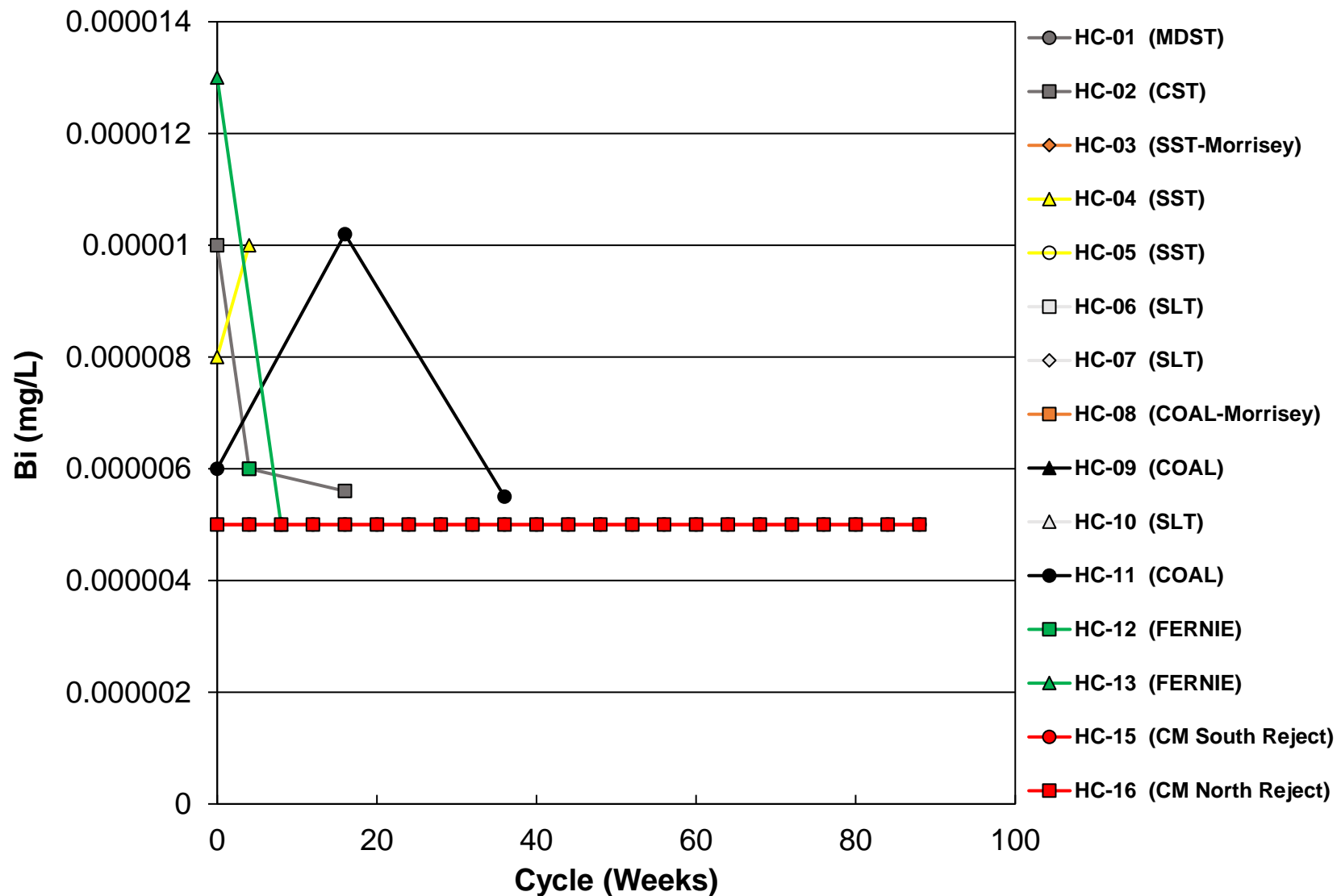
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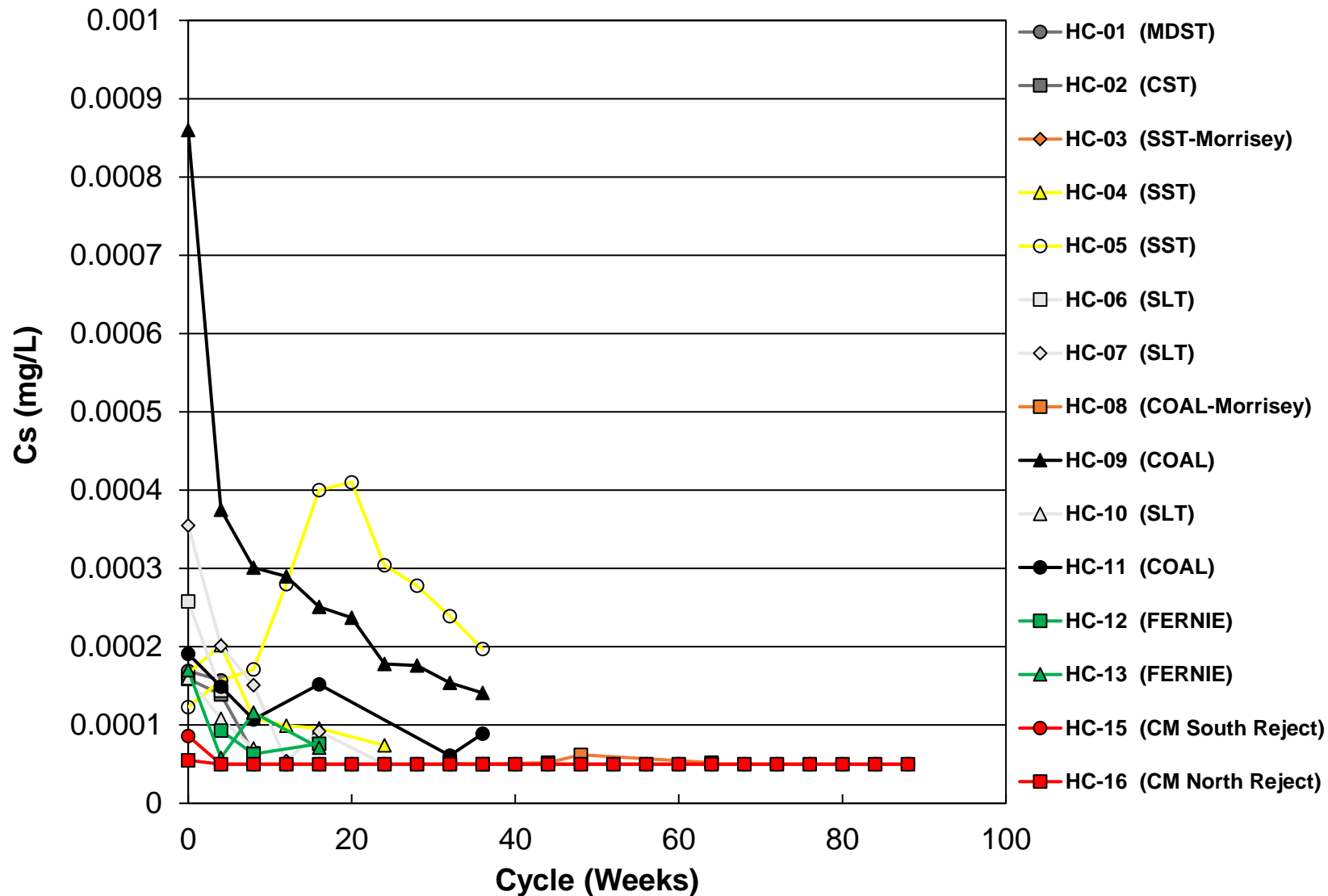
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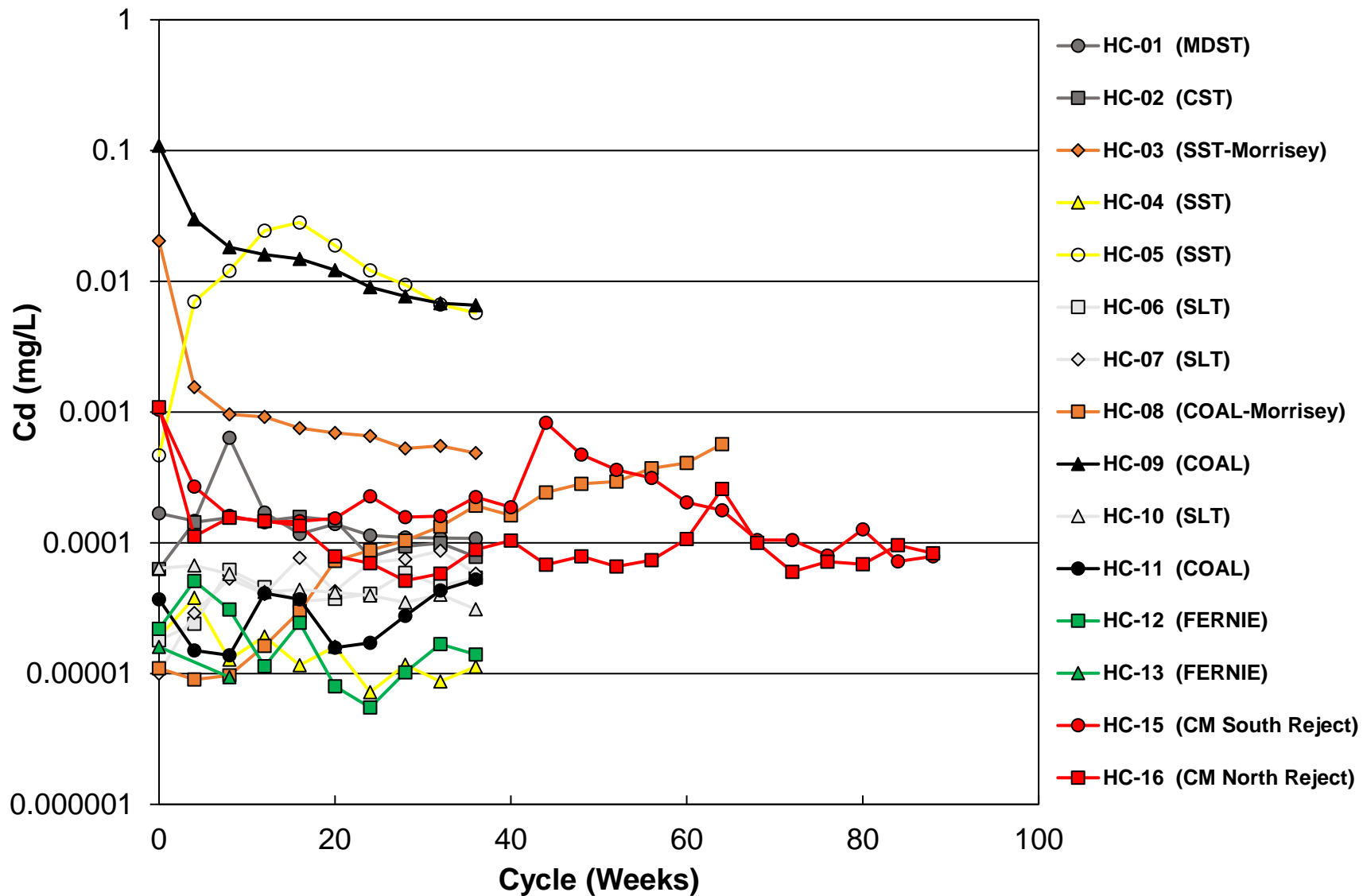
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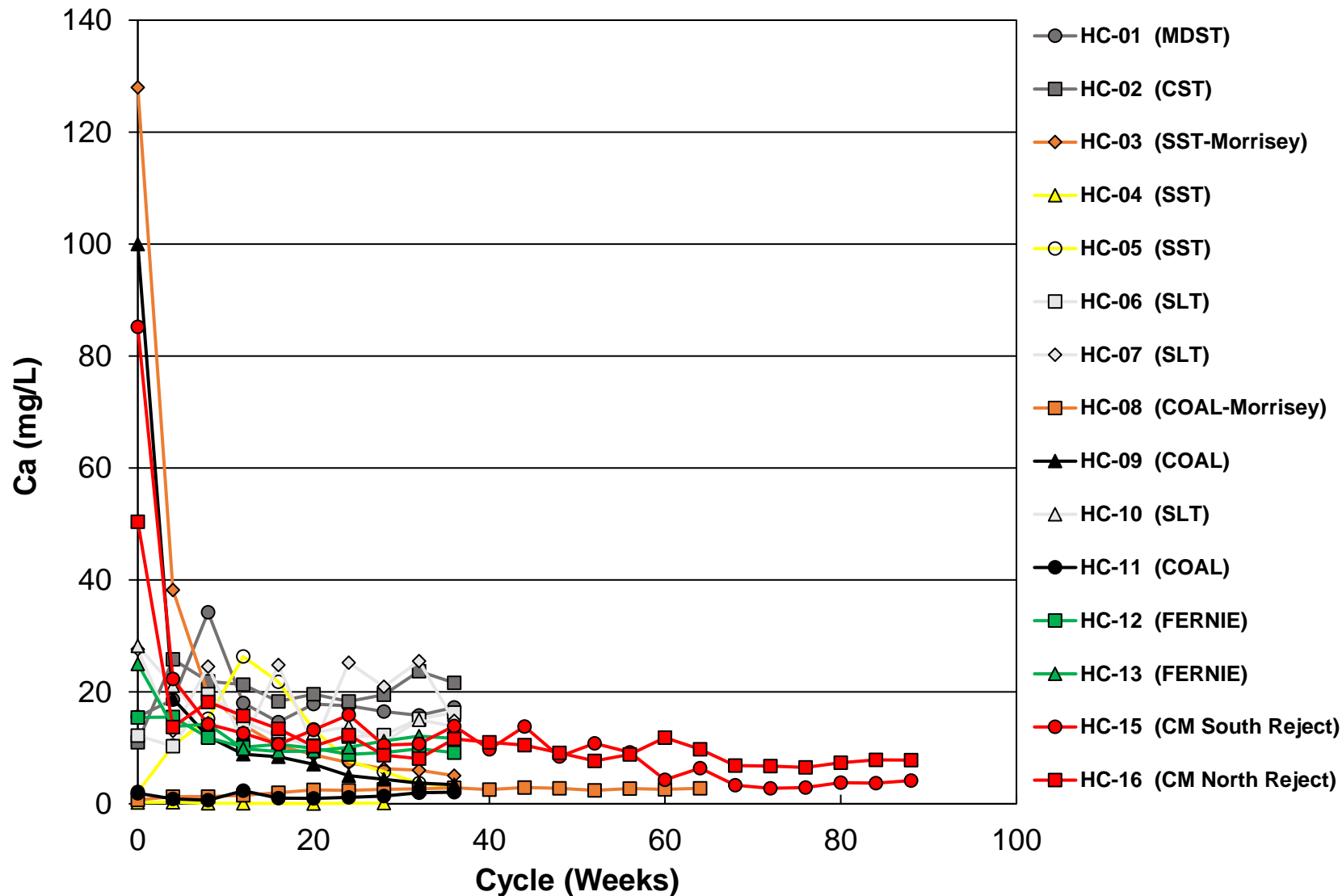
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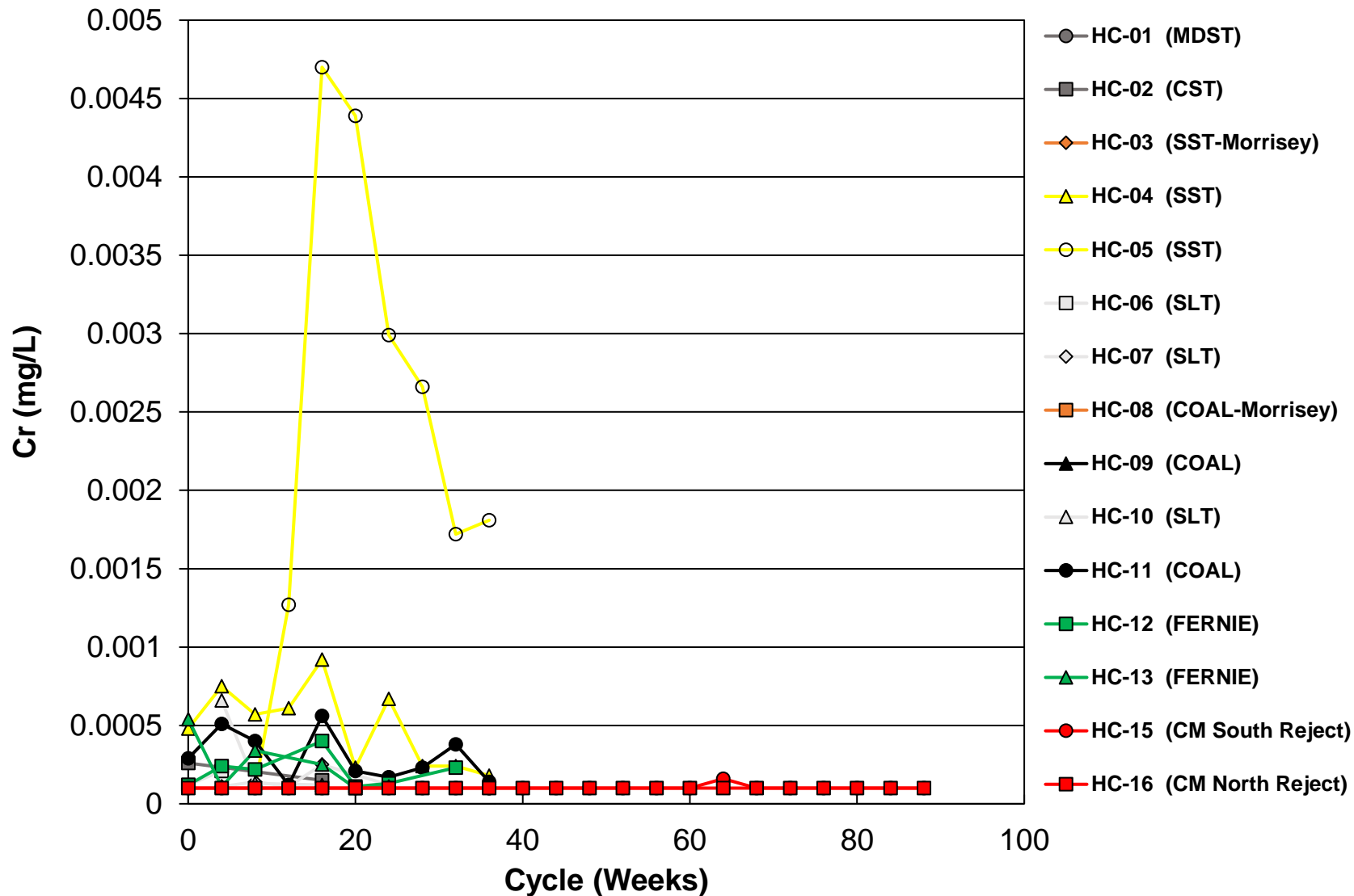
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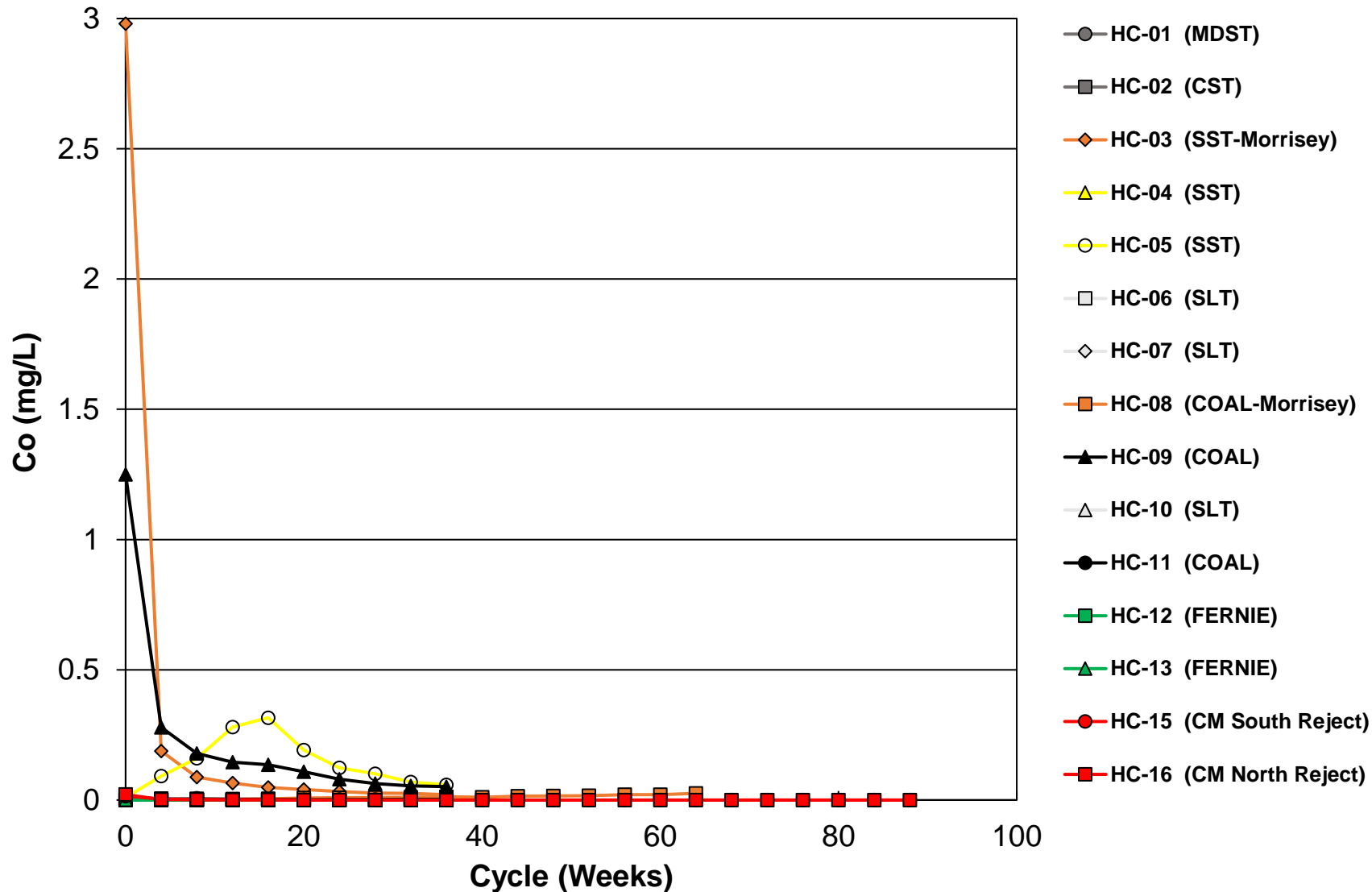
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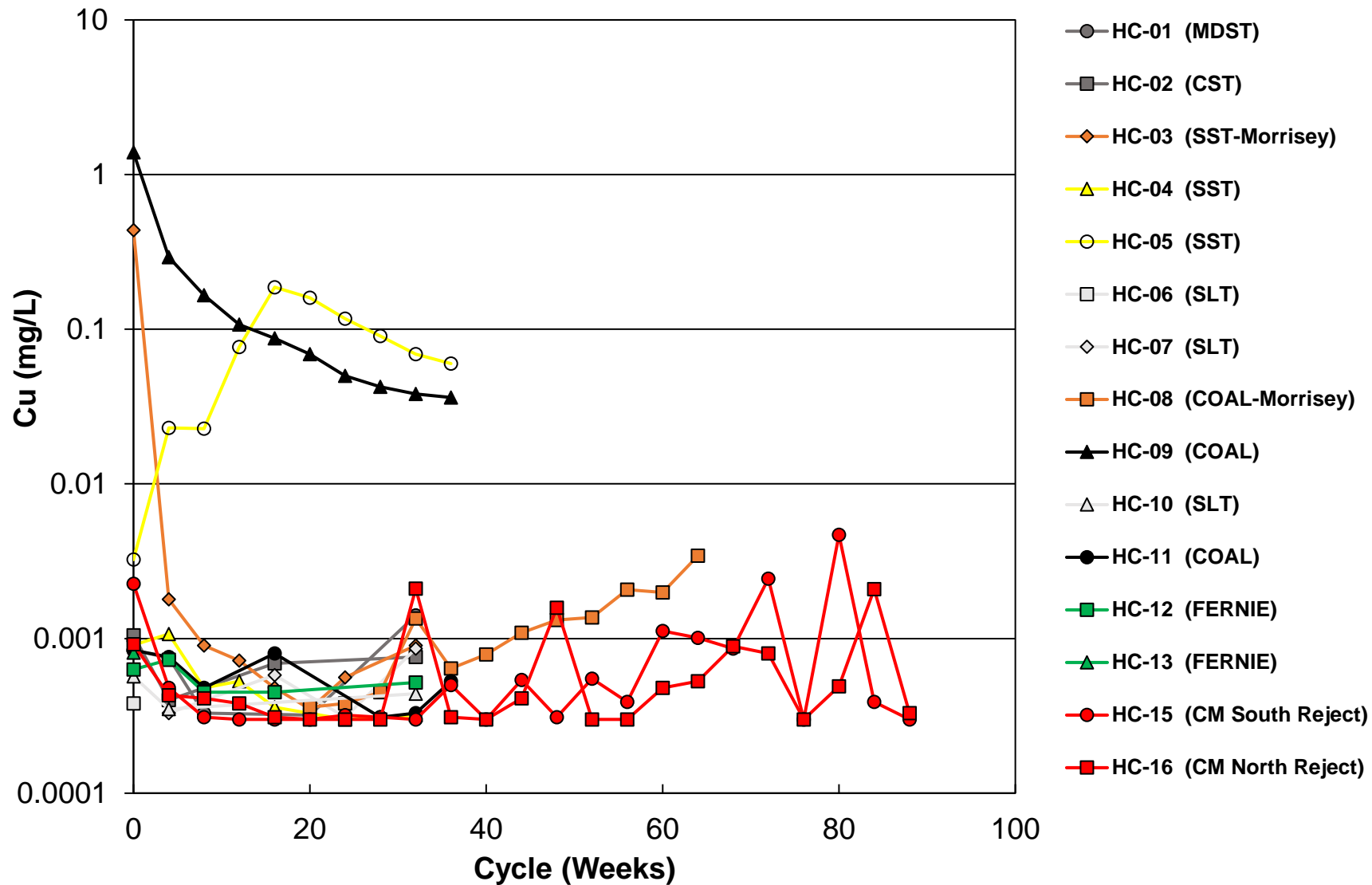
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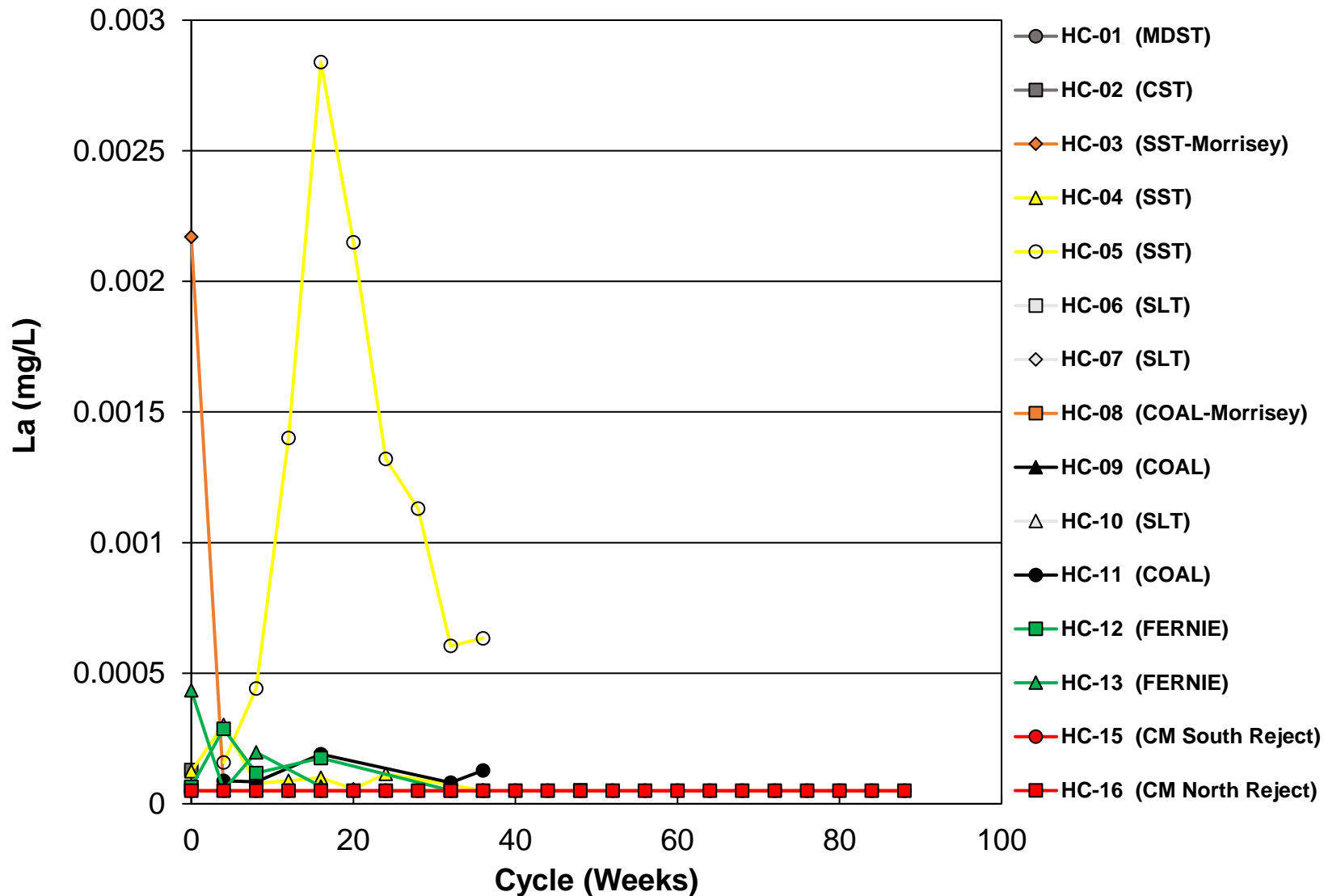
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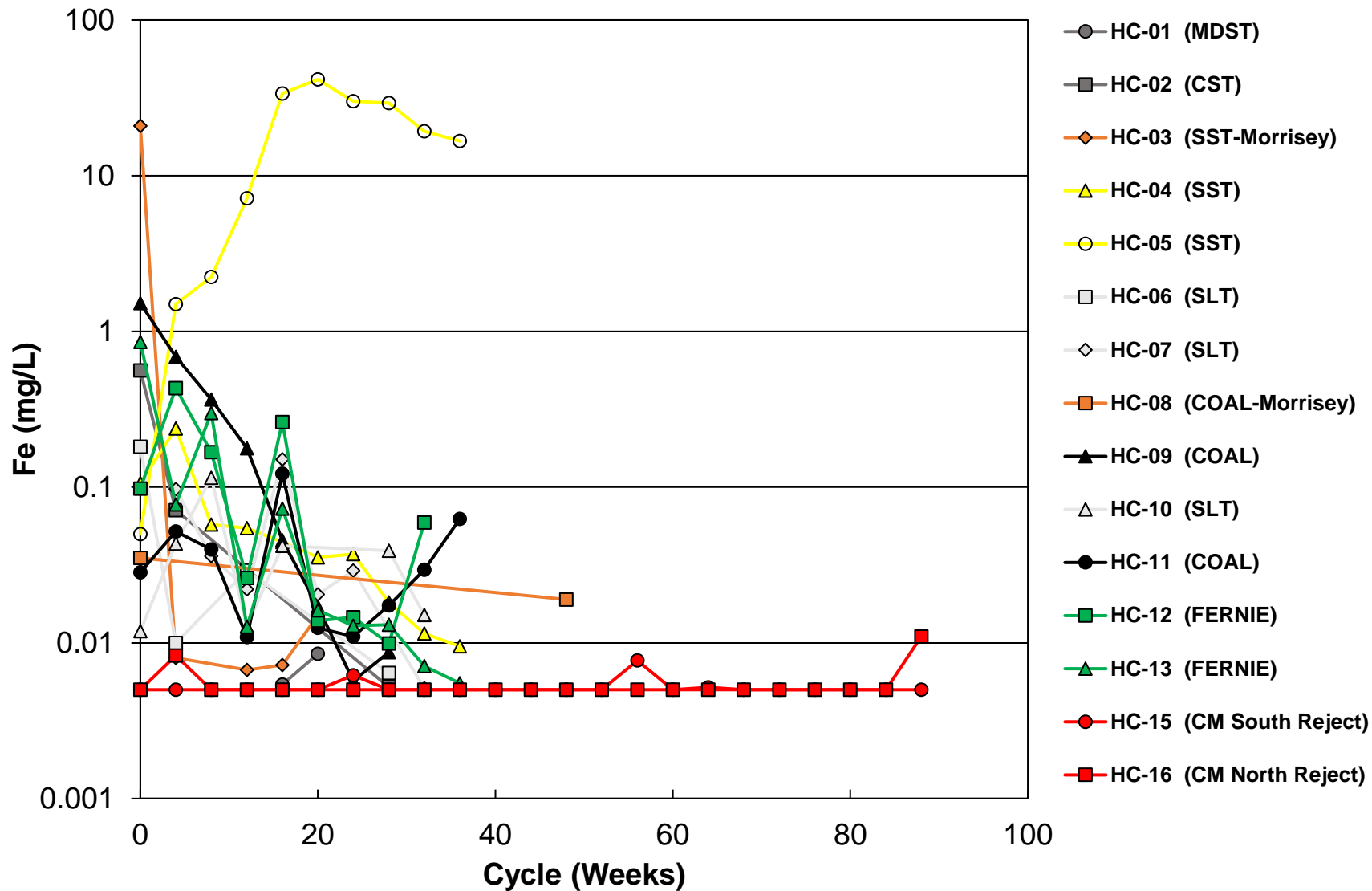
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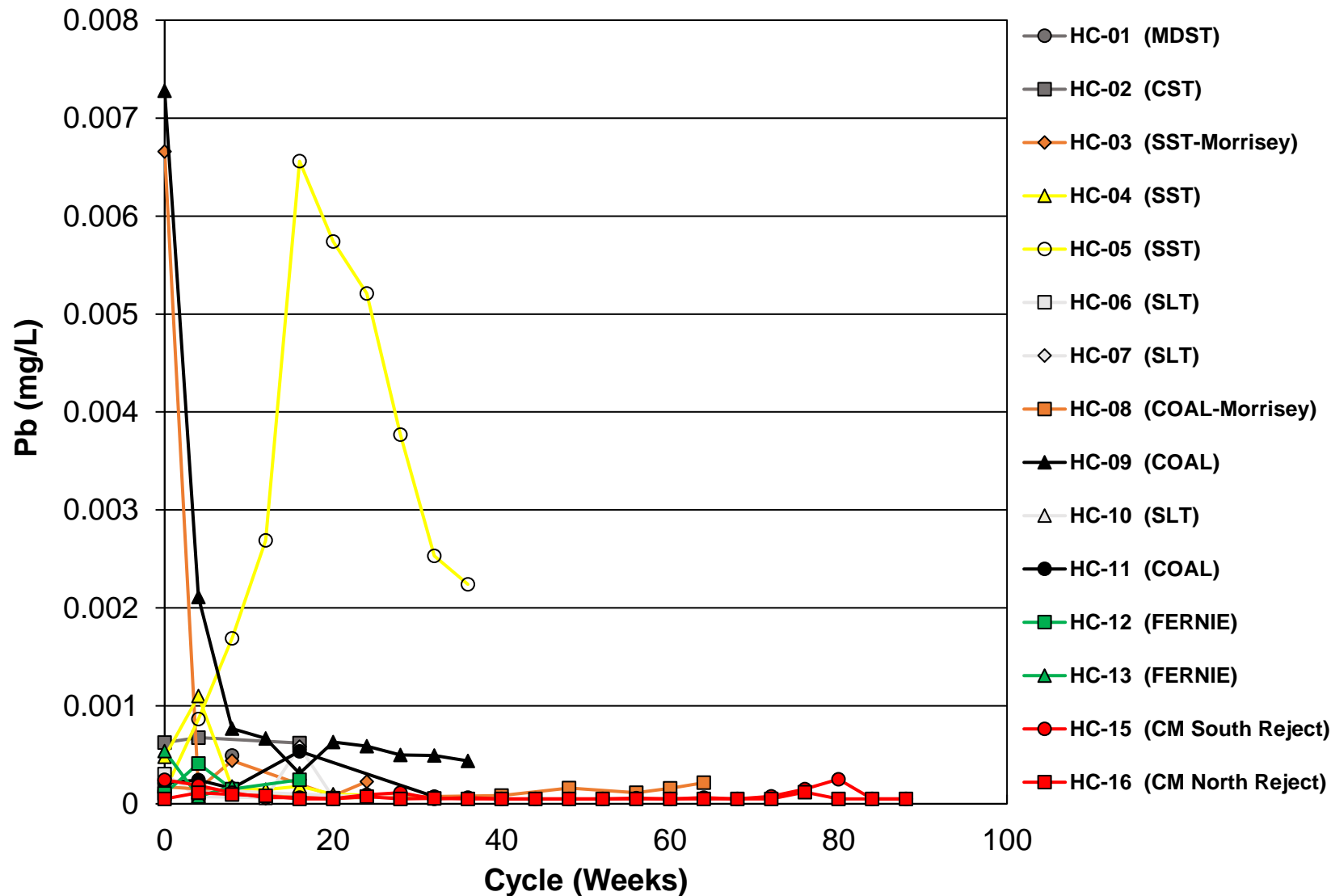
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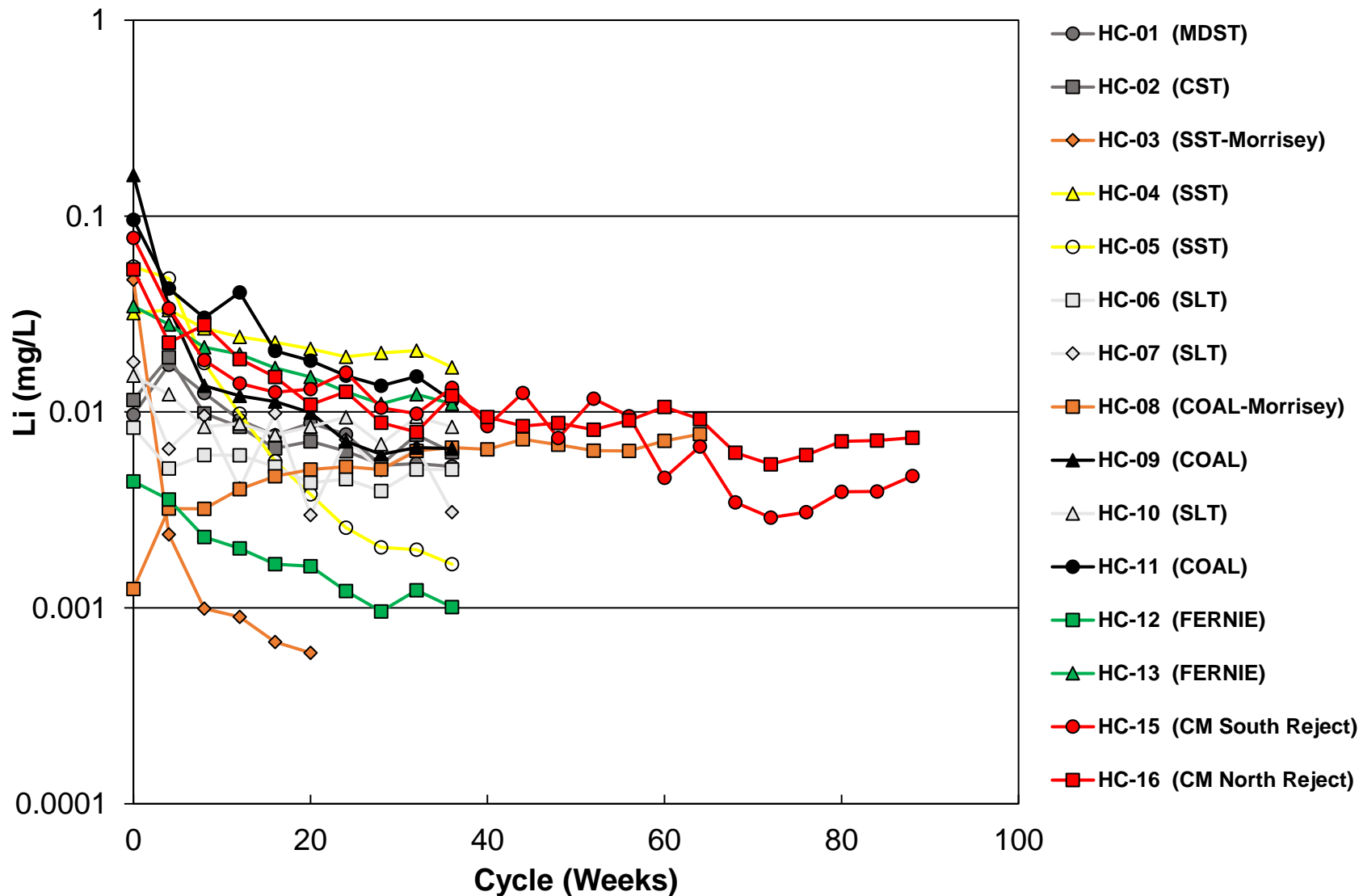
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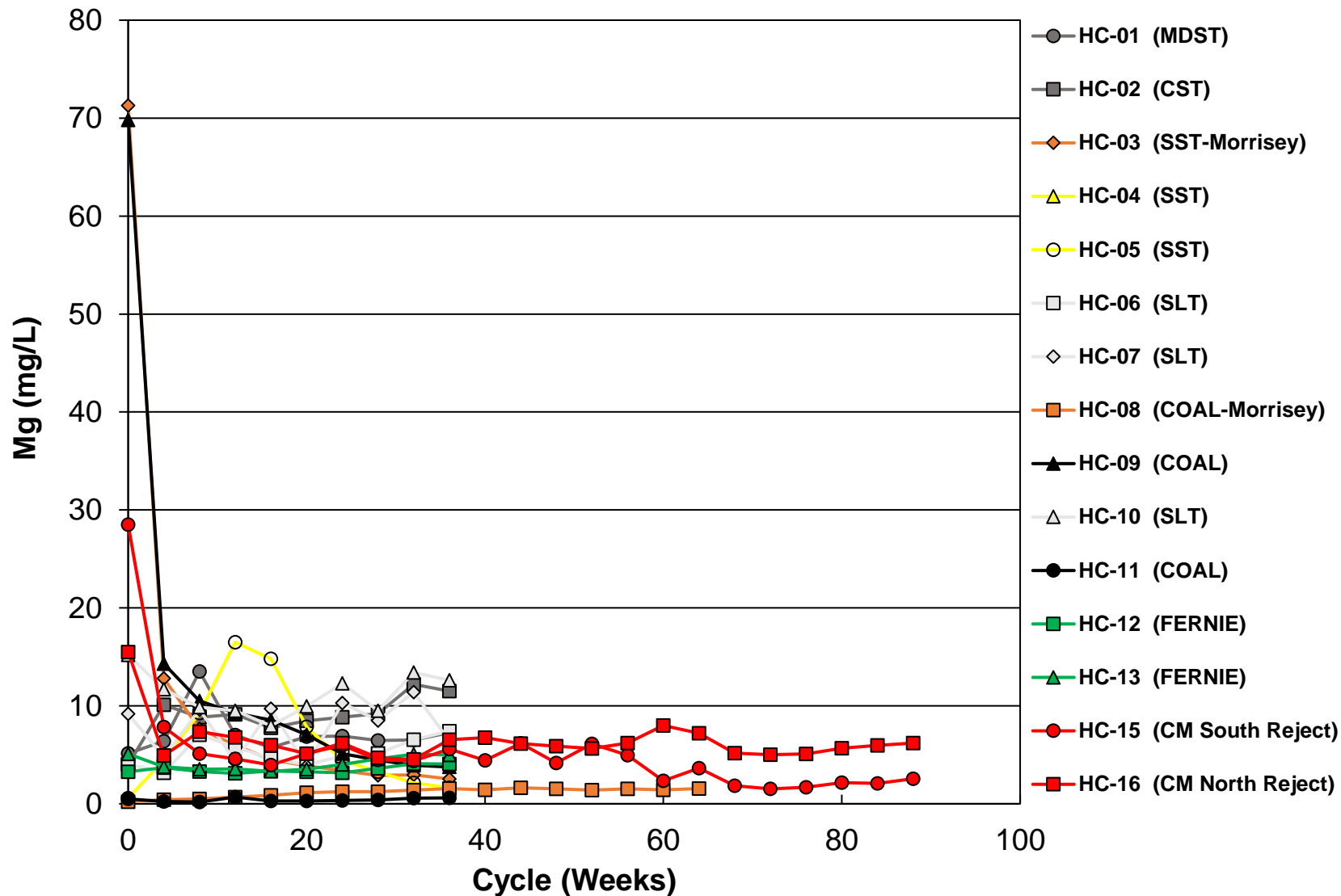
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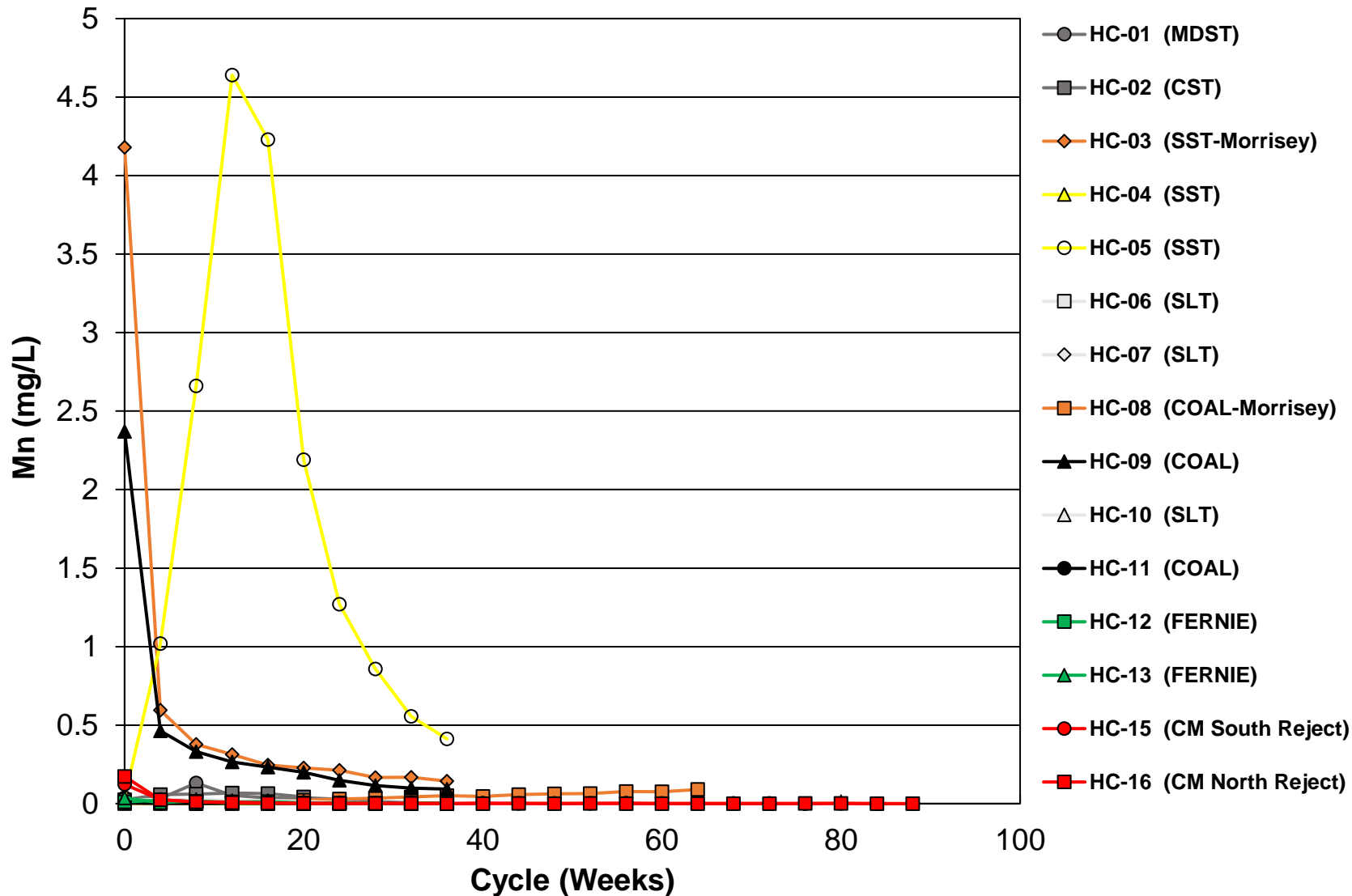
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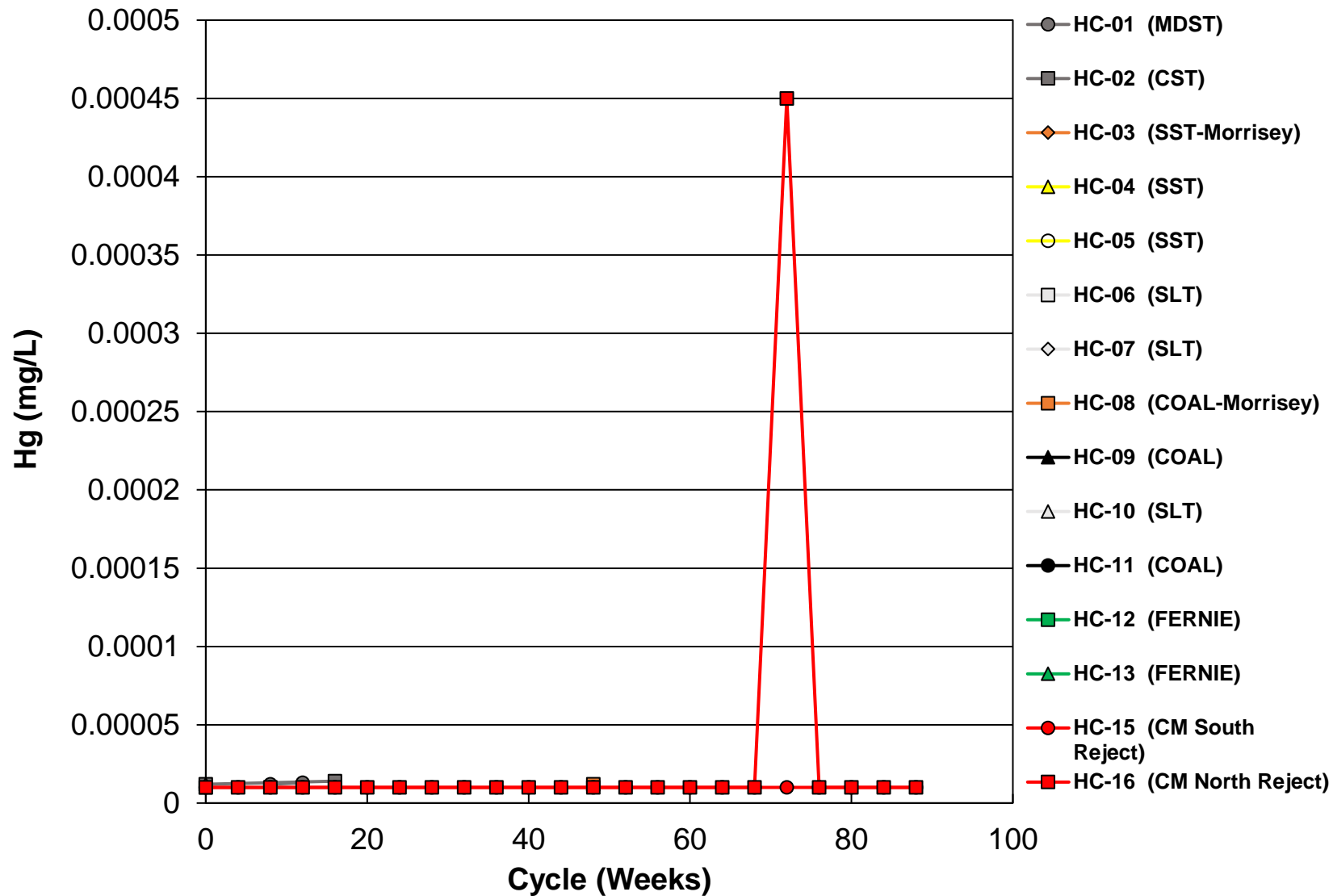
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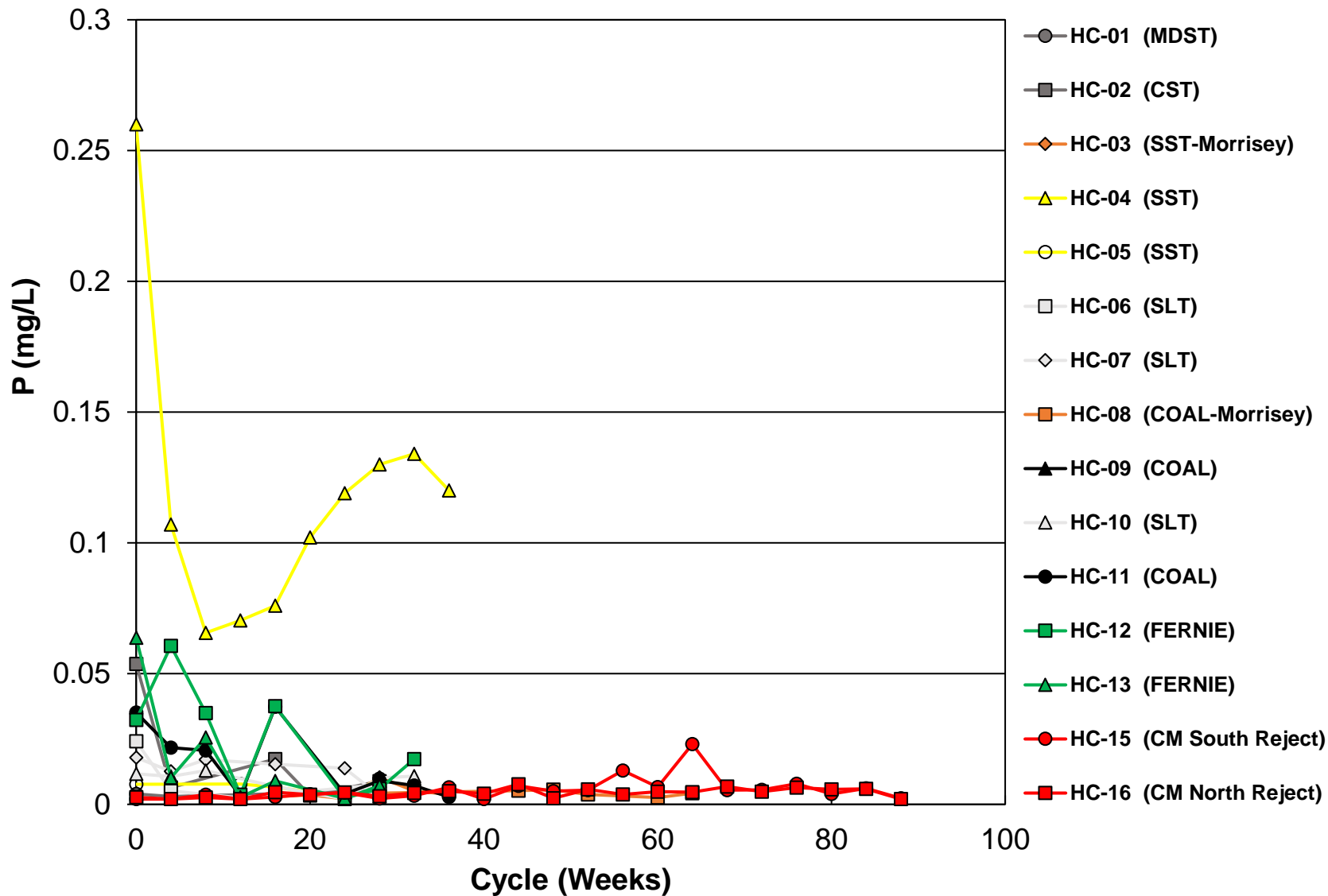
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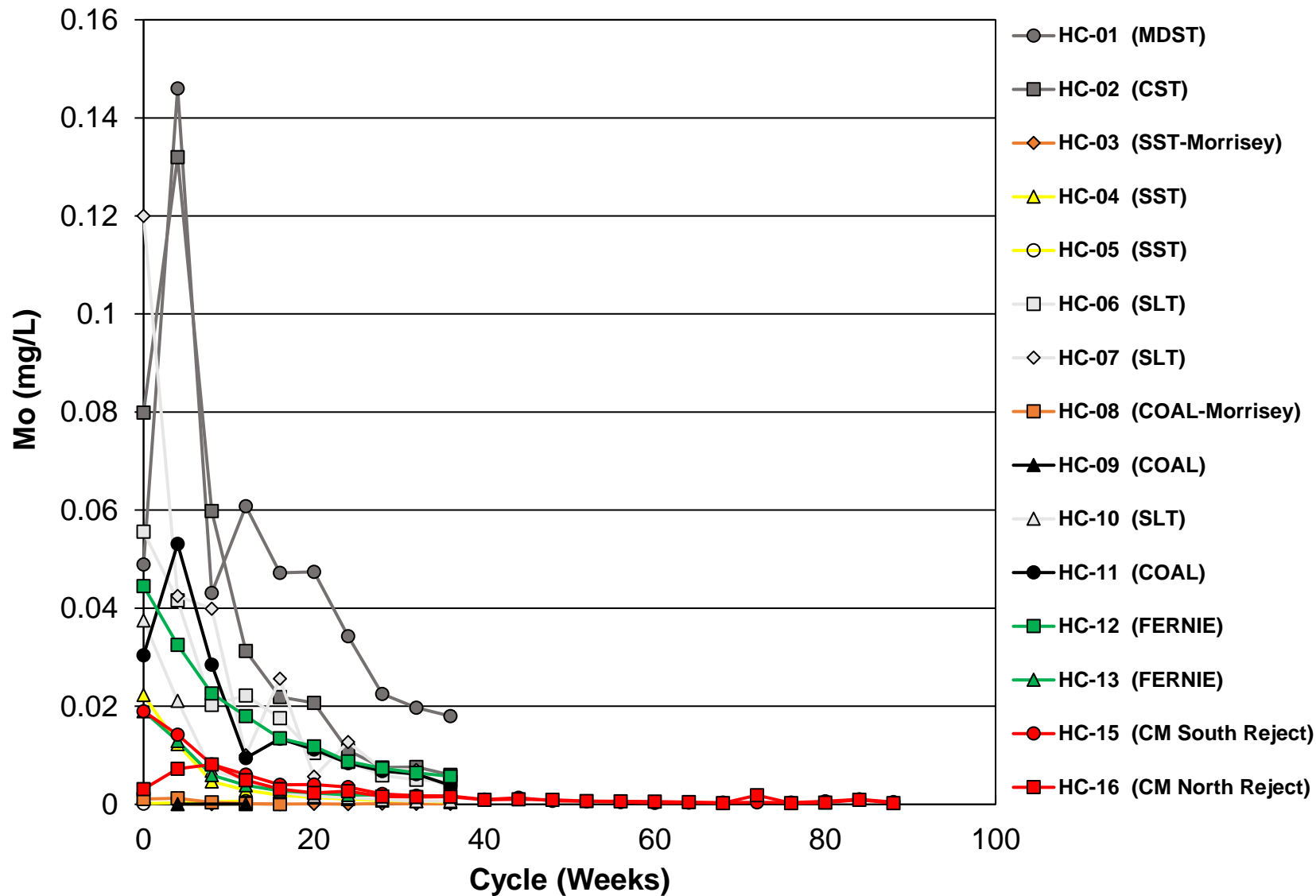
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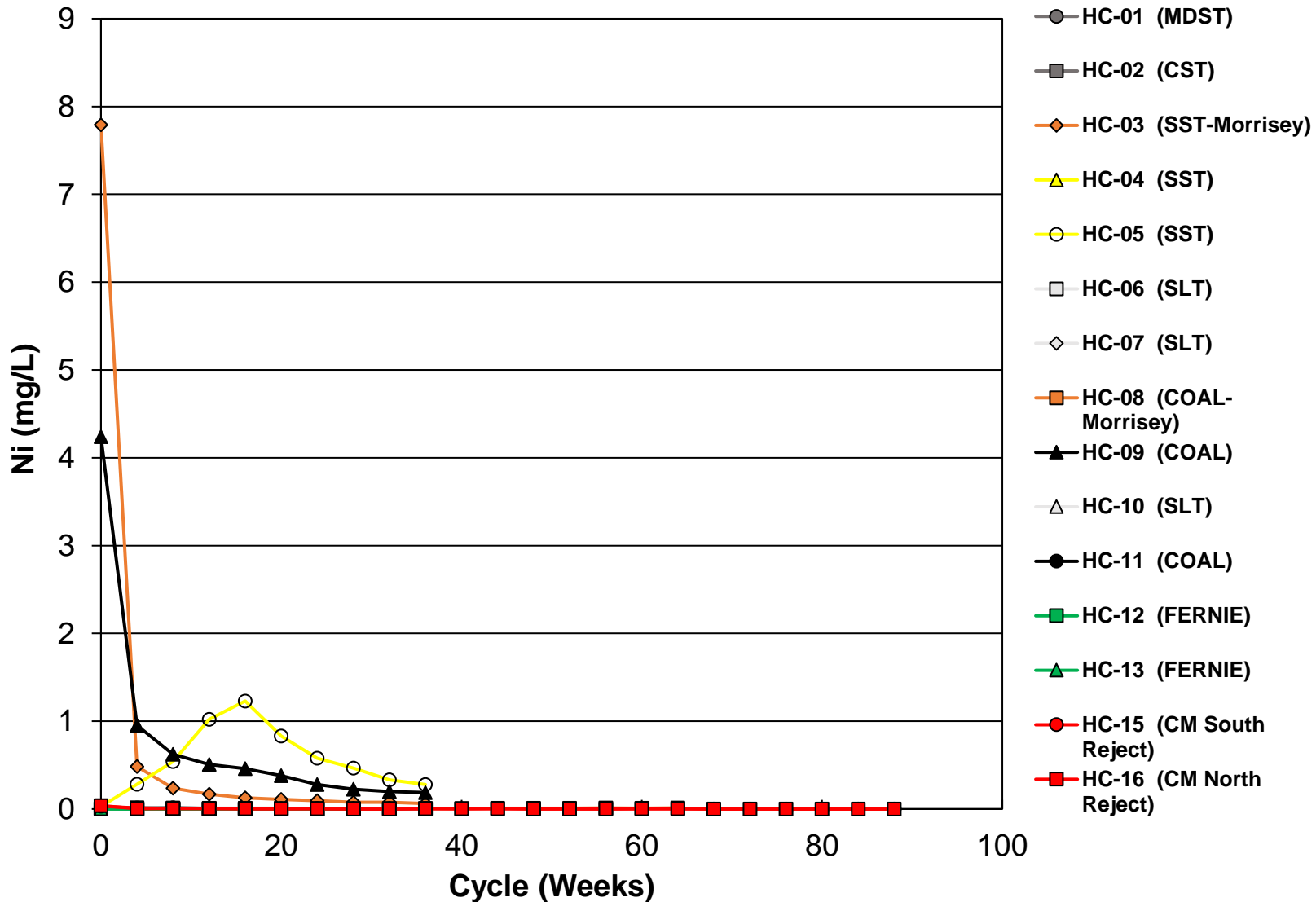
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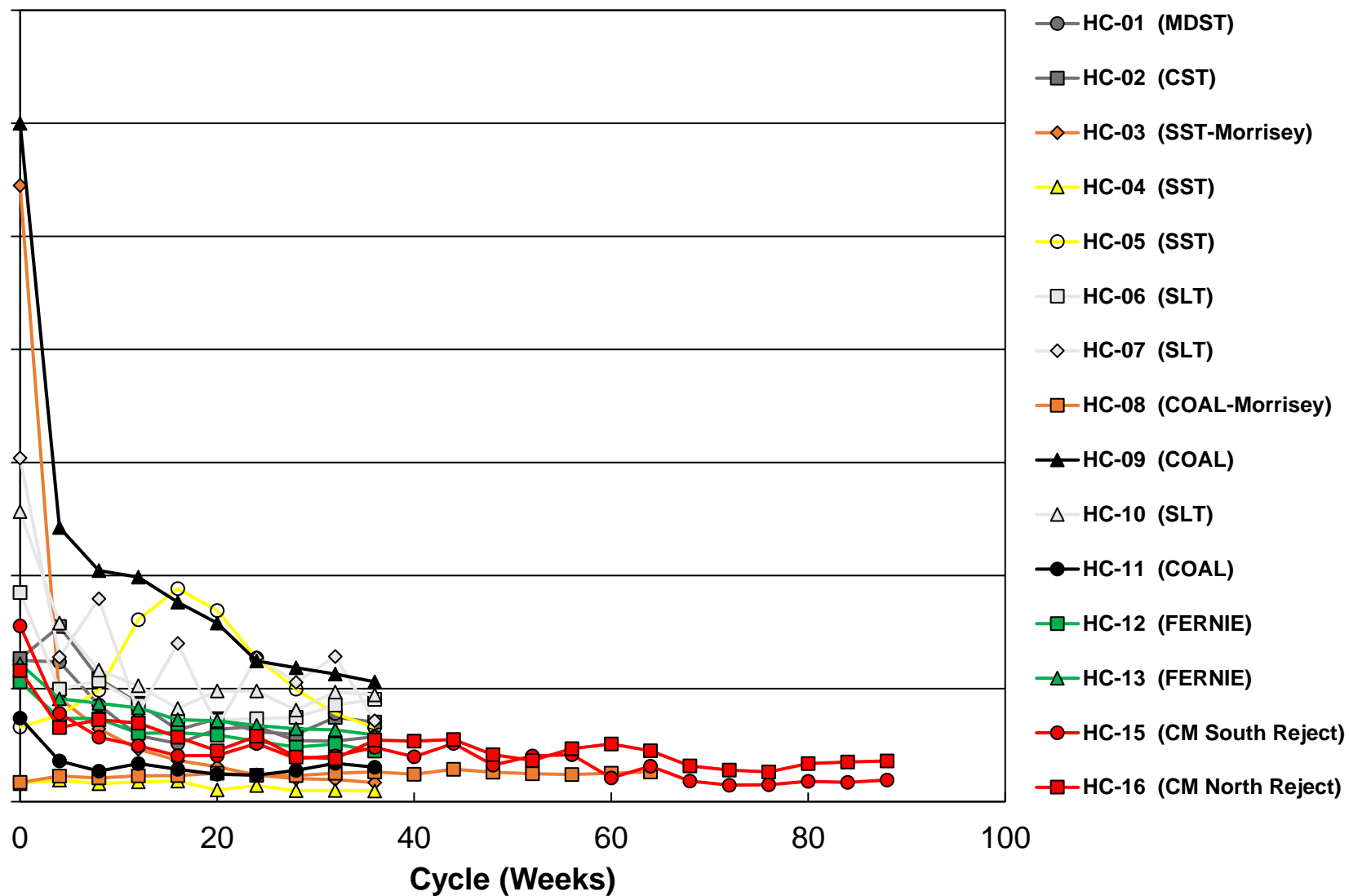
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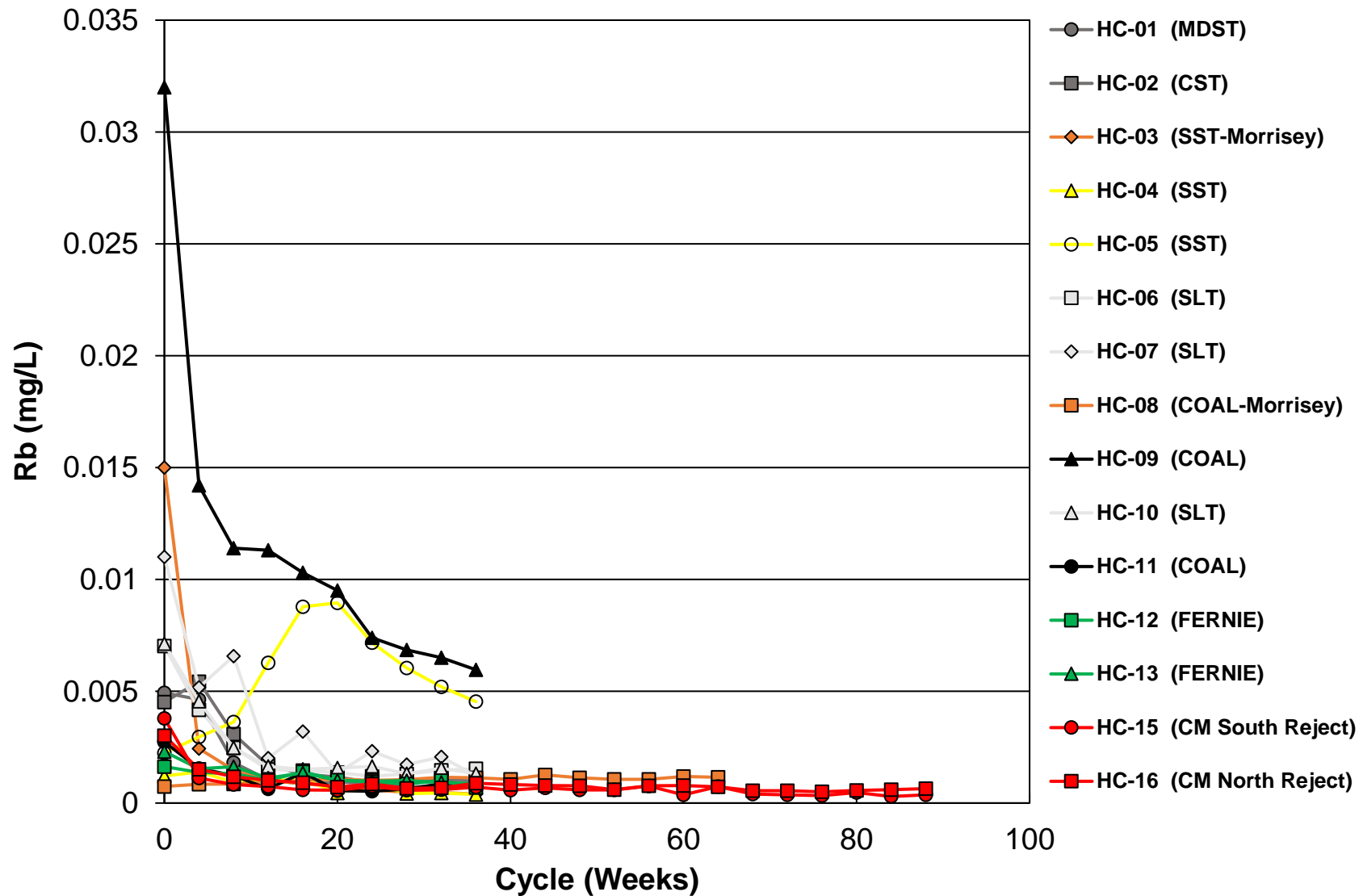
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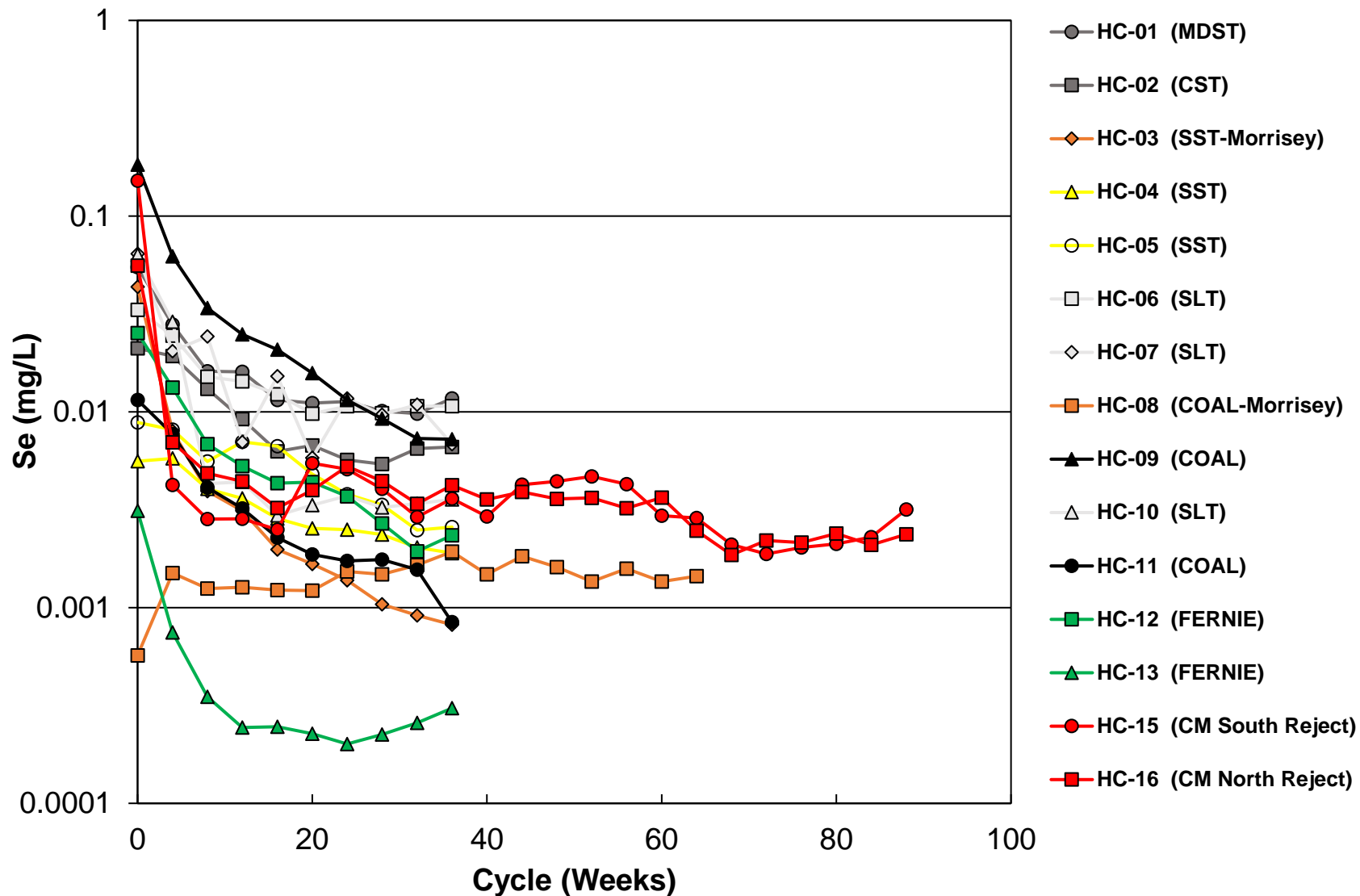
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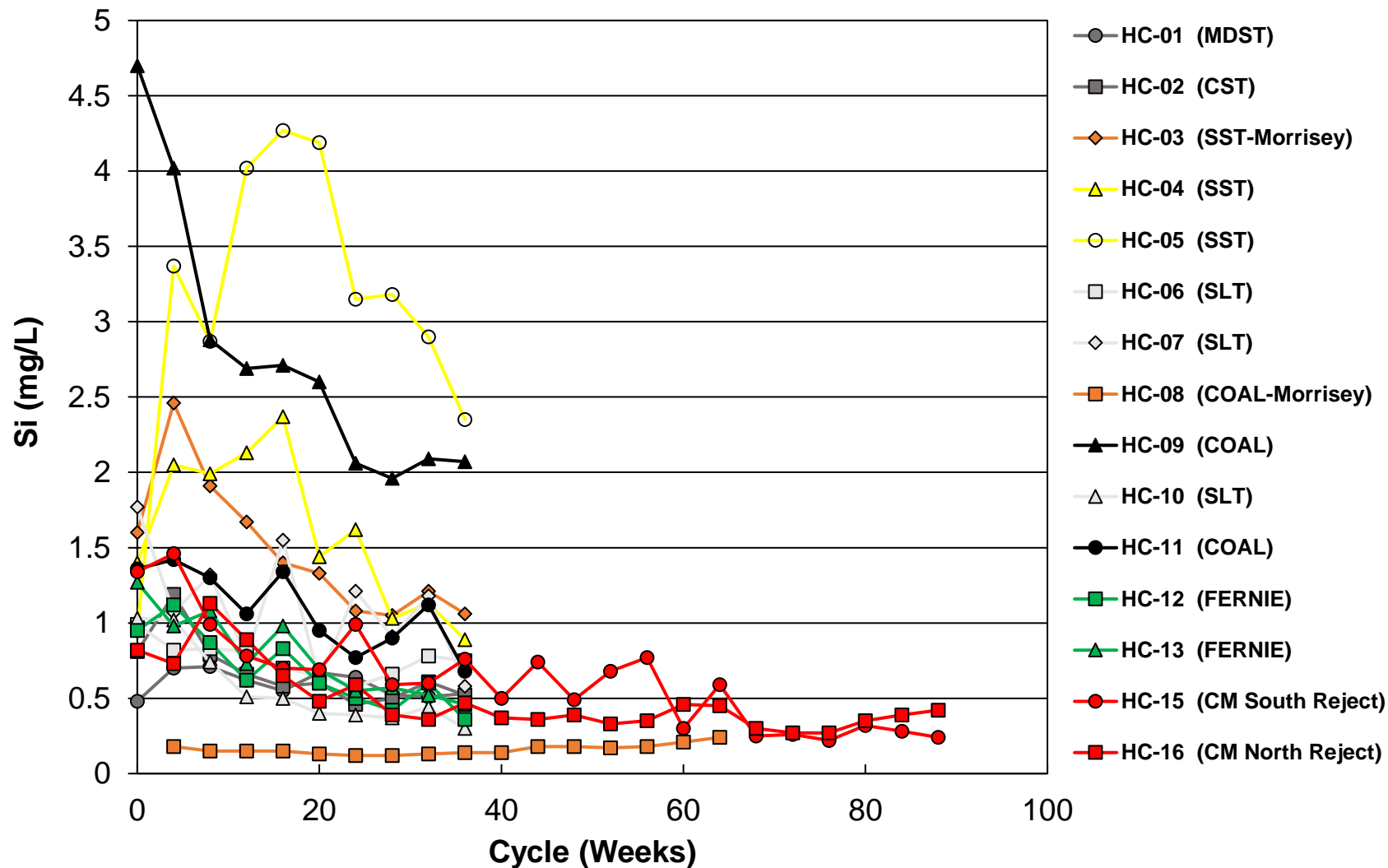
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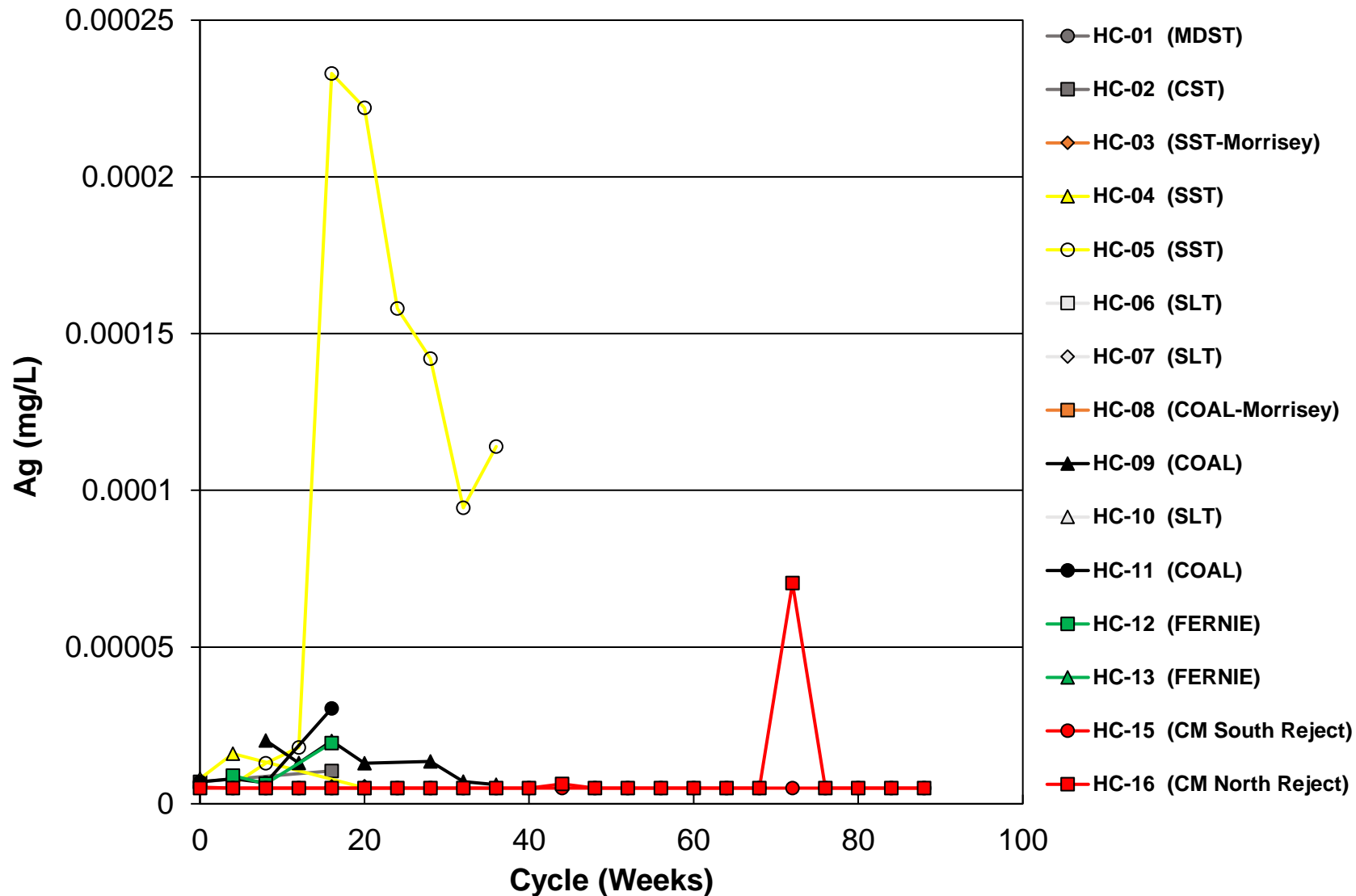
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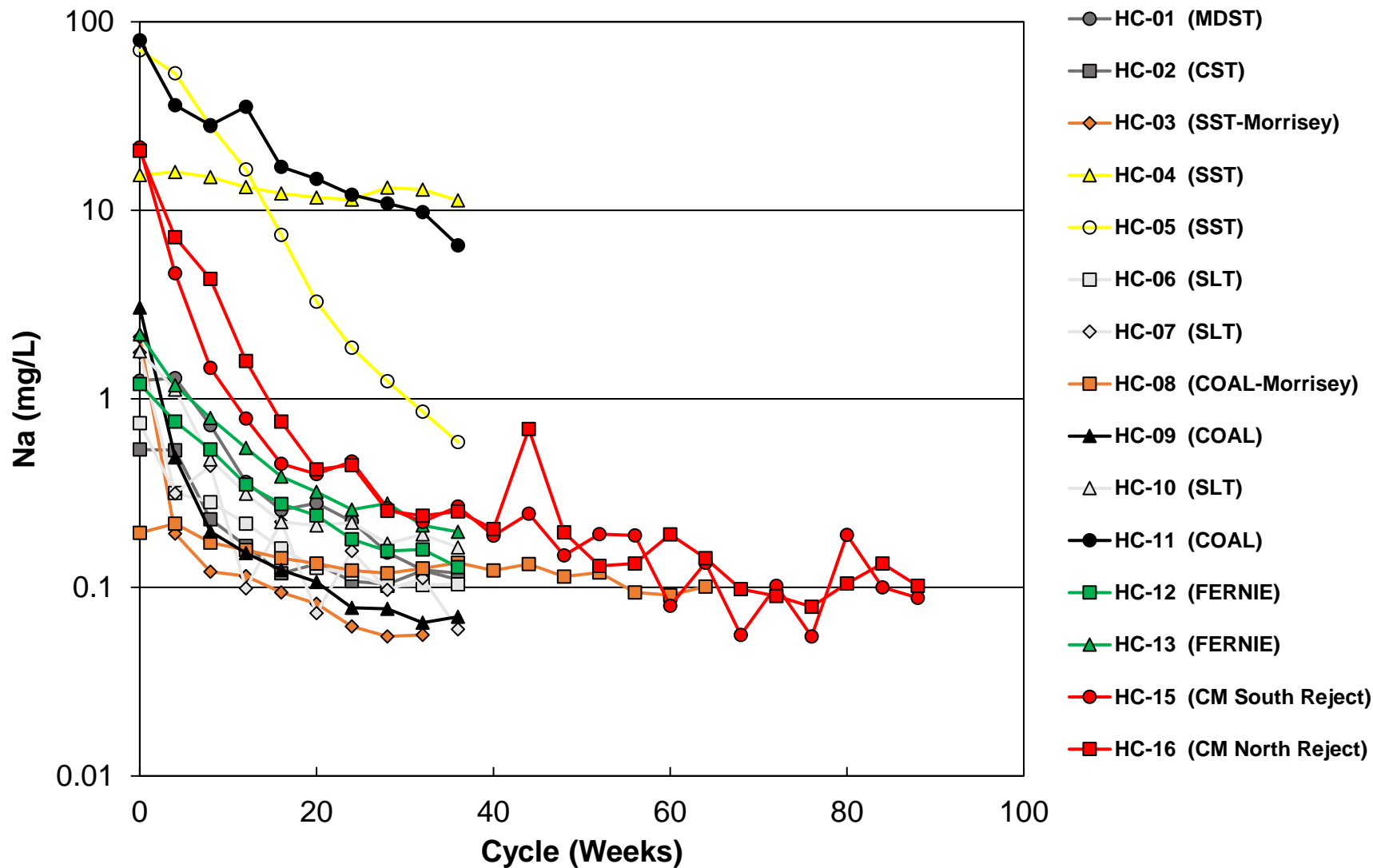
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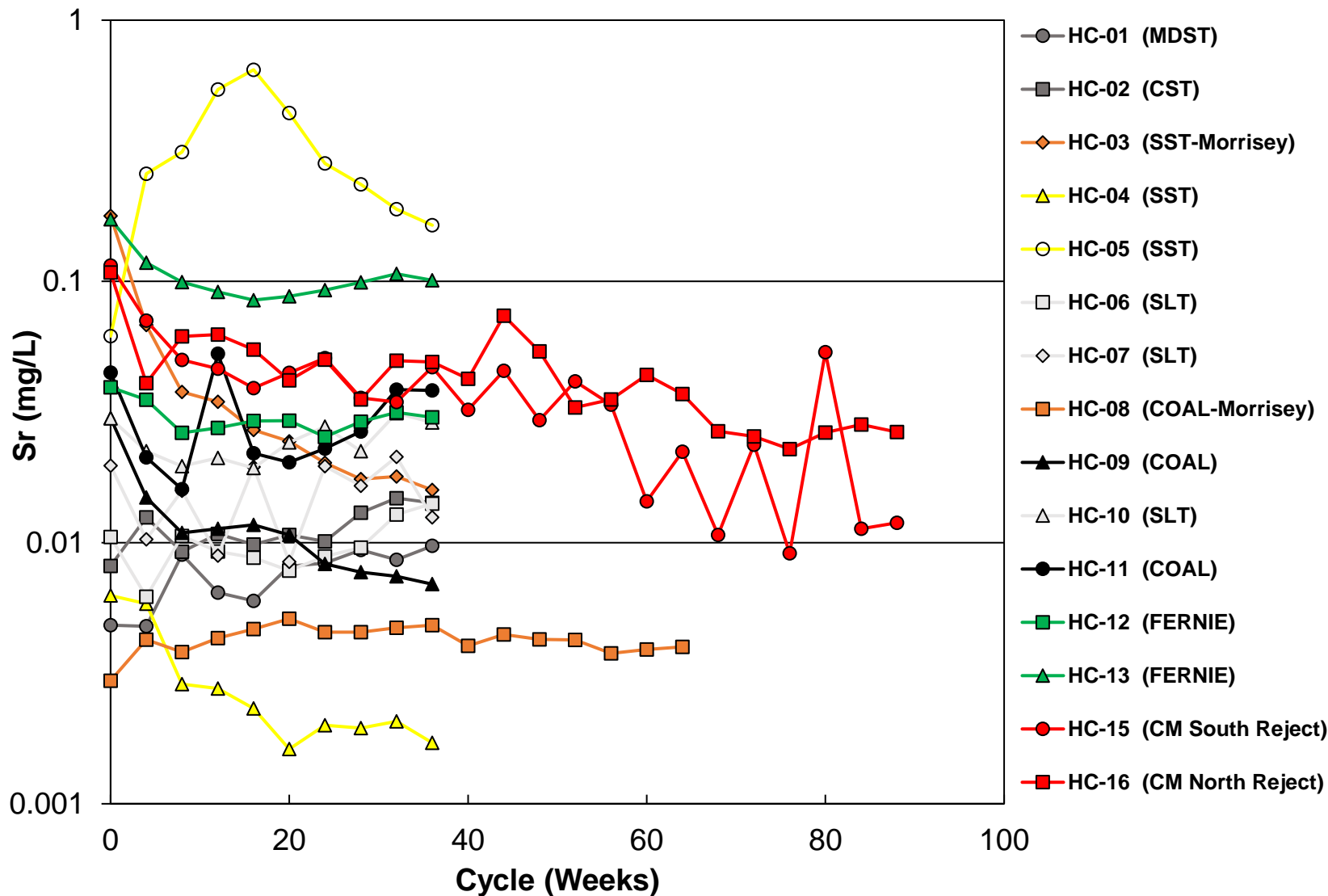
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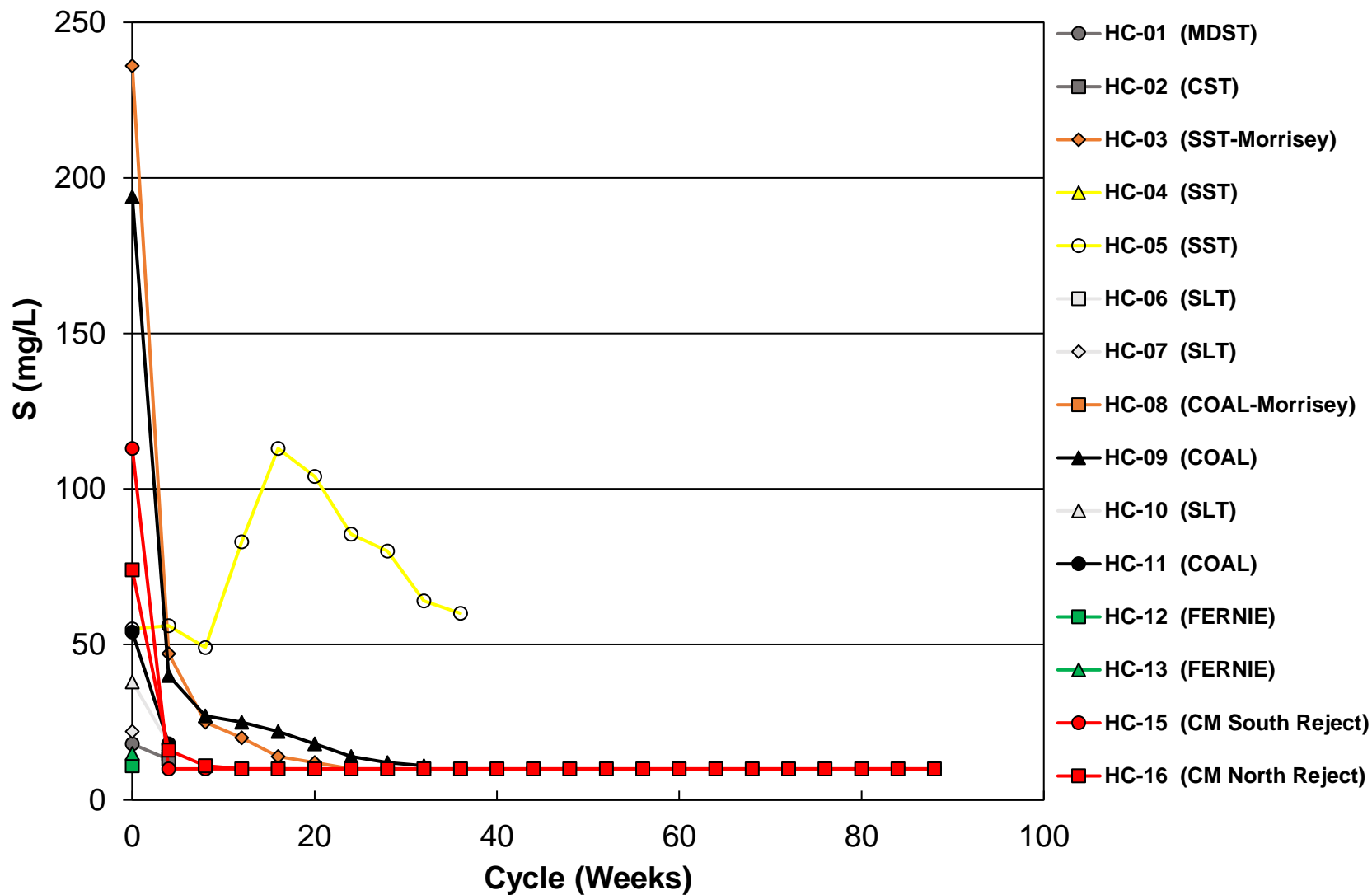
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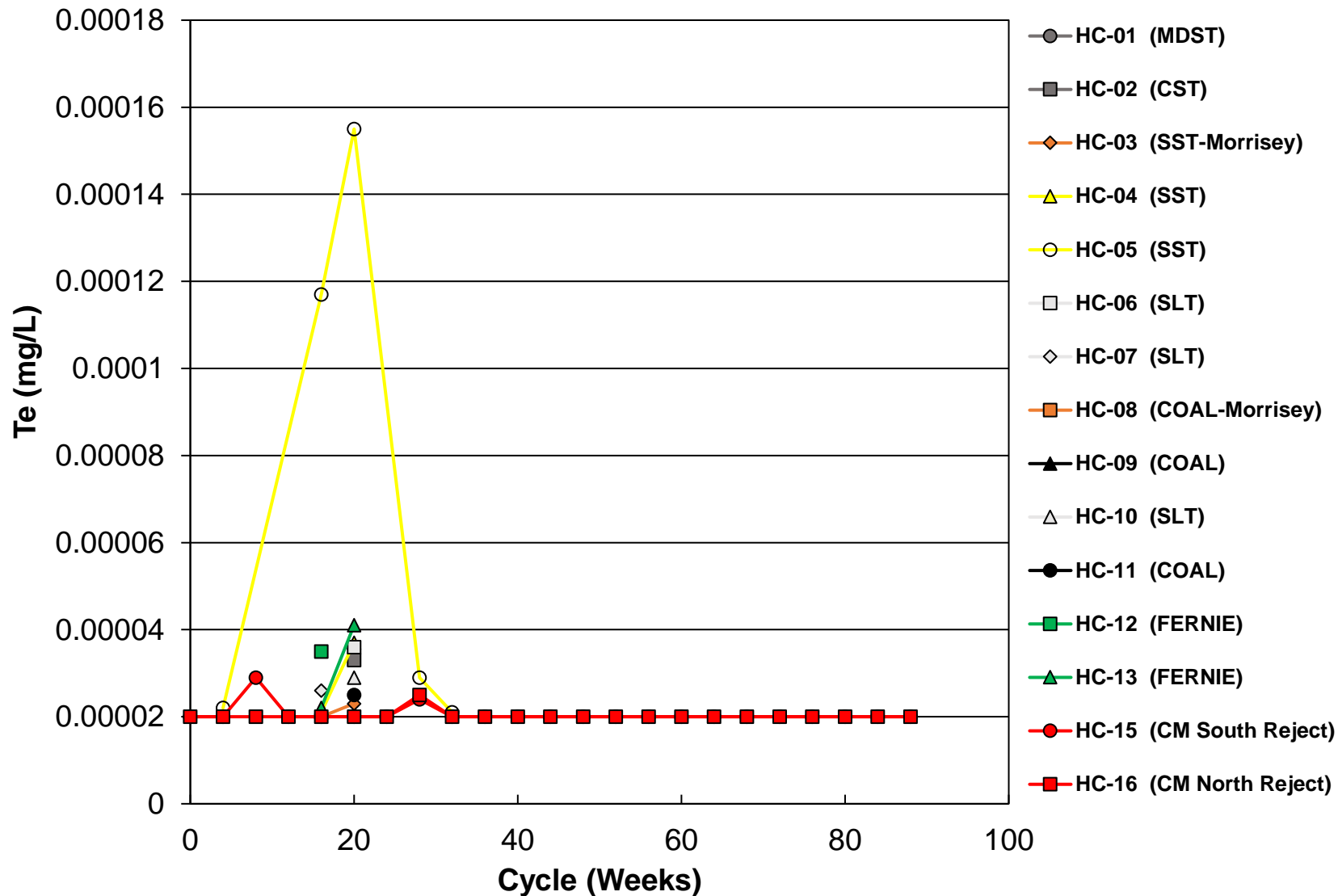
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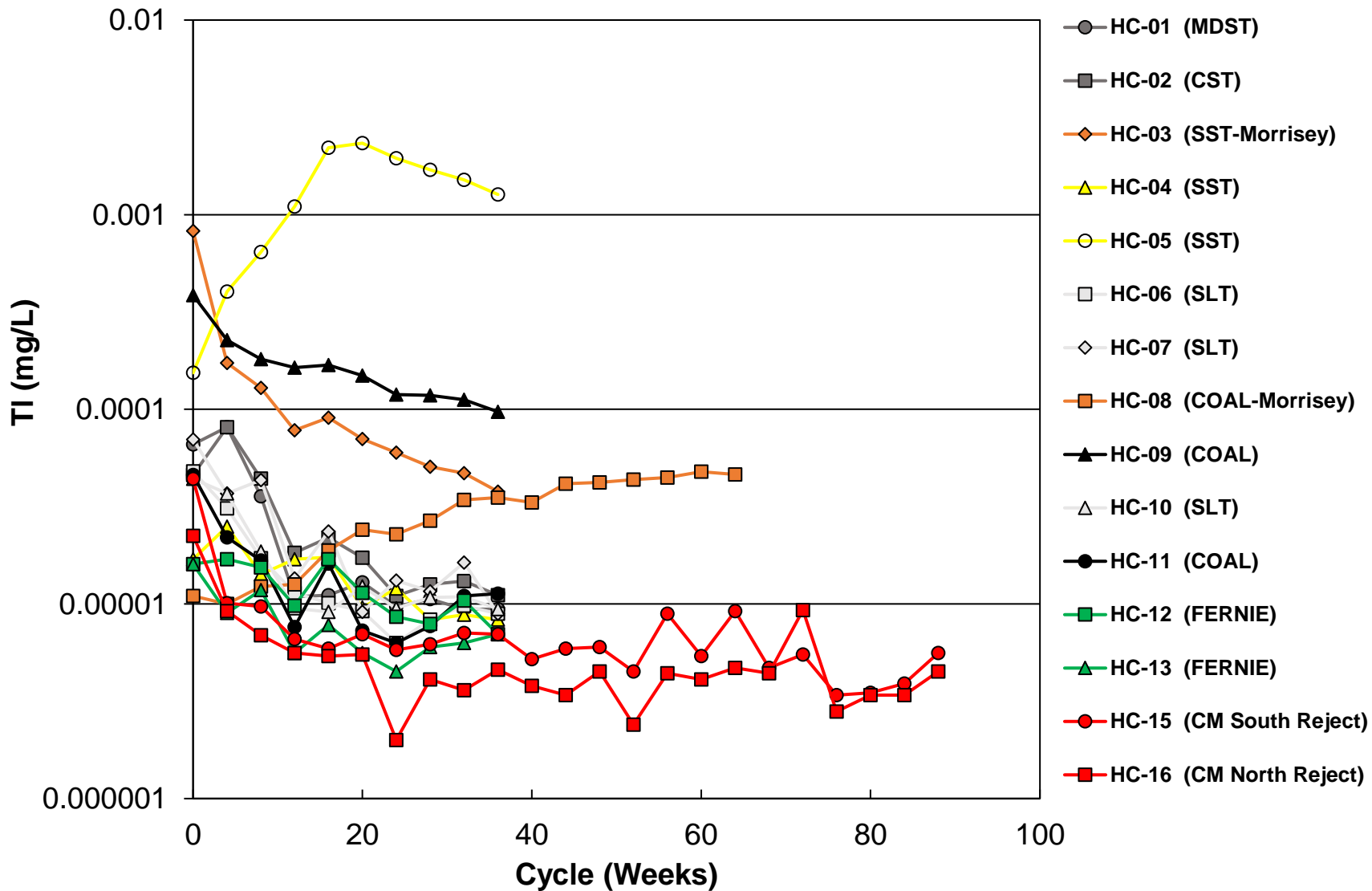
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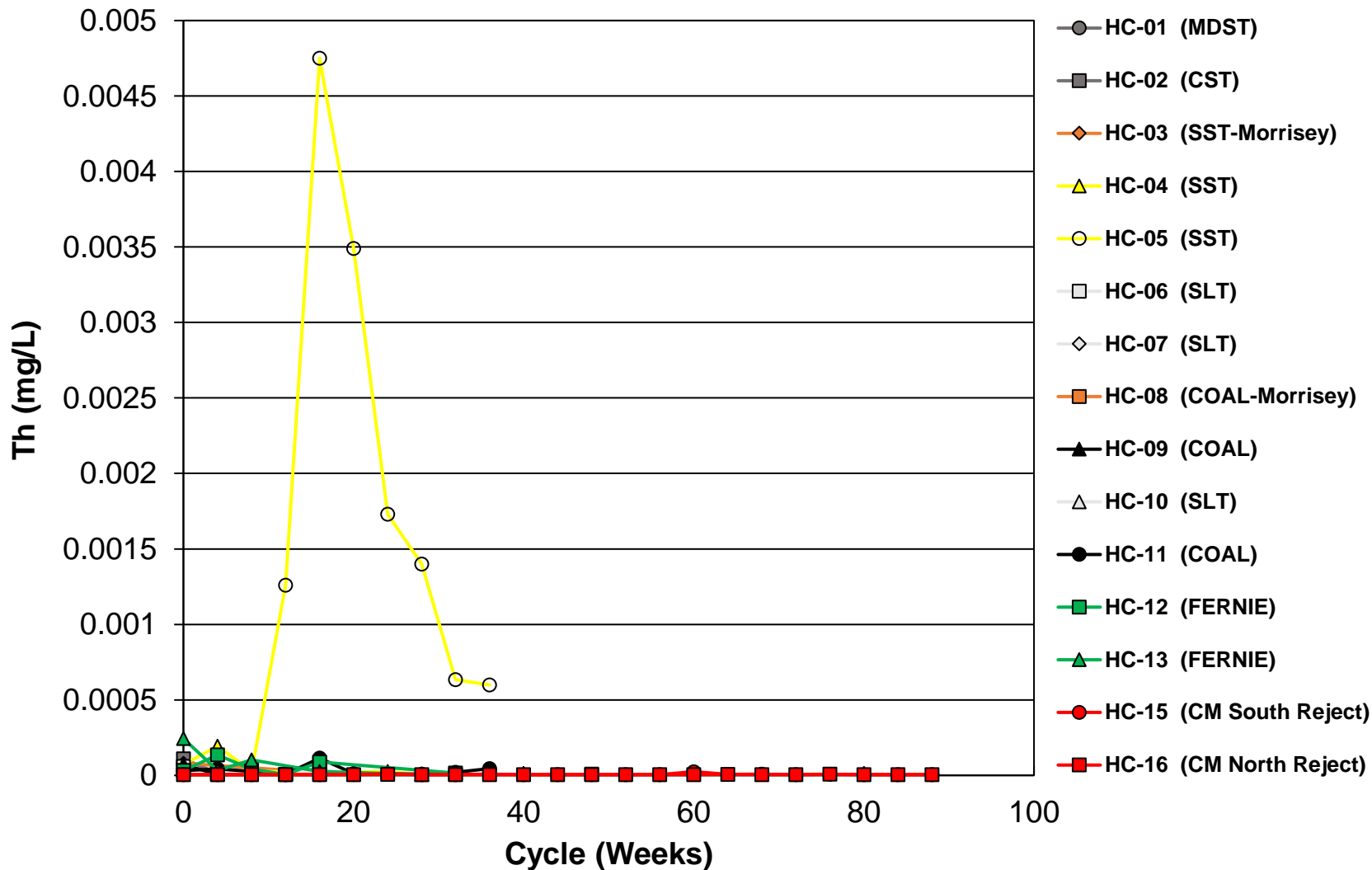
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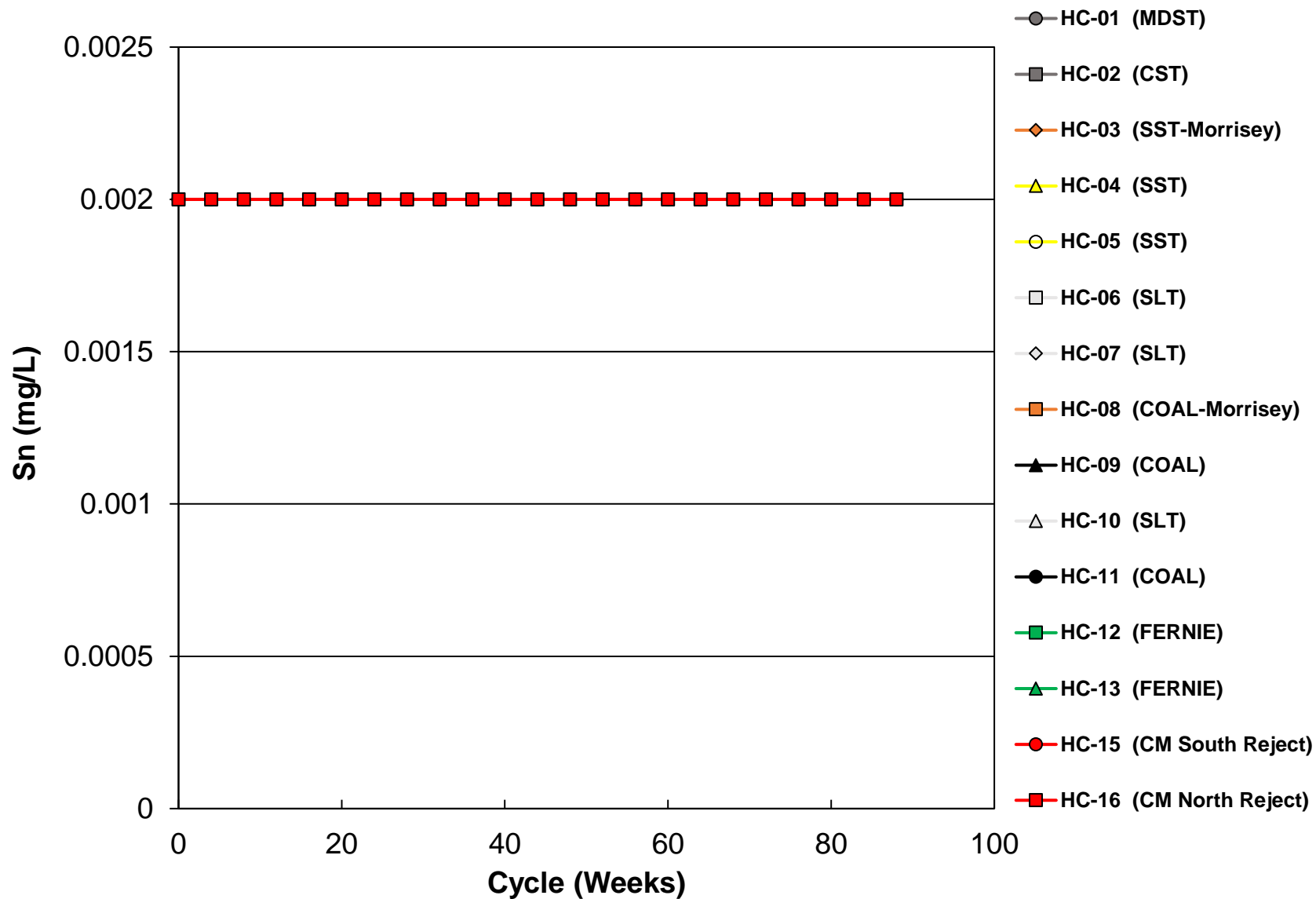
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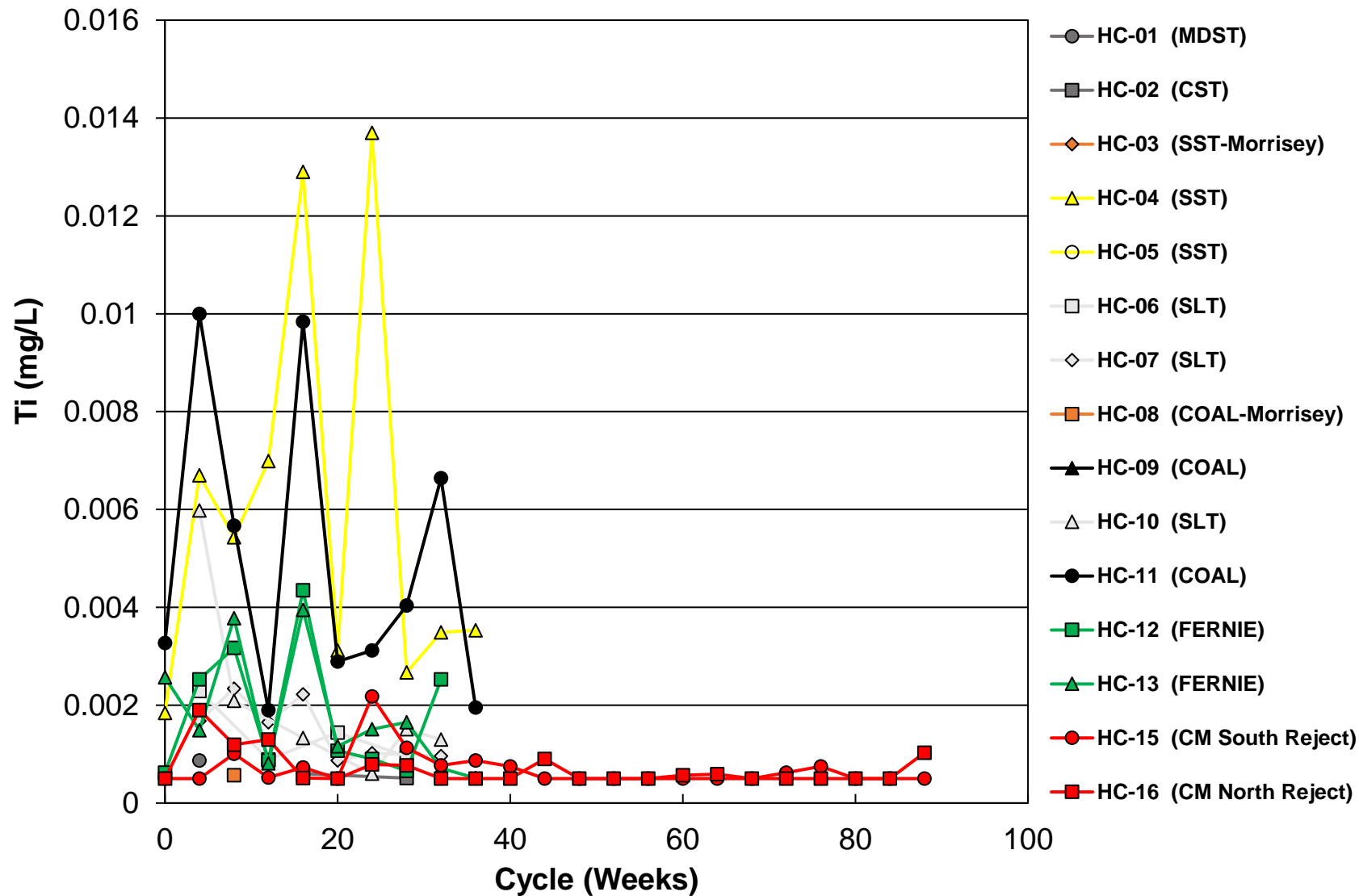
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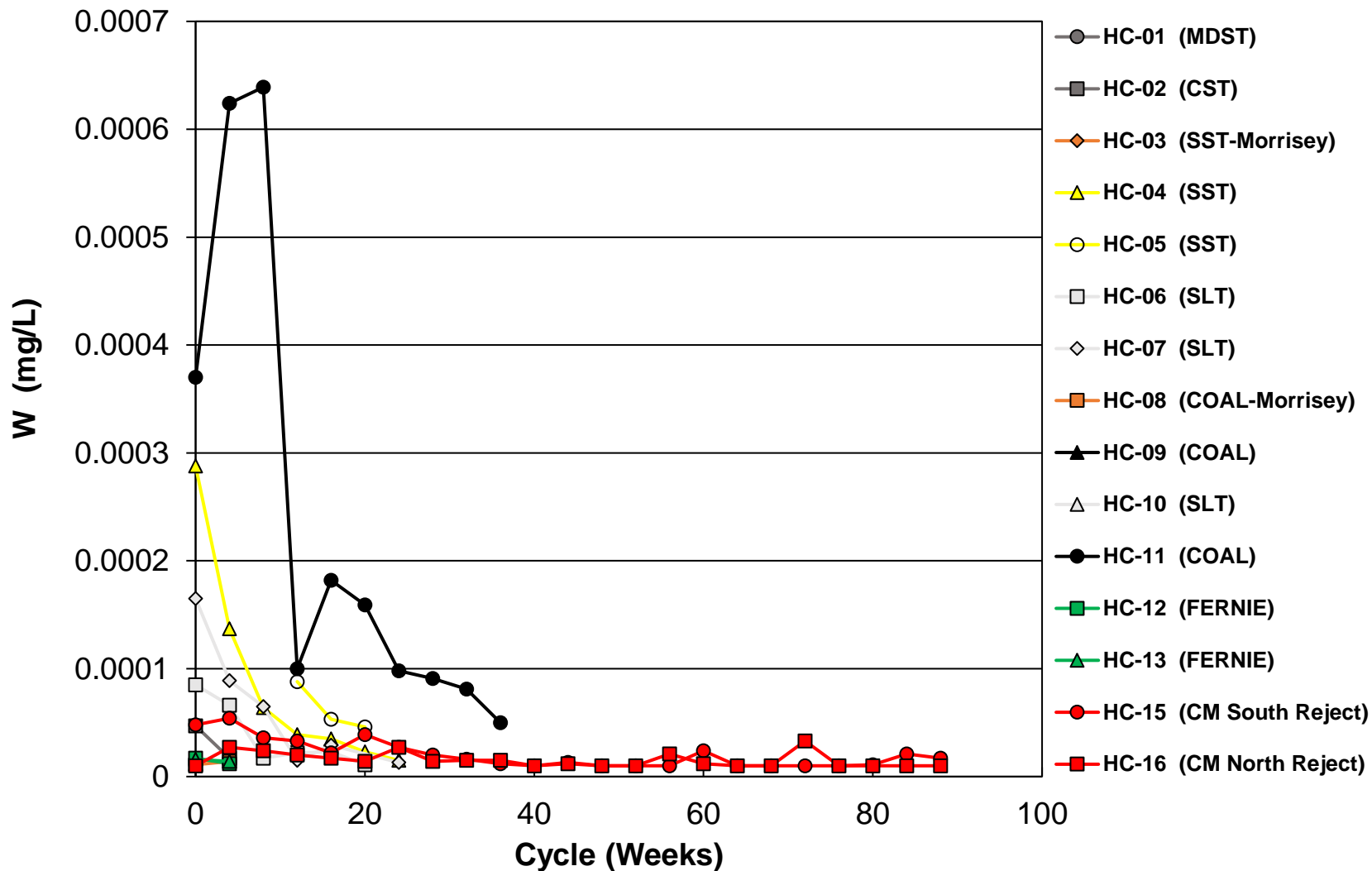
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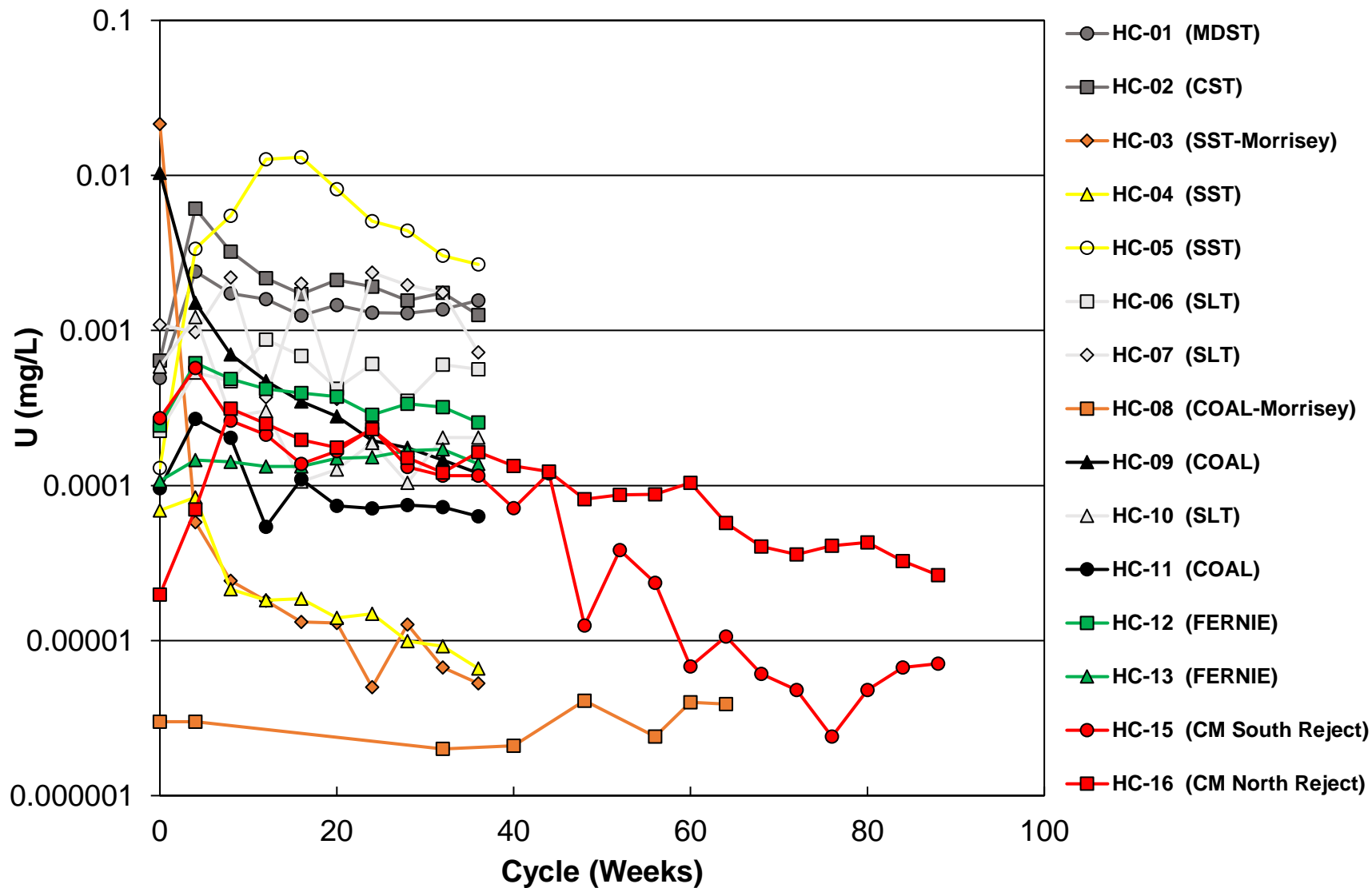
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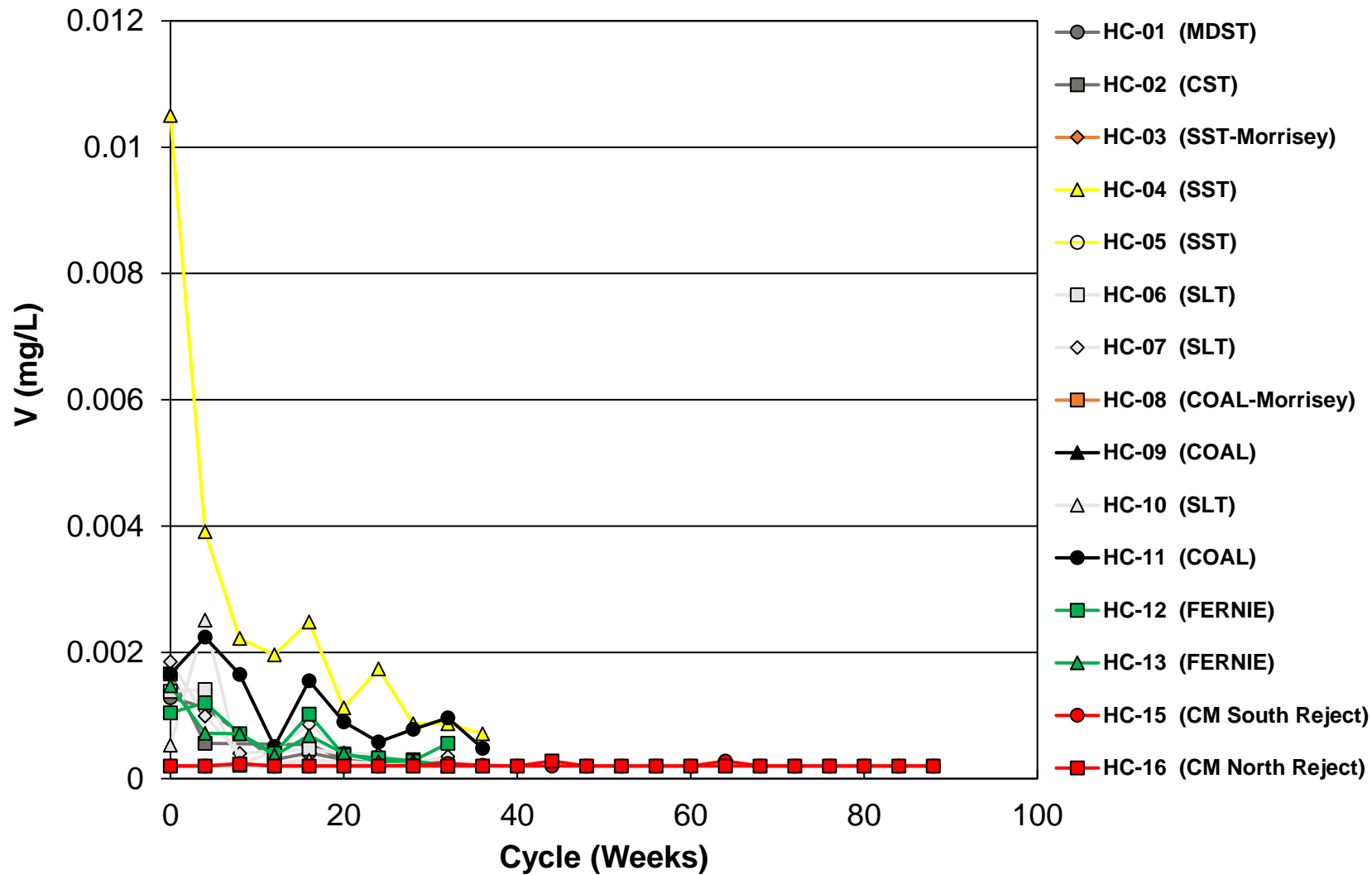
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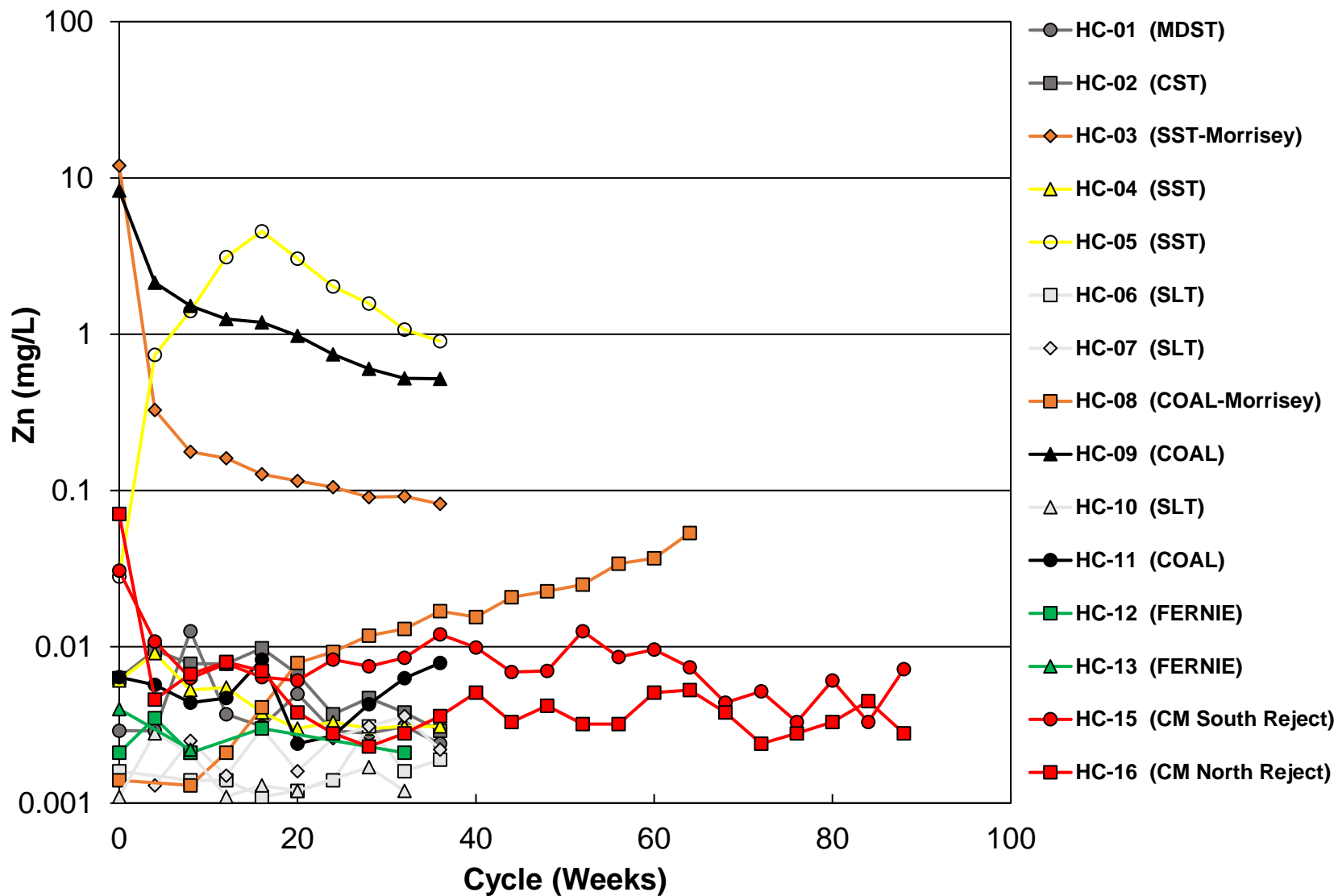
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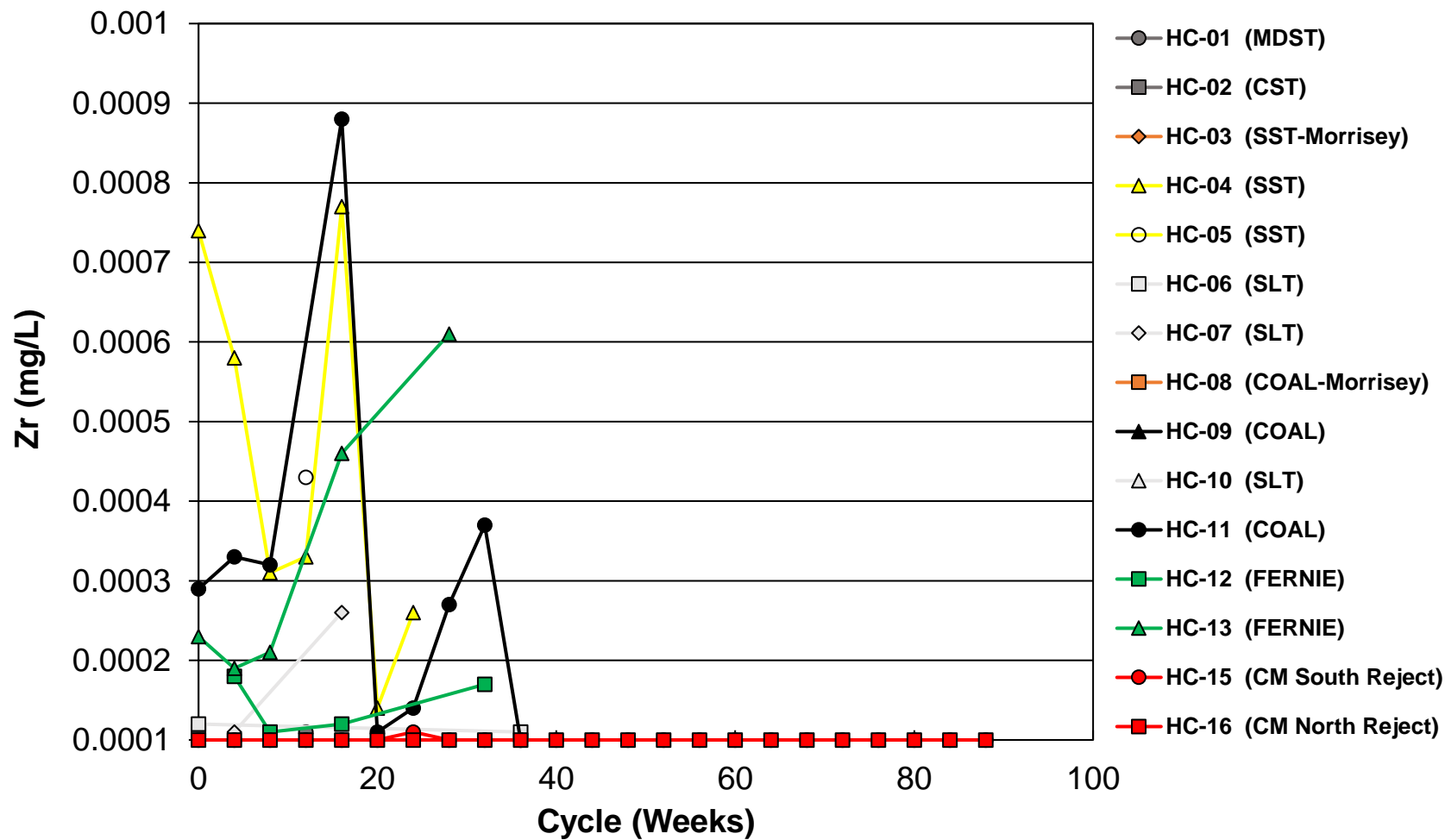
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Appendix A3: Downhole Test Data

Sample ID	HOLE	Start m	Mid m	End m	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4 %	Se ppm
11-12-11	CM 11-12-CH	36.5	36.8	37.15	9 Rider	MDST	MDST	1.33	0.06	1.9
11-12-12	CM 11-12-CH	37.15	37.4	37.6	9 Rider	COAL	COAL	59.20	0.02	1.4
11-12-15	CM 11-12-CH	39.5	39.8	40.03	10_U 1	MDST	MDST	5.76	0.01	1.5
11-12-22	CM 11-12-CH	43.98	44.2	44.5	10_U 1	COAL	COAL	1.07	0.03	1.1
11-12-27	CM 11-12-CH	48.5	49.5	50.5	10U_2	COAL	COAL	2.13	0.03	4.1
11-12-28	CM 11-12-CH	50.5	51.5	52.5	10U_1	COAL	COAL	1.14	0.07	6.8
11-12-29	CM 11-12-CH	52.5	52.8	53	10M	MDST	MDST	3.20	0.01	1.4
11-12-33	CM 11-12-CH	56.5	56.6	56.75	10M	SST	SST	2.67	0.09	1.9
11-12-35	CM 11-12-CH	58.45	58.5	58.55	10M	COAL	COAL	0.18	0.09	2.3
11-12-37	CM 11-12-CH	59.55	60.0	60.5	10L	CARB	CARB	8.14	0.07	1.8
11-12-40	CM 11-12-CH	61	61.8	62.5	10L	SLT	SLT	24.18	0.09	1.2
11-12-44	CM 11-12-CH	68.5	69.5	70.5	10L	SLT	SLT	10.93	0.12	0.7
11-12-45	CM 11-12-CH	70.5	70.7	70.85	10L	SLT	SLT	0.05	0.52	0.8

Sample ID	HOLE	Start m	Mid m	End m	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4 %	Se ppm
SAMPLE 1	CM-12-01	13.35	15.0	16.55	8U	MDST	MDST	-12.2	0.01	3.9
SAMPLE 2	CM-12-01	16.55	16.7	16.75	8U	MDST	MDST	-8.0	0.01	4.7
SAMPLE 4	CM-12-01	30	30.1	30.2	8U	SLT	SLT	-1.8	0.05	2
SAMPLE 5	CM-12-01	30.2	31.4	32.65	8U	SLT	SLT	0.0	0.05	3
SAMPLE 6	CM-12-01	32.65	32.8	32.85	8U	CARB	CARB	2.8	0.06	2.6
SAMPLE 8	CM-12-01	35.1	35.2	35.3	8 Rider	CARB	CARB	0.0	0.04	3.4
SAMPLE 9	CM-12-01	35.3	36.4	37.42	8 Rider	MDST	MDST	1.6	0.04	1.6
SAMPLE 10+11	CM-12-01	37.42	38.4	39.37	8 Rider	COAL	COAL	5.1	0.08	4.3
SAMPLE 15	CM-12-01	52.2	53.6	54.95	8 Rider	SST	SST	0.7	0.13	2.1
SAMPLE 16	CM-12-01	54.95	56.5	58	8 Rider	COAL	COAL	0.7	0.09	2.9
SAMPLE 17	CM-12-01	101	102.6	104.15	9	MDST	MDST	25.9	0.06	1.9
SAMPLE 20	CM-12-01	109.5	109.6	109.7	9	MDST	MDST	2.4	0.02	2.8
SAMPLE 21	CM-12-01	109.7	111.5	113.33	9	MDST	MDST	39.2	0.04	2.2
SAMPLE 22	CM-12-01	113.33	115.0	116.75	9	MDST	MDST	65.3	0.05	2
SAMPLE 23	CM-12-01	116.75	116.9	116.95	9 Rider	MDST	MDST	18.1	0.13	3.2
SAMPLE 25	CM-12-01	118.4	118.5	118.6	10 U_1	MDST	MDST	3.2	0.01	1.1
SAMPLE 26	CM-12-01	118.6	120.3	122	10 U_1	MDST	MDST	1.6	0.05	1.1
SAMPLE 27	CM-12-01	122	123.4	124.7	10 U_1	SST	SST	58.6	0.04	0.9
SAMPLE 28	CM-12-01	137	137.9	138.75	10 U_1	MDST/SLT	MDST/SLT	27.7	0.06	1.2
SAMPLE 29	CM-12-01	138.75	138.9	138.95	10 U_1	MDST/SLT	MDST/SLT	0.0	0.01	0.9
SAMPLE 31	CM-12-01	139.54	139.6	139.74	10 U_1	SLT	SLT	6.1	0.02	1.3
SAMPLE 32	CM-12-01	139.74	141.1	142.4	10 U_1	MIX	MIX	65.1	0.03	0.9
SAMPLE 33	CM-12-01	142.4	142.5	142.6	10 U_1	SLT	SLT	9.1	0.03	1.5
SAMPLE 35	CM-12-01	143.42	143.7	144	10 U_1	SST/SLT	SST/SLT	4.4	0.05	5.1
SAMPLE 36	CM-12-01	144	144.1	144.2	10 U_1	MDST	MDST	0.4	0.16	4.1
SAMPLE 38	CM-12-01	150.4	150.5	150.6	10 U_1	MDST	MDST	0.4	0.14	2.1
SAMPLE 39	CM-12-01	150.6	151.3	152	10M	MDST	MDST	1.2	0.06	1.2

Sample ID	HOLE	Start m	Mid m	End m	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4 %	Se ppm
CM18-03-GC-01	CM18-03-GC	3.00	4.9	6.71	9	SST	SST	4.8	0.01	4
CM18-03-GC-02	CM18-03-GC	6.71	8.2	9.75	9	SST	SST	8.0	0.01	0.9
CM18-03-GC-03	CM18-03-GC	9.75	12.5	15.31	9	SST	SST	3.2	0.01	0.6
CM18-03-GC-04	CM18-03-GC	15.31	17.3	19.20	9	SST	SST	11.2	0.01	0.6
CM18-03-GC-05	CM18-03-GC	19.20	22.3	25.30	9	SST	SST	6.4	0.01	0.2
CM18-03-GC-06	CM18-03-GC	25.3	27.2	29.15	9	SST	SST	14.4	0.01	0.3
CM18-03-GC-07	CM18-03-GC	29.15	32.2	35.2	9	SST	SST	12.2	0.01	0.6
CM18-03-GC-08	CM18-03-GC	35.2	38.2	41.14	9	SST	SST	5.8	0.01	1.8
CM18-03-GC-09	CM18-03-GC	41.14	43.9	46.63	9	SST	SST	56.0	0.01	1.3
CM18-03-GC-10	CM18-03-GC	46.63	49.7	52.73	9	SST	SST	26.6	0.01	1
CM18-03-GC-11	CM18-03-GC	52.73	55.6	58.522	9	MIX	MIX	12.8	0.01	1
CM18-03-GC-12	CM18-03-GC	58.522	61.6	64.618	9	SST	SST	18.1	0.03	1.4
CM18-03-GC-13	CM18-03-GC	64.618	64.8	64.968	9	SST	SST	15.4	0.01	0.8
CM18-03-GC-14	CM18-03-GC	64.968	66.6	68.17	9	SLT	SLT	16.0	0.01	2.1
CM18-03-GC-15	CM18-03-GC	68.17	71.1	74.11	9	SLT	SLT	187.2	0.01	1.8
CM18-03-GC-16	CM18-03-GC	74.11	77.0	79.858	9	SLT	SLT	74.6	0.01	1.3
CM18-03-GC-17	CM18-03-GC	79.858	81.4	82.906	9	SLT	SLT	25.4	0.04	1.8
CM18-03-GC-18	CM18-03-GC	82.906	86.0	89	9	MDST	MDST	77.1	0.03	1.6
CM18-03-GC-19	CM18-03-GC	89	92.0	94.98	9	MDST	MDST	17.5	0.06	1.4
CM18-03-GC-20	CM18-03-GC	94.98	96.6	98.146	9	MDST	MDST	65.1	0.06	1.3
CM18-03-GC-21	CM18-03-GC	98.146	101.1	103.99	9	MDST	MDST	25.6	0.06	1.7
CM18-03-GC-25	CM18-03-GC	105.24	106.2	107.09	9	MDST	MDST	2.8	0.05	2.5
CM18-03-GC-29	CM18-03-GC	110.4	111.9	113.39	9R	CST	CST	20.2	0.05	2.6
CM18-03-GC-30	CM18-03-GC	113.39	114.9	116.44	9R	CST	CST	67.7	0.03	2.5
CM18-03-GC-31	CM18-03-GC	116.44	118.0	119.5	9R	CST	CST	40.8	0.05	1.7
CM18-03-GC-32	CM18-03-GC	119.5	119.9	120.35	9R	CST	CST	28.1	0.1	2.3
CM18-03-GC-36	CM18-03-GC	122.5	124.4	126.35	10U	MIX	MIX	0.7	0.12	2.1
CM18-03-GC-37	CM18-03-GC	126.35	129.1	131.75	10U	SST/SLT	SST/SLT	32.5	0.05	1
CM18-03-GC-38	CM18-03-GC	131.75	134.5	137.2	10U	SST/SLT	SST/SLT	93.1	0.03	0.8
CM18-03-GC-39	CM18-03-GC	137.2	140.1	142.95	10U	SST	SST	118.1	0.02	0.8
CM18-03-GC-40	CM18-03-GC	142.95	144.2	145.35	10U	MIX	MIX	22.7	0.03	1.2
CM18-03-GC-41	CM18-03-GC	145.35	145.5	145.55	10U	SLT	SLT	30.7	0.03	1.4
CM18-03-GC-43	CM18-03-GC	146.61	146.7	146.88	10U	SLT	SLT	20.2	0.01	2.5
CM18-03-GC-44	CM18-03-GC	146.88	147.1	147.22	10U	MIX	MIX	2.1	0.06	4.7
CM18-03-GC-45	CM18-03-GC	147.22	147.3	147.37	10U	CCST	CCST	0.3	0.24	7.5
CM18-03-GC-47	CM18-03-GC	155.35	155.5	155.6	10U	CCST	CCST	0.5	0.12	0.8
CM18-03-GC-48	CM18-03-GC	155.6	158.5	161.3	10M	CST	CST	0.6	0.11	1.9
CM18-03-GC-50	CM18-03-GC	161.75	164.5	167.3	10L	MIX	MIX	23.0	0.07	1.6
CM18-03-GC-51	CM18-03-GC	167.3	169.2	171.05	10L	CST/SST	CST/SST	26.4	0.09	1
CM18-03-GC-52	CM18-03-GC	171.05	173.0	174.85	10L	SST/SLT	SST/SLT	8.0	0.19	0.6
CM18-03-GC-53	CM18-03-GC	174.85	175.0	175.05	10L	SLT	SLT	0.0	1.11	1.5
CM18-03-GC-55	CM18-03-GC	176.42	176.5	176.55	Moose	CST	CST	0.1	0.36	1.3
CM18-03-GC-56	CM18-03-GC	176.55	179.4	182.15	Moose	SST	SST	0.8	0.37	0.7
CM18-03-GC-57	CM18-03-GC	182.15	183.7	185.3	Moose	CST/SST	CST/SST	0.7	0.23	1.6
CM18-03-GC-58	CM18-03-GC	185.3	188.0	190.65	Moose	SST	SST	0.5	0.41	0.3
CM18-03-GC-59	CM18-03-GC	190.65	191.0	191.4	Moose	MIX	MIX	0.2	2.4	0.9
CM18-03-GC-60	CM18-03-GC	191.4	191.5	191.55	Moose	CST	CST	0.1	0.2	1
CM18-03-GC-61	CM18-03-GC	191.55	191.8	192.1	Moose	COAL	COAL	0.5	0.12	1.1
CM18-03-GC-62	CM18-03-GC	192.1	192.2	192.3	Below Moose	SST	SST	2.9	0.02	0.1
CM18-03-GC-63	CM18-03-GC	192.3	194.8	197.3	Below Moose	SST	SST	1.4	0.1	0.2

Sample ID	HOLE	Start m	Mid m	End m	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4 %	Se ppm
CM18-05-GC2-01	CM18-05-GC2	5.85	7.4	9.03	9	SST	SST	1.6	0.04	0.6
CM18-05-GC2-02	CM18-05-GC2	9.03	11.0	13.03	9	SST	SST	6.5	0.07	0.8
CM18-05-GC2-03	CM18-05-GC2	13.03	15.8	18.48	9	SST	SST	5.5	0.07	1.4
CM18-05-GC2-04	CM18-05-GC2	18.48	21.4	24.4	9	SST	SST	8.8	0.02	0.6
CM18-05-GC2-05	CM18-05-GC2	24.4	26.9	29.38	9	SST	SST	10.4	0.05	1.1
CM18-05-GC2-06	CM18-05-GC2	29.38	32.1	34.88	9	SST/SLT	SST/SLT	37.6	0.06	1
CM18-05-GC2-07	CM18-05-GC2	34.88	37.2	39.48	9	SST/SLT	SST/SLT	98.1	0.02	1.7
CM18-05-GC2-08	CM18-05-GC2	39.48	41.9	44.38	9	SST/SLT	SST/SLT	60.2	0.05	1.1
CM18-05-GC2-09	CM18-05-GC2	44.38	46.9	49.48	9	CST	CST	26.9	0.07	1.3
CM18-05-GC2-10	CM18-05-GC2	49.48	51.7	53.88	9	CST	CST	54.4	0.05	1.3
CM18-05-GC2-11	CM18-05-GC2	53.88	55.6	57.28	9	CST/SST	CST/SST	47.7	0.05	1.3
CM18-05-GC2-12	CM18-05-GC2	57.28	57.4	57.48	9	CST	CST	4.0	0.06	2.2
CM18-05-GC2-13	CM18-05-GC2	57.48	60.6	63.63	9	COAL	COAL	5.4	0.05	0.4
CM18-05-GC2-14	CM18-05-GC2	63.63	63.7	63.78	9L	CST	CST	4.2	0.01	2.2
CM18-05-GC2-15	CM18-05-GC2	63.78	66.6	69.48	9L	CST/SLT	CST/SLT	35.7	0.05	2.5
CM18-05-GC2-16	CM18-05-GC2	69.48	72.5	75.48	9L	SLT	SLT	54.4	0.06	1.8
CM18-05-GC2-17	CM18-05-GC2	75.48	77.6	79.68	9L	CST/SLT	CST/SLT	42.3	0.06	2
CM18-05-GC2-18	CM18-05-GC2	79.68	79.8	79.88	9L	CST	CST	13.3	0.12	3.8
CM18-05-GC2-19	CM18-05-GC2	79.88	80.7	81.48	9L	COAL	COAL	2.2	0.11	1.6
CM18-05-GC2-20	CM18-05-GC2	81.48	81.6	81.68	9R	SLT	SLT	4.8	0.02	2
CM18-05-GC2-21	CM18-05-GC2	81.68	83.4	85.18	9R	SLT	SLT	1.6	0.04	1.5
CM18-05-GC2-22	CM18-05-GC2	85.18	85.3	85.42	9R	COAL	COAL	0.6	0.07	0.7
CM18-05-GC2-23	CM18-05-GC2	85.42	88.2	90.98	10U	SLT	SLT	9.1	0.13	1.4
CM18-05-GC2-24	CM18-05-GC2	90.98	93.5	95.93	10U	SST/SLT	SST/SLT	135.7	0.02	0.6
CM18-05-GC2-25	CM18-05-GC2	95.93	98.7	101.53	10U	ST/SLT	ST/SLT	96.0	0.03	0.6
CM18-05-GC2-26	CM18-05-GC2	101.53	105.4	109.29	10U	MIX	MIX	21.3	0.03	2.7
CM18-05-GC2-27	CM18-05-GC2	109.49	110.6	111.78	10U	COAL	COAL	33.0	0.01	1.2
CM18-05-GC2-28	CM18-05-GC2	111.78	111.9	111.98	10M	CCST	CCST	2.7	0.03	1.3
CM18-05-GC2-29	CM18-05-GC2	111.98	115.0	117.93	10M	SLT	SLT	2.0	0.07	1.2
CM18-05-GC2-30	CM18-05-GC2	117.93	119.3	120.73	10M	CST	CST	2.1	0.08	1.8
CM18-05-GC2-31	CM18-05-GC2	120.73	120.8	120.88	10M	COAL	COAL	0.1	0.36	2.7
CM18-05-GC2-32	CM18-05-GC2	120.88	121.2	121.58	10M	MIX	MIX	2.7	0.03	0.9
CM18-05-GC2-33	CM18-05-GC2	121.58	121.7	121.78	10L	COAL	COAL	11.4	0.05	2
CM18-05-GC2-34	CM18-05-GC2	121.78	124.6	127.38	10L	SLT	SLT	42.8	0.06	0.9
CM18-05-GC2-35	CM18-05-GC2	127.38	129.3	131.18	10L	SST	SST	12.7	0.16	0.9
CM18-05-GC2-37	CM18-05-GC2	131.38	131.7	132.06	10L	MIX	MIX	1.2	0.05	0.3
CM18-05-GC2-38	CM18-05-GC2	132.06	132.2	132.27	Moose	CST	CST	0.2	0.23	1.4
CM18-05-GC2-39	CM18-05-GC2	132.27	134.5	136.82	Moose	SST	SST	0.7	0.21	0.5
CM18-05-GC2-40	CM18-05-GC2	136.82	139.8	142.82	Moose	MIX	MIX	0.8	0.3	0.9
CM18-05-GC2-41	CM18-05-GC2	142.82	145.0	147.27	Moose	SST	SST	2.6	0.29	0.2
CM18-05-GC2-42	CM18-05-GC2	147.27	147.4	147.52	Moose	CCST	CCST	2.9	0.43	0.4
CM18-05-GC2-43	CM18-05-GC2	147.52	147.8	148.09	Moose	COAL	COAL	0.4	0.2	1.1
CM18-05-GC2-44	CM18-05-GC2	148.09	148.1	148.12	Below Moose	CST	CST	68.8	0.01	0.1
CM18-05-GC2-45	CM18-05-GC2	148.12	149.0	149.82	Below Moose	SST	SST	3.7	0.03	0.1

Sample ID	HOLE	Start	Mid	End	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4	Se
		m	m	m					%	ppm
CM18-10-GC-01	CM18-10-GC	11.80	14.1	16.33	9	CST	CST	2.5	0.78	1.3
CM18-10-GC-02	CM18-10-GC	16.33	18.6	20.83	9	MIX	MIX	39.5	0.08	1.1
CM18-10-GC-03	CM18-10-GC	20.83	23.4	25.98	9	SLT	SLT	74.2	0.05	1
CM18-10-GC-04	CM18-10-GC	25.98	27.8	29.55	9	MIX	MIX	116.8	0.04	1.3
CM18-10-GC-05	CM18-10-GC	29.55	32.2	34.80	9	CST	CST	37.2	0.06	1.3
CM18-10-GC-06	CM18-10-GC	34.80	34.9	35.05	9	CST	CST	12.8	0.06	3.2
CM18-10-GC-29	CM18-10-GC	96.57	96.6	96.72	10U	SST	SST	0.0	0.65	1.5
CM18-10-GC-30	CM18-10-GC	97.33	99.3	101.33	9	SST	SST	0.9	0.28	0.3
CM18-10-GC-31	CM18-10-GC	101.33	103.2	104.97	9	CST/SST	CST/SST	1.4	0.21	1.9
CM18-10-GC-32	CM18-10-GC	104.97	107.5	110.03	9	SST	SST	1.3	0.34	0.3
CM18-10-GC-33	CM18-10-GC	110.0	113.1	116.2	9	SST	SST	0.7	0.68	0.2
CM18-10-GC-34	CM18-10-GC	116.2	118.8	121.4	9	SST	SST	5.4	0.19	0.2
CM18-10-GC-35	CM18-10-GC	121.4	123.6	125.8	9	SST	SST	1.2	0.93	0.3

Sample ID	HOLE	Start	Mid	End	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4	Se
		m	m	m					%	ppm
CM18-16-GC-15	CM18-16-GC	67.6	70.6	73.58	9	CST	CST	8.8	0.04	2.5
CM18-16-GC-16	CM18-16-GC	73.58	76.5	79.48	9	CST	CST	2.8	0.04	1.1
CM18-16-GC-17	CM18-16-GC	79.48	82.1	84.78	9	CST/SLT	CST/SLT	44.0	0.04	0.6
CM18-16-GC-18	CM18-16-GC	84.78	87.5	90.18	9	MIX	MIX	79.7	0.02	0.4
CM18-16-GC-19	CM18-16-GC	90.18	93.3	96.38	9	SST	SST	27.1	0.06	0.6
CM18-16-GC-20	CM18-16-GC	96.38	99.4	102.48	9	SST	SST	21.6	0.05	0.6
CM18-16-GC-21	CM18-16-GC	102.48	103.2	103.98	9	SST	SST	4.8	0.05	0.4
CM18-16-GC-22	CM18-16-GC	103.98	105.3	106.58	9	MIX	MIX	2.7	0.12	0.4
CM18-16-GC-23	CM18-16-GC	106.78	106.9	106.98	9	CST	CST	4.8	0.01	1.5
CM18-16-GC-24	CM18-16-GC	106.98	109.2	111.49	10U	CST	CST	12.8	0.05	1.8
CM18-16-GC-25	CM18-16-GC	111.49	114.2	116.98	10U	CST	CST	38.4	0.06	1.1
CM18-16-GC-26	CM18-16-GC	116.98	118.7	120.48	10U	CST/SLT	CST/SLT	59.0	0.07	0.8
CM18-16-GC-27	CM18-16-GC	120.48	122.3	124.03	10U	CST/SLT	CST/SLT	66.6	0.05	1.5
CM18-16-GC-28	CM18-16-GC	124.03	124.3	124.51	10U	MIX	MIX	4.5	0.02	0.7
CM18-16-GC-29	CM18-16-GC	124.51	126.5	128.53	10M	MIX	MIX	68.0	0.02	0.9
CM18-16-GC-30	CM18-16-GC	128.53	130.0	131.53	10M	MIX	MIX	39.9	0.05	0.9
CM18-16-GC-31	CM18-16-GC	131.53	131.8	131.98	10M	COAL	COAL	1.3	0.12	4.5
CM18-16-GC-32	CM18-16-GC	131.98	133.0	133.98	10M	CST/SLT	CST/SLT	157.9	0.03	2.9
CM18-16-GC-33	CM18-16-GC	133.98	134.3	134.58	10M	CST/CDB	CST/CDB	7.6	0.04	0.5
CM18-16-GC-34	CM18-16-GC	134.58	136.6	138.68	10M	CST/SLT	CST/SLT	41.0	0.06	4
CM18-16-GC-35	CM18-16-GC	138.68	138.9	139.08	10M	COAL	COAL	1.9	0.03	2.3
CM18-16-GC-36	CM18-16-GC	139.08	140.3	141.48	10M	CST	CST	1.7	0.08	1.1
CM18-16-GC-37	CM18-16-GC	141.48	141.5	141.58	10M	COAL	COAL	17.9	0.03	0.7
CM18-16-GC-38	CM18-16-GC	141.58	142.5	143.48	10M	MIX	MIX	1.2	0.1	3
CM18-16-GC-39	CM18-16-GC	143.48	146.0	148.48	10L	MIX	MIX	14.8	0.07	1.2
CM18-16-GC-40	CM18-16-GC	148.48	151.1	153.78	10L	SST	SST	122.7	0.03	0.4
CM18-16-GC-41	CM18-16-GC	153.78	153.8	153.78	10L	SST	SST	34.6	0.06	0.5
CM18-16-GC-42	CM18-16-GC	159.55	159.6	159.55	10L	SLT	SLT	35.8	0.1	1
CM18-16-GC-43	CM18-16-GC	162.78	162.8	162.78	10L	CST/SLT	CST/SLT	15.0	0.15	0.7

Sample ID	HOLE	Start	Mid	End	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4	Se
		m	m	m					%	ppm
CM18-16-LDC3-38	CM18-16-LDC3	168.96	171.6	174.27	Moose	SST	SST	0.6	0.33	0.6
CM18-16-LDC3-39	CM18-16-LDC3	174.27	176.6	178.97	Moose	SST	SST	20.0	0.08	0.9
CM18-16-LDC3-40	CM18-16-LDC3	178.97	181.2	183.52	Moose	SST	SST	0.4	0.24	0.2
CM18-16-LDC3-41	CM18-16-LDC3	183.52	185.0	186.57	Moose	SST	SST	0.9	0.35	0.2
CM18-16-LDC3-42	CM18-16-LDC3	186.57	188.2	189.77	Moose	SST	SST	0.2	0.96	0.5
CM18-16-LDC3-43	CM18-16-LDC3	190	190.5	191	Moose	#N/A	#N/A	3.6	0.06	0.2

Sample ID	HOLE	Start	Mid	End	Seam	Coded Geology	Legend Code	NP/AP	ICP S-SO4	Se
		m	m	m					%	ppm
CM18-27-GC-01	CM18-27-GC	15	17.7	20.48	9	CST	CST	2.6	0.01	2.7
CM18-27-GC-02	CM18-27-GC	20.48	23.3	26.03	9	CST	CST	7.4	0.01	1.6
CM18-27-GC-03	CM18-27-GC	26.03	27.8	29.48	9	CST	CST	0.0	0.01	1.4
CM18-27-GC-04	CM18-27-GC	29.48	31.8	34.08	9	SST/SLT	SST/SLT	9.0	0.01	0.4
CM18-27-GC-05	CM18-27-GC	34.08	35.8	37.48	9	SST	SST	8.0	0.01	0.4
CM18-27-GC-06	CM18-27-GC	37.48	40.5	43.48	9	CST/SLT	CST/SLT	17.6	0.01	1.3
CM18-27-GC-07	CM18-27-GC	43.48	45.5	47.48	9	SLT	SLT	3.0	0.03	1.4
CM18-27-GC-08	CM18-27-GC	47.48	50.2	52.88	9	SLT	SLT	7.4	0.01	1.7
CM18-27-GC-09	CM18-27-GC	52.88	55.2	57.48	9	SLT	SLT	5.8	0.01	1.5
CM18-27-GC-10	CM18-27-GC	57.48	59.7	61.98	9	SLT	SLT	8.4	0.04	1.9
CM18-27-GC-11	CM18-27-GC	61.98	65.0	68.08	9	CCST/SST	CCST/SST	8.8	0.06	0.7
CM18-27-GC-12	CM18-27-GC	68.08	70.2	72.38	9	CST	CST	22.8	0.04	1
CM18-27-GC-13	CM18-27-GC	72.38	75.4	78.48	9	SST/SLT	SST/SLT	84.8	0.03	0.8
CM18-27-GC-14	CM18-27-GC	78.48	80.2	81.83	9	SLT	SLT	199.4	0.01	0.7
CM18-27-GC-15	CM18-27-GC	81.83	81.9	82.03	9	SLT	SLT	46.4	0.04	1.1
CM18-27-GC-16	CM18-27-GC	82.03	83.8	85.48	9	MIX	MIX	1.8	0.14	0.1
CM18-27-GC-17	CM18-27-GC	85.48	85.6	85.68	10U	CST	CST	0.5	0.05	0.8
CM18-27-GC-18	CM18-27-GC	85.68	88.2	90.68	10U	CST/SST	CST/SST	9.1	0.03	1.2
CM18-27-GC-19	CM18-27-GC	90.68	93.1	95.48	10U	SST/SLT	SST/SLT	196.8	0.02	1
CM18-27-GC-20	CM18-27-GC	95.48	97.0	98.58	10U	CST/SLT	CST/SLT	37.0	0.05	1.4
CM18-27-GC-21	CM18-27-GC	98.58	100.5	102.48	10U	MIX	MIX	65.4	0.03	1.3
CM18-27-GC-22	CM18-27-GC	102.48	105.5	108.48	10U	CST/SLT	CST/SLT	96.6	0.05	1
CM18-27-GC-23	CM18-27-GC	108.48	111.5	114.48	10U	CST/SLT	CST/SLT	73.0	0.05	1.3
CM18-27-GC-24	CM18-27-GC	114.48	115.1	115.63	10U	CST	CST	4.8	0.07	4.2
CM18-27-GC-25	CM18-27-GC	115.63	115.7	115.78	10U	COAL	COAL	1.6	0.04	1.3
CM18-27-GC-26	CM18-27-GC	115.78	117.3	118.9	10U	MIX	MIX	2.6	0.08	4.2
CM18-27-GC-27	CM18-27-GC	118.9	119.0	119.03	10U	COAL	COAL	0.5	0.09	0.9
CM18-27-GC-28	CM18-27-GC	120.48	122.4	124.23	10U	CST/SLT	CST/SLT	74.2	0.04	3.5
CM18-27-GC-29	CM18-27-GC	126.48	129.2	131.88	10M	CCST/CST	CCST/CST	48.2	0.04	1.4
CM18-27-GC-30	CM18-27-GC	131.88	134.7	137.48	10M	CST	CST	4.4	0.19	1.4
CM18-27-GC-31	CM18-27-GC	138.48	140.0	141.48	10M	CST	CST	2.0	0.09	0.9
CM18-27-GC-32	CM18-27-GC	143.48	145.5	147.48	10L	CCST/CST	CCST/CST	2.8	0.05	2
CM18-27-GC-33	CM18-27-GC	147.48	150.5	153.48	10L	ST/CST	ST/CST	14.9	0.02	1.7
CM18-27-GC-34	CM18-27-GC	156.48	158.0	159.48	Moose	CST/SST	CST/SST	17.6	0.01	0.8
CM18-27-GC-35	CM18-27-GC	159.48	162.3	165.13	Moose	SST	SST	84.3	0.03	0.6
CM18-27-GC-36	CM18-27-GC	165.13	167.3	169.38	Moose	MIX	MIX	25.5	0.12	0.7
CM18-27-GC-37	CM18-27-GC	169.38	171.1	172.78	Moose	SST	SST	0.8	0.19	0.5
CM18-27-GC-38	CM18-27-GC	172.78	174.4	176	Moose	MIX	MIX	3.0	0.28	0.8
CM18-27-GC-39	CM18-27-GC	176	178.5	181.08	Moose	SST	SST	6.3	0.22	0.9
CM18-27-GC-40	CM18-27-GC	181.08	182.8	184.57	Moose	SST	SST	1.6	0.4	0.2
CM18-27-GC-41	CM18-27-GC	184.57	184.7	184.77	Moose	SST	SST	0.8	0.98	1
CM18-27-GC-42	CM18-27-GC	184.77	185.2	185.57	Moose	ST/SLT	ST/SLT	0.4	0.22	0.7
CM18-27-GC-43	CM18-27-GC	185.57	185.7	185.77	slow Moo	SST	SST	1.0	0.08	0.1
CM18-27-GC-44	CM18-27-GC	185.77	187.6	189.38	slow Moo	SST	SST	0.6	0.24	0.2

Appendix B1: WRD Sediment Pond WQ



Scenario Legend

A	Interim/Ultimate Sediment Pond
1	No Climate Change
2	Climate Change RCP4.5
3	Climate Change RCP8.5
a	Water Quality Terms based on 50th Percentile, assuming layering approach is successful
b	Water Quality Terms based on 50th Percentile, assuming layering approach fails
c	Water Quality Terms based on 95th Percentile, assuming layering approach is successful
d	Water Quality Terms based on 95th Percentile, assuming layering approach fails

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2020 Jan	Mean	112.55	128.94	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.34	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.02	0.91	1.72	0.22	17.63	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.51	132.33	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.21	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.60	11.92	0.000	0.001	0.25	0.02	0.20	0.005	0.05	1.05	0.01	7.13	0.03	0.98	1.76	0.22	18.36	0.03	0.542	0.003	0.60	0.23	0.73	0.11
2020 Mar	Mean	107.39	123.02	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.81	0.01	0.57	0.05	0.30	0.19	0.13	0.002	0.005	0.20	0.55	11.08	0.000	0.001	0.23	0.01	0.24	0.005	0.05	0.98	0.01	6.63	0.03	0.96	1.64	0.21	17.31	0.03	0.504	0.003	0.56	0.22	0.70	0.10
2020 Apr	Mean	100.37	114.98	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.73	0.01	0.53	0.05	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.36	0.000	0.001	0.21	0.01	0.24	0.005	0.05	0.91	0.01	6.20	0.03	0.89	1.53	0.19	16.18	0.03	0.471	0.003	0.52	0.20	0.70	0.09
2020 May	Mean	103.96	119.10	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.79	0.01	0.55	0.06	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.73	0.000	0.001	0.22	0.01	0.28	0.005	0.05	0.94	0.01	6.42	0.03	0.96	1.59	0.20	16.93	0.03	0.488	0.003	0.54	0.21	0.75	0.10
2020 Jun	Mean	105.48	120.84	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.24	0.01	0.56	0.09	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.88	0.000	0.001	0.22	0.01	0.36	0.005	0.05	0.96	0.01	6.51	0.03	1.05	1.61	0.20	17.62	0.03	0.495	0.003	0.56	0.21	0.75	0.10
2020 Jul	Mean	105.98	121.41	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.39	0.01	0.56	0.12	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.93	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.96	0.01	6.55	0.04	1.13	1.62	0.21	18.16	0.03	0.497	0.003	0.56	0.21	0.75	0.10
2020 Aug	Mean	106.20	121.66	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.46	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.96	0.000	0.001	0.23	0.01	0.48	0.005	0.05	0.96	0.01	6.56	0.04	1.17	1.62	0.21	18.40	0.03	0.498	0.003	0.57	0.21	0.75	0.10
2020 Sep	Mean	105.99	121.42	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.39	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.93	0.000	0.001	0.23	0.01	0.50	0.005	0.05	0.96	0.01	6.55	0.04	1.19	1.62	0.21	18.51	0.03	0.497	0.003	0.57	0.21	0.74	0.10
2020 Oct	Mean	106.09	121.53	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.42	0.01	0.56	0.16	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.000	0.001	0.23	0.01	0.55	0.005	0.05	0.96	0.01	6.55	0.05	1.24	1.62	0.21	18.79	0.03	0.497	0.003	0.57	0.21	0.74	0.10
2020 Nov	Mean	108.78	124.62	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.22	0.01	0.58	0.23	0.30	0.20	0.13	0.002	0.005	0.20	0.56	11.22	0.001	0.001	0.23	0.01	0.74	0.005	0.05	0.99	0.02	6.72	0.06	1.43	1.66	0.21	20.16	0.03	0.510	0.003	0.60	0.22	0.79	0.10
2020 Dec	Mean	113.97	130.56	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.76	0.02	0.60	0.39	0.32	0.22	0.14	0.003	0.005	0.21	0.59	11.76	0.001	0.001	0.24	0.01	1.18	0.005	0.05	1.04	0.02	7.04	0.08	1.88	1.74	0.22	23.33	0.03	0.534	0.003	0.65	0.23	0.88	0.11
2021 Jan	Mean	116.81	133.81	0.01	0.00	0.14	0.04	0.04	0.02	0.01	34.60	0.03	0.62	0.70	0.33	0.25	0.14	0.003	0.005	0.22	0.60	12.05	0.002	0.002	0.25	0.02	2.04	0.005	0.06	1.06	0.02	7.21	0.13	2.70	1.78	0.23	28.32	0.03	0.548	0.004	0.72	0.24	1.02	0.11
2021 Feb	Mean	113.31	129.80	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.56	0.03	0.60	0.98	0.32	0.26	0.14	0.003	0.005	0.21	0.58	11.69	0.003	0.003	0.24	0.01	2.79	0.005	0.06	1.03	0.03	7.00	0.17	3.37	1.73	0.22	31.78	0.03	0.531	0.004	0.75	0.24	1.11	0.11
2021 Mar	Mean	104.36	119.55	0.01	0.00	0.13	0.03	0.03	0.02	0.01	30.91	0.02	0.55	0.67	0.30	0.23	0.13	0.003	0.005	0.20	0.54	10.77	0.002	0.002	0.22	0.01	1.94	0.005	0.05	0.95	0.02	6.45	0.12	2.50	1.59	0.20	25.83	0.03	0.489	0.003	0.65	0.22	0.97	0.10
2021 Apr	Mean	99.04	113.50	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.34	0.01	0.53	0.27	0.28	0.20	0.12	0.003	0.005	0.19	0.51	10.23	0.001	0.001	0.21	0.01	0.84	0.005	0.05	0.89	0.02	6.14	0.06	1.41	1.51	0.19	19.07	0.03	0.464	0.003	0.55	0.20	0.92	0.09
2021 May	Mean	103.00	118.05	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.52	0.01	0.55	0.23	0.29	0.20	0.13	0.003	0.005	0.19	0.53	10.64	0.001	0.001	0.22	0.01	0.76	0.005	0.05	0.93	0.02	6.39	0.05	1.35	1.57	0.20	19.16	0.03	0.483	0.003	0.57	0.21	0.99	0.10
2021 Jun	Mean	105.03	120.34	0.01	0.00	0.12	0.03	0.03	0.02	0.01	31.11	0.02	0.56	0.36	0.29	0.21	0.13	0.003	0.005	0.20	0.54	10.84	0.001	0.001	0.22	0.01	1.11	0.005	0.05	0.95	0.02	6.50	0.07	1.72	1.60	0.20	21.44	0.03	0.492	0.003	0.60	0.21	0.92	0.10
2021 Jul	Mean	105.53	120.90	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.26	0.02	0.56	0.53	0.30	0.22	0.13	0.003	0.005	0.20	0.54	10.89	0.001	0.002	0.23	0.01	1.55	0.005	0.05	0.96	0.02	6.52	0.10	2.15	1.61	0.20	23.95	0.03	0.495	0.003	0.63	0.22	0.93	0.10
2021 Aug	Mean	105.66	121.05	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.30	0.02	0.56	0.62	0.30	0.23	0.13	0.003	0.005	0.20	0.55	10.90	0.002	0.002	0.23	0.01	1.81	0.005	0.05	0.96	0.02	6.53	0.11	2.40	1.61	0.21	25.39	0.03	0.495	0.003	0.65	0.22	0.95	0.10
2021 Sep	Mean	105.32	120.65	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.20	0.03	0.56	0.71	0.30	0.23	0.13	0.003	0.005	0.20	0.54	10.87	0.002	0.002	0.22	0.01	2.05	0.005	0.05	0.96	0.02	6.51	0.12	2.62	1.61	0.20	26.59	0.03	0.494	0.003	0.66	0.22	0.98	0.10
2021 Oct	Mean	105.30	120.63	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.19	0.03	0.56	0.86	0.30	0.24	0.13	0.003	0.005	0.20	0.54	10.86	0.002	0.002	0.22	0.01	2.47	0.005	0.05	0.96	0.02	6.50	0.15	3.01	1.61	0.20	28.84	0.03	0.494	0.003	0.69	0.22	1.03	0.10
2021 Nov	Mean	107.71	123.40	0.01	0.00	0.15	0.03	0.04	0.02	0.01	31.91	0.04	0.57	1.18	0.31	0.27	0.13	0.003	0.005	0.20	0.56	11.11	0.003	0.003	0.23	0.01	3.34	0.005	0.06	0.98	0.03	6.65	0.19	3.83	1.64	0.21	33.81	0.03	0.505	0.004	0.76	0.23	1.18	0.10
2021 Dec	Mean	112.56	128.95	0.01	0.00	0.18	0.04	0.04	0.03	0.01	33.34	0.06	0.60	1.90	0.33	0.32	0.14	0.003	0.005	0.21	0.58	11.61	0.005	0.004	0.24	0.01	5.31	0.005	0.06	1.02	0.04	6.95	0.30	5.70	1.72	0.22	45.02	0.03	0.528	0.004	0.91	0.25	1.48	0.11
2022 Jan	Mean	113.89	130.47	0.01	0.00	0.23	0.04	0.05	0.03	0.01	33.73	0.07	0.60	1.99	0.35	0.41	0.14	0.004	0.005	0.21	0.59	11.75	0.008	0.005	0.24	0.01	5.28	0.005	0.07	1.03	0.05	7.03	0.47	4.95	1.74	0.22	45.51	0.03	0.534	0.005	0.93	0.26	1.94	0.11
2022 Feb	Mean	109.56	125.51	0.01	0.00	0.26	0.04	0.05	0.03	0.01	32.45	0.07	0.58	1.65	0.35	0.46	0.14	0.004	0.005	0.21	0.57	11.30	0.010	0.004	0.23	0.01	4.02	0.005	0.07	0.99	0.06	6.77	0.59	2.90	1.67	0.21	38.65	0.03	0.514	0.005	0.84	0.26	2.26	0.10
2022 Mar	Mean	101.49	116.27	0.01	0.00	0.22	0.03	0.05	0.02	0.01	30.06	0.06	0.54	1.14	0.32	0.39	0.13	0.004	0.005	0.19	0.5																							

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jun	Mean	101.33	116.13	0.01	0.00	0.22	0.03	0.05	0.02	0.01	30.02	0.08	0.54	1.28	0.32	0.41	0.13	0.004	0.005	0.19	0.52	10.46	0.009	0.004	0.22	0.01	3.10	0.005	0.06	0.91	0.05	6.28	0.49	2.12	1.55	0.20	32.10	0.03	0.475	0.005	0.73	0.24	2.22	0.09
2023 Jul	Mean	100.86	115.56	0.01	0.00	0.28	0.04	0.05	0.03	0.01	29.88	0.10	0.53	1.83	0.34	0.50	0.13	0.004	0.005	0.19	0.52	10.41	0.012	0.005	0.22	0.01	4.34	0.005	0.07	0.91	0.07	6.24	0.70	2.69	1.54	0.20	39.13	0.03	0.473	0.006	0.82	0.26	2.65	0.09
2023 Aug	Mean	100.35	114.98	0.01	0.00	0.31	0.04	0.06	0.03	0.01	29.73	0.12	0.53	2.14	0.35	0.56	0.12	0.005	0.005	0.19	0.52	10.36	0.015	0.006	0.21	0.01	5.06	0.005	0.07	0.91	0.08	6.21	0.82	3.02	1.53	0.19	43.15	0.03	0.470	0.006	0.87	0.26	2.93	0.09
2023 Sep	Mean	99.74	114.27	0.01	0.00	0.32	0.04	0.06	0.03	0.01	29.54	0.13	0.53	2.32	0.35	0.58	0.12	0.005	0.005	0.19	0.51	10.29	0.016	0.006	0.21	0.01	5.47	0.005	0.07	0.90	0.09	6.17	0.88	3.20	1.52	0.19	45.36	0.03	0.468	0.007	0.89	0.27	3.07	0.09
2023 Oct	Mean	99.54	114.04	0.01	0.00	0.34	0.04	0.06	0.03	0.01	29.48	0.14	0.53	2.46	0.35	0.61	0.12	0.005	0.005	0.19	0.51	10.27	0.017	0.007	0.21	0.01	5.79	0.005	0.08	0.90	0.09	6.15	0.94	3.34	1.52	0.19	47.16	0.03	0.467	0.007	0.92	0.27	3.20	0.09
2023 Nov	Mean	101.62	116.42	0.01	0.00	0.35	0.04	0.06	0.03	0.01	30.10	0.15	0.54	2.59	0.36	0.63	0.13	0.005	0.005	0.19	0.52	10.49	0.017	0.007	0.22	0.01	6.08	0.005	0.08	0.92	0.10	6.28	0.98	3.48	1.55	0.20	49.06	0.03	0.476	0.007	0.95	0.28	3.36	0.10
2023 Dec	Mean	105.98	121.41	0.02	0.01	0.41	0.04	0.07	0.04	0.01	31.39	0.17	0.56	3.09	0.39	0.73	0.13	0.006	0.005	0.20	0.55	10.94	0.021	0.008	0.23	0.01	7.25	0.005	0.09	0.96	0.11	6.55	1.18	4.05	1.62	0.21	56.29	0.03	0.497	0.008	1.05	0.30	3.89	0.10
2024 Jan	Mean	105.97	121.40	0.02	0.01	0.49	0.04	0.08	0.05	0.01	31.39	0.21	0.56	3.84	0.42	0.88	0.13	0.006	0.005	0.20	0.55	10.93	0.027	0.010	0.23	0.01	8.89	0.005	0.10	0.96	0.14	6.55	1.49	4.58	1.62	0.21	65.63	0.03	0.497	0.010	1.17	0.33	4.71	0.10
2024 Feb	Mean	98.88	113.27	0.02	0.01	0.50	0.04	0.08	0.05	0.01	29.29	0.21	0.52	3.91	0.40	0.90	0.12	0.007	0.005	0.19	0.51	10.20	0.028	0.010	0.21	0.01	9.00	0.005	0.10	0.90	0.15	6.11	1.55	4.37	1.51	0.19	65.27	0.03	0.464	0.010	1.15	0.32	4.86	0.09
2024 Mar	Mean	96.06	110.08	0.01	0.01	0.36	0.04	0.06	0.03	0.01	28.46	0.14	0.51	2.60	0.35	0.66	0.12	0.005	0.004	0.18	0.50	9.92	0.019	0.007	0.20	0.01	6.02	0.004	0.08	0.87	0.10	5.95	1.03	3.09	1.47	0.19	47.82	0.03	0.450	0.007	0.92	0.27	3.67	0.09
2024 Apr	Mean	92.58	106.18	0.01	0.00	0.22	0.03	0.04	0.02	0.01	27.45	0.08	0.49	1.32	0.30	0.44	0.12	0.005	0.004	0.18	0.48	9.58	0.010	0.004	0.20	0.01	3.21	0.004	0.06	0.82	0.06	5.78	0.52	1.90	1.42	0.18	30.79	0.03	0.433	0.005	0.69	0.23	2.79	0.09
2024 May	Mean	95.71	109.78	0.01	0.00	0.20	0.03	0.04	0.02	0.01	28.38	0.07	0.51	1.10	0.30	0.41	0.12	0.005	0.004	0.18	0.50	9.90	0.008	0.003	0.20	0.01	2.72	0.004	0.06	0.84	0.05	5.98	0.43	1.72	1.47	0.19	28.40	0.03	0.448	0.005	0.67	0.23	2.67	0.09
2024 Jun	Mean	99.37	113.90	0.01	0.00	0.26	0.04	0.05	0.03	0.01	29.45	0.09	0.53	1.62	0.33	0.49	0.12	0.005	0.005	0.19	0.52	10.27	0.012	0.004	0.21	0.01	3.85	0.005	0.07	0.89	0.07	6.17	0.65	2.24	1.52	0.19	35.85	0.03	0.465	0.006	0.77	0.25	2.83	0.09
2024 Jul	Mean	99.03	113.47	0.01	0.00	0.33	0.04	0.06	0.03	0.01	29.34	0.13	0.52	2.30	0.35	0.61	0.12	0.005	0.005	0.19	0.51	10.22	0.016	0.006	0.21	0.01	5.34	0.005	0.08	0.89	0.09	6.13	0.92	2.85	1.51	0.19	44.52	0.03	0.464	0.007	0.88	0.27	3.32	0.09
2024 Aug	Mean	98.18	112.50	0.01	0.01	0.37	0.04	0.07	0.03	0.01	29.08	0.15	0.52	2.70	0.36	0.68	0.12	0.005	0.004	0.18	0.51	10.13	0.019	0.007	0.21	0.01	6.25	0.004	0.08	0.89	0.10	6.07	1.08	3.21	1.50	0.19	49.57	0.03	0.460	0.008	0.95	0.28	3.69	0.09
2024 Sep	Mean	97.35	111.54	0.02	0.01	0.39	0.04	0.07	0.04	0.01	28.84	0.16	0.52	2.89	0.37	0.71	0.12	0.005	0.004	0.18	0.50	10.05	0.021	0.007	0.21	0.01	6.67	0.004	0.08	0.88	0.11	6.02	1.15	3.38	1.49	0.19	51.87	0.03	0.456	0.008	0.97	0.29	3.83	0.09
2024 Oct	Mean	96.99	111.12	0.02	0.01	0.40	0.04	0.07	0.04	0.01	28.73	0.16	0.51	3.00	0.37	0.73	0.12	0.006	0.004	0.18	0.50	10.01	0.021	0.008	0.21	0.01	6.92	0.004	0.08	0.88	0.11	6.00	1.20	3.48	1.48	0.19	53.25	0.03	0.455	0.008	0.99	0.29	3.94	0.09
2024 Nov	Mean	98.86	113.27	0.02	0.01	0.42	0.04	0.07	0.04	0.01	29.28	0.17	0.52	3.12	0.38	0.76	0.12	0.006	0.005	0.19	0.51	10.20	0.022	0.008	0.21	0.01	7.19	0.005	0.09	0.89	0.12	6.11	1.24	3.60	1.51	0.19	55.01	0.03	0.463	0.008	1.02	0.30	4.11	0.09
2024 Dec	Mean	100.72	115.40	0.02	0.01	0.49	0.04	0.08	0.04	0.01	29.84	0.20	0.53	3.79	0.41	0.88	0.12	0.007	0.005	0.19	0.52	10.39	0.027	0.010	0.21	0.01	8.72	0.005	0.10	0.91	0.14	6.23	1.51	4.22	1.54	0.20	63.95	0.03	0.472	0.010	1.14	0.32	4.81	0.09
2025 Jan	Mean	103.58	118.66	0.02	0.01	0.45	0.04	0.08	0.04	0.01	30.68	0.17	0.55	3.31	0.40	0.82	0.13	0.006	0.005	0.20	0.53	10.69	0.024	0.008	0.22	0.01	7.53	0.005	0.09	0.94	0.13	6.40	1.37	3.52	1.58	0.20	57.97	0.03	0.486	0.009	1.07	0.32	4.35	0.10
2025 Feb	Mean	104.09	119.24	0.02	0.01	0.44	0.04	0.08	0.04	0.01	30.83	0.16	0.55	3.16	0.40	0.80	0.13	0.006	0.005	0.20	0.54	10.74	0.024	0.008	0.22	0.01	7.17	0.005	0.09	0.95	0.13	6.43	1.33	3.30	1.59	0.20	56.05	0.03	0.488	0.009	1.05	0.31	4.22	0.10
2025 Mar	Mean	101.83	116.65	0.02	0.01	0.42	0.04	0.07	0.04	0.01	30.16	0.15	0.54	2.95	0.39	0.75	0.13	0.006	0.005	0.19	0.52	10.51	0.022	0.008	0.22	0.01	6.68	0.005	0.09	0.93	0.12	6.29	1.24	3.09	1.55	0.20	52.98	0.03	0.478	0.008	1.00	0.30	3.97	0.10
2025 Apr	Mean	238.18	272.99	0.02	0.01	0.58	0.08	0.11	0.06	0.01	70.57	0.18	1.26	3.20	0.77	1.07	0.30	0.010	0.011	0.45	1.23	24.60	0.024	0.009	0.51	0.03	7.49	0.011	0.15	2.14	0.14	14.78	1.35	4.34	3.64	0.46	76.92	0.07	1.116	0.013	1.74	0.58	5.85	0.22
2025 May	Mean	3177.89	3645.85	0.20	0.12	4.50	1.03	1.08	0.52	0.18	942.28	0.97	16.99	14.08	9.25	9.20	3.97	0.122	0.149	6.02	16.65	328.98	0.115	0.046	6.78	0.43	37.91	0.145	1.67	27.89	0.88	198.98	5.71	35.68	48.77	6.15	660.38	0.94	14.866	0.123	18.53	6.81	58.45	2.97
2025 Jun	Mean	2019.47	2316.31	0.12	0.07	2.67	0.65	0.66	0.31	0.11	598.70	0.51	10.78	7.03	5.81	5.38	2.52	0.072	0.094	3.82	10.55	208.95	0.058	0.025	4.31	0.27	19.56	0.092	1.04	17.82	0.49	126.17	2.89	21.24	30.97	3.91	396.24	0.60	9.450	0.073	11.46	4.27	33.02	1.89
2025 Jul	Mean	121.86	139.62	0.01	0.00	0.26	0.04	0.05	0.03	0.01	36.10	0.07	0.65	1.31	0.38	0.47	0.15	0.004	0.006	0.23	0.63	12.58	0.010	0.004	0.26	0.02	3.07	0.006	0.07	1.10	0.06	7.54	0.56	1.98	1.86	0.24	35.38	0.04	0.571	0.006	0.84	0.29	2.38	0.11
2025 Aug	Mean	131.56	150.73	0.01	0.01	0.33	0.05	0.06	0.03	0.01	38.97	0.10	0.70	1.84	0.43	0.59	0.16	0.005	0.																									

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2026 Nov	Mean	102.07	116.92	0.02	0.01	0.42	0.04	0.07	0.04	0.01	30.23	0.23	0.54	3.76	0.39	0.75	0.13	0.006	0.005	0.19	0.53	10.53	0.022	0.010	0.22	0.01	9.12	0.005	0.09	0.93	0.12	6.30	1.24	5.95	1.56	0.20	65.62	0.03	0.479	0.008	1.16	0.30	3.97	0.10
2026 Dec	Mean	104.01	119.15	0.02	0.01	0.52	0.04	0.09	0.05	0.01	30.81	0.29	0.55	4.94	0.42	0.93	0.13	0.007	0.005	0.20	0.54	10.73	0.029	0.014	0.22	0.01	11.96	0.005	0.10	0.95	0.15	6.42	1.62	7.58	1.59	0.20	81.61	0.03	0.488	0.010	1.37	0.34	5.02	0.10
2027 Jan	Mean	103.30	118.34	0.02	0.01	0.58	0.04	0.10	0.06	0.01	30.60	0.29	0.55	5.08	0.44	1.04	0.13	0.007	0.005	0.19	0.53	10.66	0.033	0.013	0.22	0.01	11.95	0.005	0.11	0.94	0.17	6.38	1.86	6.53	1.58	0.20	82.07	0.03	0.484	0.011	1.37	0.35	5.66	0.10
2027 Feb	Mean	101.15	115.87	0.02	0.01	0.59	0.04	0.10	0.05	0.01	29.96	0.24	0.54	4.63	0.44	1.06	0.13	0.007	0.005	0.19	0.52	10.44	0.034	0.012	0.22	0.01	10.51	0.005	0.11	0.92	0.17	6.25	1.88	4.72	1.54	0.20	74.39	0.03	0.474	0.011	1.27	0.35	5.72	0.09
2027 Mar	Mean	138.16	158.52	0.02	0.01	0.63	0.06	0.11	0.06	0.01	40.97	0.23	0.74	4.54	0.55	1.18	0.17	0.009	0.006	0.26	0.72	14.30	0.035	0.011	0.29	0.02	10.30	0.006	0.13	1.21	0.18	8.66	1.92	4.41	2.12	0.27	78.41	0.04	0.646	0.013	1.45	0.43	6.74	0.13
2027 Apr	Mean	133.55	153.30	0.02	0.01	0.52	0.05	0.09	0.05	0.01	39.62	0.18	0.72	3.53	0.50	0.99	0.17	0.009	0.006	0.25	0.70	13.84	0.028	0.009	0.28	0.02	8.03	0.006	0.11	1.16	0.15	8.41	1.51	3.48	2.05	0.26	64.71	0.04	0.624	0.011	1.26	0.39	5.82	0.12
2027 May	Mean	2201.15	2531.32	0.15	0.11	3.40	0.74	0.79	0.41	0.12	653.80	0.83	11.96	12.65	6.57	7.72	2.79	0.108	0.108	4.20	11.83	229.11	0.109	0.037	4.70	0.31	33.92	0.100	1.24	18.21	0.74	140.89	5.04	26.32	34.09	4.23	494.66	0.66	10.255	0.098	13.39	4.86	55.49	2.05
2027 Jun	Mean	2682.04	3085.05	0.17	0.13	3.82	0.90	0.92	0.48	0.15	796.77	0.89	14.60	12.61	7.91	8.94	3.40	0.132	0.133	5.13	14.45	279.31	0.111	0.038	5.73	0.38	35.42	0.122	1.48	22.06	0.79	172.03	4.87	30.24	41.57	5.16	567.25	0.80	12.491	0.115	15.87	5.82	66.26	2.50
2027 Jul	Mean	113.29	129.82	0.01	0.00	0.32	0.04	0.06	0.03	0.01	33.56	0.10	0.60	1.82	0.38	0.57	0.14	0.005	0.005	0.21	0.59	11.70	0.014	0.005	0.24	0.01	4.13	0.005	0.08	1.02	0.08	7.02	0.80	2.10	1.73	0.22	40.22	0.03	0.531	0.007	0.87	0.29	2.99	0.11
2027 Aug	Mean	134.38	154.17	0.02	0.01	0.42	0.05	0.08	0.04	0.01	39.85	0.14	0.72	2.63	0.47	0.80	0.17	0.007	0.006	0.25	0.70	13.91	0.021	0.007	0.29	0.02	6.01	0.006	0.10	1.18	0.11	8.41	1.14	2.81	2.06	0.26	53.63	0.04	0.629	0.009	1.12	0.36	4.55	0.13
2027 Sep	Mean	98.17	112.47	0.02	0.01	0.38	0.04	0.07	0.03	0.01	29.08	0.13	0.52	2.54	0.36	0.69	0.12	0.005	0.004	0.18	0.51	10.13	0.020	0.006	0.21	0.01	5.68	0.004	0.08	0.89	0.11	6.07	1.11	2.45	1.50	0.19	46.93	0.03	0.460	0.008	0.91	0.28	3.63	0.09
2027 Oct	Mean	107.69	123.39	0.02	0.01	0.42	0.04	0.07	0.04	0.01	31.90	0.14	0.57	2.81	0.40	0.76	0.13	0.006	0.005	0.20	0.56	11.12	0.022	0.007	0.23	0.01	6.30	0.005	0.09	0.97	0.12	6.66	1.23	2.71	1.64	0.21	51.80	0.03	0.505	0.008	1.01	0.31	4.06	0.10
2027 Nov	Mean	101.17	115.89	0.02	0.01	0.45	0.04	0.08	0.04	0.01	29.97	0.16	0.54	3.12	0.39	0.81	0.13	0.006	0.005	0.19	0.52	10.44	0.024	0.008	0.22	0.01	6.96	0.005	0.09	0.92	0.13	6.25	1.37	2.86	1.54	0.20	54.67	0.03	0.474	0.009	1.02	0.31	4.31	0.09
2027 Dec	Mean	103.31	118.35	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.60	0.20	0.55	3.99	0.43	0.99	0.13	0.007	0.005	0.19	0.53	10.66	0.031	0.010	0.22	0.01	8.87	0.005	0.10	0.94	0.16	6.38	1.74	3.45	1.58	0.20	65.84	0.03	0.484	0.011	1.17	0.34	5.35	0.10
2028 Jan	Mean	102.95	117.93	0.02	0.01	0.61	0.04	0.10	0.05	0.01	30.49	0.22	0.54	4.49	0.45	1.09	0.13	0.008	0.005	0.19	0.53	10.62	0.035	0.011	0.22	0.01	9.97	0.005	0.11	0.94	0.18	6.36	1.96	3.77	1.57	0.20	72.05	0.03	0.483	0.012	1.25	0.36	5.94	0.10
2028 Feb	Mean	101.05	115.76	0.02	0.01	0.61	0.04	0.10	0.05	0.01	29.93	0.23	0.53	4.54	0.45	1.10	0.13	0.008	0.005	0.19	0.52	10.43	0.035	0.011	0.22	0.01	10.08	0.005	0.11	0.92	0.18	6.24	1.98	3.79	1.54	0.20	72.41	0.03	0.474	0.012	1.25	0.36	5.99	0.09
2028 Mar	Mean	97.96	112.22	0.02	0.01	0.59	0.04	0.10	0.05	0.01	29.02	0.22	0.52	4.36	0.43	1.06	0.12	0.007	0.004	0.18	0.51	10.11	0.034	0.011	0.21	0.01	9.69	0.004	0.11	0.89	0.18	6.05	1.90	3.65	1.50	0.19	69.69	0.03	0.459	0.011	1.21	0.35	5.76	0.09
2028 Apr	Mean	119.44	137.01	0.02	0.01	0.52	0.05	0.09	0.05	0.01	35.41	0.18	0.64	3.58	0.46	0.97	0.15	0.008	0.006	0.23	0.63	12.36	0.028	0.009	0.25	0.02	8.10	0.005	0.11	1.05	0.15	7.47	1.55	3.31	1.83	0.23	62.95	0.04	0.559	0.011	1.19	0.36	5.70	0.11
2028 May	Mean	1979.20	2278.17	0.14	0.13	3.12	0.68	0.73	0.42	0.11	588.26	0.89	10.82	13.21	5.97	7.98	2.52	0.127	0.099	3.79	10.74	206.44	0.119	0.035	4.23	0.28	37.04	0.090	1.14	15.99	0.72	127.74	4.77	24.75	30.76	3.80	455.74	0.59	9.207	0.103	12.26	4.42	69.29	1.84
2028 Jun	Mean	2076.20	2390.78	0.14	0.13	3.08	0.71	0.74	0.43	0.11	617.27	0.87	11.39	12.30	6.21	8.19	2.65	0.136	0.105	3.99	11.31	216.76	0.113	0.033	4.43	0.30	35.81	0.094	1.18	16.60	0.70	134.48	4.25	24.98	32.31	3.98	458.08	0.62	9.651	0.107	12.61	4.58	73.51	1.93
2028 Jul	Mean	100.29	114.92	0.01	0.00	0.31	0.04	0.06	0.03	0.01	29.71	0.10	0.53	1.90	0.35	0.57	0.12	0.005	0.005	0.19	0.52	10.35	0.015	0.005	0.21	0.01	4.30	0.005	0.07	0.91	0.08	6.21	0.84	2.05	1.53	0.19	39.22	0.03	0.470	0.006	0.82	0.27	3.01	0.09
2028 Aug	Mean	98.33	112.66	0.02	0.01	0.38	0.04	0.07	0.03	0.01	29.13	0.13	0.52	2.55	0.37	0.69	0.12	0.005	0.004	0.19	0.51	10.15	0.020	0.006	0.21	0.01	5.71	0.004	0.08	0.89	0.11	6.08	1.12	2.46	1.50	0.19	47.04	0.03	0.461	0.008	0.92	0.28	3.68	0.09
2028 Sep	Mean	98.07	112.35	0.02	0.01	0.41	0.04	0.07	0.03	0.01	29.05	0.14	0.52	2.75	0.37	0.73	0.12	0.006	0.004	0.18	0.51	10.12	0.021	0.007	0.21	0.01	6.15	0.004	0.08	0.89	0.11	6.06	1.20	2.59	1.50	0.19	49.51	0.03	0.460	0.008	0.95	0.29	3.91	0.09
2028 Oct	Mean	122.26	140.15	0.02	0.01	0.45	0.05	0.08	0.04	0.01	36.23	0.15	0.65	2.97	0.45	0.83	0.15	0.007	0.006	0.23	0.64	12.63	0.023	0.007	0.26	0.02	6.71	0.006	0.10	1.09	0.13	7.60	1.30	2.93	1.87	0.24	55.98	0.04	0.573	0.009	1.11	0.35	4.62	0.11
2028 Nov	Mean	100.66	115.32	0.02	0.01	0.47	0.04	0.08	0.04	0.01	29.82	0.16	0.53	3.26	0.40	0.84	0.12	0.006	0.005	0.19	0.52	10.39	0.025	0.008	0.21	0.01	7.27	0.005	0.09	0.91	0.13	6.22	1.43	2.94	1.54	0.20	56.33	0.03	0.472	0.009	1.04	0.31	4.49	0.09
2028 Dec	Mean	103.47	118.53	0.02	0.01	0.56	0.04	0.09	0.05	0.01	30.65	0.20	0.55	4.07	0.44	1.01	0.13	0.007	0.005	0.19	0.53	10.68	0.032	0.010	0.22	0.01	9.05	0.005	0.11	0.94	0.16	6.39	1.78	3.50	1.58	0.20	66.90	0.03	0.485	0.011	1.19	0.35	5.46	0.10
2029 Jan	Mean	102.84	117.81	0.02	0.01	0.63	0.05	0.10	0.05	0.01	30.46	0.23	0.54																															

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Apr	Mean	137.21	157.56	0.02	0.01	0.61	0.06	0.10	0.06	0.01	40.71	0.22	0.74	4.31	0.54	1.18	0.17	0.011	0.007	0.26	0.73	14.23	0.034	0.010	0.29	0.02	9.86	0.006	0.13	1.18	0.18	8.67	1.83	3.96	2.11	0.26	74.50	0.04	0.641	0.013	1.40	0.42	7.52	0.13
2030 May	Mean	1705.82	1964.03	0.12	0.12	2.84	0.59	0.65	0.40	0.09	507.11	0.88	9.35	13.24	5.21	7.48	2.18	0.121	0.086	3.27	9.28	178.04	0.119	0.033	3.64	0.24	36.99	0.077	1.01	13.68	0.68	110.37	4.66	22.20	26.54	3.27	411.20	0.51	7.931	0.096	10.81	3.85	68.41	1.59
2030 Jun	Mean	1999.65	2302.61	0.14	0.14	3.03	0.68	0.72	0.44	0.11	594.51	0.91	10.97	12.92	6.01	8.29	2.55	0.141	0.101	3.84	10.89	208.76	0.120	0.033	4.27	0.29	37.79	0.091	1.14	15.99	0.70	129.51	4.30	24.28	31.12	3.83	448.95	0.60	9.296	0.108	12.25	4.42	78.23	1.86
2030 Jul	Mean	179.53	206.06	0.02	0.01	0.49	0.06	0.09	0.05	0.01	53.25	0.16	0.96	2.94	0.60	0.98	0.22	0.010	0.008	0.34	0.94	18.60	0.024	0.007	0.38	0.02	6.91	0.008	0.13	1.56	0.13	11.28	1.24	3.38	2.76	0.35	63.80	0.05	0.839	0.012	1.39	0.46	6.31	0.17
2030 Aug	Mean	97.81	112.07	0.02	0.01	0.41	0.04	0.07	0.04	0.01	28.98	0.14	0.52	2.77	0.37	0.73	0.12	0.006	0.004	0.18	0.51	10.10	0.022	0.007	0.21	0.01	6.20	0.004	0.08	0.89	0.11	6.05	1.21	2.62	1.49	0.19	49.71	0.03	0.459	0.008	0.95	0.29	3.95	0.09
2030 Sep	Mean	101.43	116.22	0.02	0.01	0.44	0.04	0.08	0.04	0.01	30.05	0.15	0.54	3.04	0.39	0.80	0.13	0.006	0.005	0.19	0.52	10.47	0.024	0.008	0.22	0.01	6.80	0.005	0.09	0.92	0.13	6.28	1.32	2.83	1.55	0.20	53.62	0.03	0.476	0.009	1.01	0.31	4.31	0.10
2030 Oct	Mean	96.78	110.88	0.02	0.01	0.44	0.04	0.07	0.04	0.01	28.67	0.15	0.51	3.05	0.38	0.79	0.12	0.006	0.004	0.18	0.50	9.99	0.024	0.008	0.21	0.01	6.80	0.004	0.09	0.88	0.13	5.98	1.33	2.80	1.48	0.19	53.07	0.03	0.454	0.009	0.99	0.30	4.22	0.09
2030 Nov	Mean	100.08	114.65	0.02	0.01	0.49	0.04	0.08	0.04	0.01	29.64	0.18	0.53	3.52	0.41	0.89	0.12	0.006	0.005	0.19	0.52	10.33	0.027	0.009	0.21	0.01	7.85	0.005	0.10	0.91	0.14	6.18	1.54	3.14	1.53	0.19	59.54	0.03	0.469	0.010	1.08	0.32	4.78	0.09
2030 Dec	Mean	102.75	117.70	0.02	0.01	0.60	0.04	0.10	0.05	0.01	30.43	0.22	0.54	4.40	0.45	1.07	0.13	0.008	0.005	0.19	0.53	10.60	0.034	0.011	0.22	0.01	9.79	0.005	0.11	0.93	0.18	6.34	1.92	3.75	1.57	0.20	70.95	0.03	0.482	0.011	1.24	0.36	5.82	0.10
2031 Jan	Mean	102.09	116.95	0.03	0.01	0.66	0.05	0.11	0.05	0.01	30.24	0.25	0.54	4.99	0.47	1.20	0.13	0.008	0.005	0.19	0.53	10.53	0.039	0.012	0.22	0.01	11.08	0.005	0.12	0.93	0.20	6.30	2.18	4.10	1.56	0.20	78.20	0.03	0.479	0.013	1.33	0.38	6.53	0.10
2031 Feb	Mean	99.68	114.19	0.03	0.01	0.68	0.05	0.11	0.06	0.01	29.52	0.25	0.53	5.14	0.47	1.22	0.12	0.008	0.005	0.19	0.51	10.28	0.040	0.012	0.21	0.01	11.39	0.005	0.12	0.91	0.21	6.15	2.25	4.13	1.52	0.19	79.64	0.03	0.467	0.013	1.34	0.38	6.71	0.09
2031 Mar	Mean	96.46	110.50	0.02	0.01	0.65	0.04	0.10	0.05	0.01	28.57	0.24	0.51	4.95	0.45	1.18	0.12	0.008	0.004	0.18	0.50	9.95	0.039	0.012	0.21	0.01	10.97	0.004	0.12	0.88	0.20	5.96	2.17	3.97	1.47	0.19	76.77	0.03	0.452	0.012	1.30	0.36	6.47	0.09
2031 Apr	Mean	135.50	155.68	0.03	0.01	0.65	0.06	0.11	0.06	0.01	40.22	0.24	0.73	4.74	0.55	1.30	0.17	0.012	0.007	0.26	0.72	14.07	0.038	0.011	0.29	0.02	10.86	0.006	0.13	1.15	0.19	8.60	2.01	4.11	2.09	0.26	79.06	0.04	0.632	0.014	1.45	0.43	8.66	0.13
2031 May	Mean	1899.86	2186.95	0.14	0.14	3.28	0.66	0.73	0.47	0.10	564.70	1.07	10.39	16.14	5.84	8.77	2.42	0.144	0.095	3.64	10.31	198.19	0.146	0.039	4.06	0.27	44.97	0.086	1.13	15.33	0.81	122.67	5.63	24.96	29.53	3.65	469.23	0.57	8.837	0.113	12.19	4.32	83.17	1.77
2031 Jun	Mean	2222.00	2557.56	0.15	0.16	3.42	0.76	0.80	0.51	0.12	660.41	1.06	12.15	15.14	6.69	9.46	2.83	0.163	0.111	4.26	12.05	231.75	0.142	0.037	4.74	0.31	44.29	0.101	1.27	17.97	0.80	143.37	4.99	26.80	34.53	4.26	502.58	0.67	10.337	0.125	13.66	4.92	92.02	2.07
2031 Jul	Mean	165.79	190.24	0.02	0.01	0.46	0.06	0.09	0.05	0.01	49.17	0.15	0.89	2.70	0.56	0.90	0.21	0.009	0.008	0.31	0.87	17.17	0.022	0.007	0.35	0.02	6.33	0.008	0.12	1.45	0.12	10.40	1.15	3.05	2.55	0.32	58.61	0.05	0.775	0.011	1.28	0.42	5.81	0.16
2031 Aug	Mean	97.49	111.70	0.02	0.01	0.42	0.04	0.07	0.04	0.01	28.88	0.14	0.52	2.84	0.37	0.75	0.12	0.006	0.004	0.18	0.50	10.06	0.022	0.007	0.21	0.01	6.34	0.004	0.09	0.88	0.12	6.03	1.25	2.61	1.49	0.19	50.52	0.03	0.457	0.008	0.96	0.29	4.06	0.09
2031 Sep	Mean	96.25	110.27	0.02	0.01	0.45	0.04	0.08	0.04	0.01	28.51	0.16	0.51	3.12	0.38	0.81	0.12	0.006	0.004	0.18	0.50	9.93	0.024	0.008	0.21	0.01	6.95	0.004	0.09	0.87	0.13	5.95	1.37	2.77	1.47	0.19	53.81	0.03	0.451	0.009	1.00	0.30	4.35	0.09
2031 Oct	Mean	95.74	109.68	0.02	0.01	0.47	0.04	0.08	0.04	0.01	28.36	0.17	0.51	3.33	0.39	0.85	0.12	0.006	0.004	0.18	0.49	9.88	0.026	0.008	0.20	0.01	7.40	0.004	0.09	0.87	0.14	5.92	1.46	2.91	1.46	0.19	56.34	0.03	0.449	0.009	1.03	0.31	4.57	0.09
2031 Nov	Mean	98.84	113.23	0.02	0.01	0.53	0.04	0.09	0.04	0.01	29.28	0.19	0.52	3.86	0.42	0.96	0.12	0.007	0.004	0.19	0.51	10.20	0.030	0.009	0.21	0.01	8.56	0.005	0.10	0.90	0.16	6.11	1.69	3.27	1.51	0.19	63.44	0.03	0.463	0.010	1.13	0.33	5.20	0.09
2031 Dec	Mean	101.13	115.85	0.02	0.01	0.65	0.05	0.11	0.05	0.01	29.95	0.24	0.53	4.89	0.46	1.18	0.13	0.008	0.005	0.19	0.52	10.43	0.038	0.012	0.22	0.01	10.84	0.005	0.12	0.92	0.20	6.25	2.14	3.96	1.54	0.20	76.74	0.03	0.474	0.012	1.31	0.37	6.44	0.09
2032 Jan	Mean	100.36	114.97	0.03	0.01	0.72	0.05	0.11	0.06	0.01	29.73	0.27	0.53	5.54	0.48	1.30	0.12	0.009	0.005	0.19	0.52	10.35	0.043	0.013	0.21	0.01	12.27	0.005	0.13	0.91	0.22	6.20	2.41	4.43	1.53	0.19	84.75	0.03	0.471	0.014	1.41	0.39	7.17	0.09
2032 Feb	Mean	98.17	112.46	0.03	0.01	0.73	0.05	0.12	0.06	0.01	29.08	0.28	0.52	5.64	0.48	1.32	0.12	0.009	0.004	0.18	0.51	10.13	0.044	0.014	0.21	0.01	12.51	0.004	0.13	0.89	0.22	6.06	2.45	4.54	1.50	0.19	85.72	0.03	0.460	0.014	1.42	0.39	7.24	0.09
2032 Mar	Mean	95.13	108.97	0.03	0.01	0.70	0.04	0.11	0.06	0.01	28.18	0.27	0.50	5.39	0.46	1.26	0.12	0.009	0.004	0.18	0.49	9.81	0.042	0.013	0.20	0.01	11.97	0.004	0.12	0.86	0.21	5.87	2.34	4.38	1.45	0.18	82.18	0.03	0.446	0.013	1.36	0.38	6.92	0.09
2032 Apr	Mean	167.53	192.46	0.03	0.01	0.70	0.07	0.12	0.07	0.01	49.72	0.26	0.90	4.93	0.64	1.40	0.21	0.014	0.008	0.32	0.89	17.40	0.039	0.012	0.36	0.02	11.40	0.008	0.15	1.42	0.20	10.62	2.06	4.62	2.58	0.32	86.35	0.05	0.782	0.016	1.65	0.50	9.43	0.16
2032 May	Mean	1831.26	2108.10	0.14	0.13	3.26	0.64	0.72	0.45	0.10	544.33	1.07	10.02	16.37	5.66	8.56	2.34	0.138	0.092	3.51	9.95	191.06	0.146	0.040	3.91	0.26	45.00	0.083	1.10	14.76	0.80	118.31	5.78	25.07	28.47	3.51	464.75	0.55	8.517	0.110	11.91	4.20	79.40	1.70
2032 Jun	Mean	1226.45	1411.61	0.09	0.09	1.99	0.42	0.46	0.29	0.07	364.51	0.63	6.70																															

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2033 Sep	Mean	104.46	119.69	0.02	0.01	0.44	0.04	0.08	0.04	0.01	30.95	0.17	0.55	3.18	0.40	0.80	0.13	0.006	0.005	0.20	0.54	10.78	0.023	0.008	0.22	0.01	7.24	0.005	0.09	0.94	0.12	6.46	1.31	3.41	1.60	0.20	56.36	0.03	0.490	0.009	1.05	0.31	4.29	0.10
2033 Oct	Mean	96.81	110.91	0.02	0.01	0.44	0.04	0.07	0.04	0.01	28.68	0.17	0.51	3.20	0.38	0.78	0.12	0.006	0.004	0.18	0.50	9.99	0.024	0.008	0.21	0.01	7.27	0.004	0.09	0.88	0.12	5.98	1.32	3.37	1.48	0.19	55.44	0.03	0.454	0.009	1.02	0.30	4.21	0.09
2033 Nov	Mean	99.74	114.26	0.02	0.01	0.50	0.04	0.08	0.04	0.01	29.54	0.19	0.53	3.73	0.41	0.89	0.12	0.006	0.005	0.19	0.51	10.29	0.027	0.009	0.21	0.01	8.47	0.005	0.10	0.91	0.14	6.16	1.54	3.83	1.52	0.19	62.68	0.03	0.468	0.010	1.12	0.32	4.80	0.09
2033 Dec	Mean	102.38	117.29	0.02	0.01	0.60	0.04	0.10	0.05	0.01	30.33	0.25	0.54	4.73	0.45	1.09	0.13	0.008	0.005	0.19	0.53	10.56	0.035	0.012	0.22	0.01	10.72	0.005	0.11	0.93	0.18	6.32	1.95	4.66	1.56	0.20	75.78	0.03	0.480	0.012	1.30	0.36	5.93	0.10
2034 Jan	Mean	101.93	116.76	0.03	0.01	0.67	0.05	0.11	0.06	0.01	30.19	0.27	0.54	5.30	0.47	1.21	0.13	0.008	0.005	0.19	0.53	10.52	0.039	0.013	0.22	0.01	11.96	0.005	0.12	0.93	0.20	6.29	2.20	5.02	1.56	0.20	82.82	0.03	0.478	0.013	1.39	0.38	6.60	0.10
2034 Feb	Mean	99.94	114.48	0.03	0.01	0.67	0.05	0.11	0.06	0.01	29.60	0.27	0.53	5.30	0.46	1.21	0.12	0.008	0.005	0.19	0.52	10.31	0.040	0.013	0.21	0.01	11.93	0.005	0.12	0.91	0.20	6.17	2.22	4.90	1.53	0.19	82.38	0.03	0.469	0.013	1.38	0.38	6.62	0.09
2034 Mar	Mean	96.98	111.10	0.02	0.01	0.63	0.04	0.10	0.05	0.01	28.73	0.25	0.51	4.98	0.45	1.15	0.12	0.008	0.004	0.18	0.50	10.01	0.037	0.012	0.21	0.01	11.20	0.004	0.11	0.88	0.19	5.99	2.09	4.59	1.48	0.19	77.84	0.03	0.455	0.012	1.31	0.36	6.26	0.09
2034 Apr	Mean	159.68	183.22	0.02	0.01	0.62	0.06	0.11	0.06	0.01	47.35	0.23	0.85	4.37	0.60	1.19	0.20	0.011	0.008	0.30	0.84	16.54	0.033	0.011	0.34	0.02	10.08	0.007	0.13	1.40	0.18	10.01	1.81	4.59	2.45	0.31	79.16	0.05	0.747	0.013	1.53	0.47	7.31	0.15
2034 May	Mean	1987.66	2289.05	0.15	0.15	3.32	0.69	0.76	0.48	0.11	590.99	1.09	10.91	16.11	6.09	8.95	2.54	0.152	0.100	3.82	10.84	207.56	0.143	0.041	4.25	0.28	45.51	0.090	1.17	15.85	0.81	128.87	5.48	27.82	30.95	3.81	486.63	0.60	9.238	0.116	12.72	4.52	84.17	1.85
2034 Jun	Mean	1861.88	2144.20	0.13	0.14	2.83	0.64	0.67	0.42	0.10	553.59	0.90	10.22	12.59	5.61	7.90	2.38	0.139	0.094	3.58	10.16	194.43	0.115	0.032	3.98	0.27	37.09	0.084	1.06	14.85	0.67	120.72	4.08	24.15	28.99	3.57	424.12	0.56	8.653	0.104	11.51	4.15	76.22	1.73
2034 Jul	Mean	162.10	186.15	0.02	0.01	0.43	0.06	0.08	0.04	0.01	48.10	0.14	0.87	2.59	0.54	0.87	0.20	0.010	0.008	0.31	0.86	16.82	0.020	0.007	0.35	0.02	6.21	0.007	0.11	1.39	0.11	10.24	1.05	3.25	2.50	0.31	56.89	0.05	0.757	0.010	1.25	0.41	5.92	0.15
2034 Aug	Mean	140.89	161.81	0.02	0.01	0.49	0.05	0.09	0.05	0.01	41.81	0.18	0.76	3.38	0.51	0.99	0.18	0.010	0.007	0.27	0.75	14.62	0.026	0.008	0.30	0.02	7.92	0.006	0.11	1.20	0.14	8.91	1.38	3.68	2.17	0.27	63.59	0.04	0.658	0.011	1.27	0.39	6.52	0.13
2034 Sep	Mean	97.30	111.49	0.02	0.01	0.41	0.04	0.07	0.04	0.01	28.82	0.15	0.52	2.90	0.37	0.74	0.12	0.006	0.004	0.18	0.50	10.04	0.022	0.007	0.21	0.01	6.56	0.004	0.09	0.88	0.12	6.02	1.22	2.98	1.49	0.19	51.59	0.03	0.456	0.008	0.97	0.29	3.97	0.09
2034 Oct	Mean	97.06	111.20	0.02	0.01	0.42	0.04	0.07	0.04	0.01	28.75	0.16	0.51	3.03	0.38	0.76	0.12	0.006	0.004	0.18	0.50	10.02	0.023	0.008	0.21	0.01	6.86	0.004	0.09	0.88	0.12	6.00	1.28	3.08	1.48	0.19	53.23	0.03	0.455	0.008	0.99	0.30	4.09	0.09
2034 Nov	Mean	100.21	114.79	0.02	0.01	0.49	0.04	0.08	0.04	0.01	29.68	0.18	0.53	3.58	0.40	0.88	0.12	0.006	0.005	0.19	0.52	10.34	0.027	0.009	0.21	0.01	8.08	0.005	0.10	0.91	0.14	6.19	1.51	3.52	1.53	0.19	60.64	0.03	0.470	0.009	1.10	0.32	4.71	0.09
2034 Dec	Mean	103.01	118.01	0.02	0.01	0.59	0.04	0.10	0.05	0.01	30.51	0.23	0.54	4.51	0.45	1.06	0.13	0.008	0.005	0.19	0.53	10.63	0.034	0.011	0.22	0.01	10.14	0.005	0.11	0.94	0.18	6.36	1.90	4.25	1.57	0.20	72.78	0.03	0.483	0.011	1.26	0.36	5.77	0.10
2035 Jan	Mean	99.14	113.58	0.03	0.01	0.77	0.05	0.12	0.07	0.01	29.37	0.32	0.52	6.24	0.50	1.40	0.12	0.009	0.005	0.19	0.51	10.23	0.047	0.015	0.21	0.01	14.01	0.005	0.13	0.90	0.24	6.12	2.61	5.58	1.51	0.19	94.07	0.03	0.465	0.014	1.52	0.41	7.70	0.09
2035 Feb	Mean	93.34	106.92	0.03	0.01	0.91	0.05	0.14	0.08	0.01	27.65	0.38	0.49	7.57	0.53	1.64	0.12	0.011	0.004	0.18	0.48	9.63	0.056	0.018	0.20	0.01	16.97	0.004	0.15	0.85	0.28	5.76	3.16	6.59	1.42	0.18	109.92	0.03	0.438	0.017	1.71	0.44	9.15	0.09
2035 Mar	Mean	89.10	102.07	0.03	0.01	0.92	0.05	0.14	0.08	0.00	26.39	0.39	0.47	7.68	0.52	1.66	0.11	0.011	0.004	0.17	0.46	9.19	0.057	0.019	0.19	0.01	17.22	0.004	0.15	0.81	0.29	5.50	3.20	6.65	1.36	0.17	110.69	0.03	0.418	0.017	1.71	0.43	9.25	0.08
2035 Apr	Mean	205.89	236.36	0.04	0.02	1.11	0.09	0.18	0.10	0.01	61.08	0.45	1.11	8.63	0.88	2.17	0.26	0.019	0.010	0.39	1.09	21.35	0.066	0.021	0.44	0.03	19.89	0.009	0.21	1.78	0.33	12.97	3.52	8.27	3.17	0.40	139.01	0.06	0.962	0.024	2.45	0.70	14.07	0.19
2035 May	Mean	2236.76	2570.36	0.19	0.15	4.36	0.78	0.93	0.55	0.12	664.02	1.44	12.09	23.16	6.99	10.30	2.82	0.152	0.108	4.26	11.93	232.42	0.192	0.059	4.77	0.31	60.64	0.102	1.36	18.85	1.08	142.19	8.58	35.05	34.54	4.31	612.14	0.67	10.434	0.132	15.07	5.23	86.88	2.09
2035 Jun	Mean	2261.33	2598.78	0.17	0.15	3.83	0.77	0.86	0.52	0.12	671.35	1.20	12.23	18.23	6.88	9.46	2.86	0.151	0.110	4.31	12.07	235.02	0.157	0.047	4.83	0.31	50.01	0.103	1.30	19.03	0.91	143.85	6.47	31.38	34.93	4.36	552.20	0.67	10.548	0.125	14.38	5.11	83.76	2.11
2035 Jul	Mean	179.00	205.43	0.02	0.01	0.61	0.07	0.11	0.06	0.01	53.09	0.23	0.96	4.21	0.64	1.22	0.22	0.012	0.008	0.34	0.94	18.55	0.032	0.011	0.38	0.02	9.89	0.008	0.14	1.56	0.17	11.24	1.71	4.66	2.75	0.35	79.66	0.05	0.837	0.014	1.60	0.50	8.05	0.17
2035 Aug	Mean	110.57	126.72	0.02	0.01	0.61	0.05	0.10	0.05	0.01	32.76	0.24	0.59	4.68	0.47	1.12	0.14	0.008	0.005	0.21	0.57	11.42	0.035	0.012	0.24	0.01	10.59	0.005	0.12	0.99	0.18	6.86	1.95	4.50	1.69	0.21	76.01	0.03	0.518	0.012	1.33	0.38	6.26	0.10
2035 Sep	Mean	91.97	105.37	0.02	0.01	0.61	0.04	0.10	0.05	0.01	27.24	0.25	0.49	4.80	0.42	1.10	0.11	0.008	0.004	0.17	0.47	9.49	0.036	0.012	0.20	0.01	10.81	0.004	0.11	0.83	0.18	5.68	2.00	4.45	1.40	0.18	74.81	0.03	0.431	0.012	1.25	0.34	6.04	0.09
2035 Oct	Mean	107.39	123.06	0.03	0.01	0.70	0.05	0.11	0.06	0.01	31.81	0.28	0.57	5.50	0.49	1.27	0.13	0.009	0.005	0.20	0.56	11.09	0.041	0.014	0.23	0.01	12.40	0.005	0.13	0.97	0.21	6.65	2.29	5.11	1.64	0.21	85.92	0.03	0.503	0.013	1.45	0.40	7.09	0.10
2035 Nov	Mean	93.59	107.22	0.03	0.01	0.73	0.05	0.11	0.06	0.01	27.72	0.30	0.50																															

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2037 Feb	Mean	91.56	104.88	0.04	0.01	0.97	0.05	0.15	0.08	0.01	27.12	0.41	0.48	8.17	0.54	1.76	0.11	0.011	0.004	0.17	0.47	9.45	0.061	0.020	0.20	0.01	18.33	0.004	0.15	0.83	0.30	5.65	3.40	7.06	1.40	0.18	117.32	0.03	0.429	0.018	1.80	0.45	9.82	0.09
2037 Mar	Mean	88.80	101.72	0.03	0.01	0.93	0.05	0.14	0.08	0.00	26.30	0.40	0.47	7.81	0.52	1.68	0.11	0.011	0.004	0.17	0.46	9.16	0.058	0.019	0.19	0.01	17.52	0.004	0.15	0.81	0.29	5.48	3.25	6.76	1.36	0.17	112.34	0.03	0.416	0.017	1.73	0.44	9.40	0.08
2037 Apr	Mean	85.41	97.84	0.03	0.01	0.74	0.04	0.11	0.06	0.00	25.30	0.31	0.45	6.07	0.45	1.34	0.11	0.009	0.004	0.16	0.44	8.81	0.045	0.015	0.18	0.01	13.62	0.004	0.12	0.78	0.23	5.27	2.53	5.38	1.30	0.17	89.73	0.03	0.401	0.014	1.43	0.37	7.44	0.08
2037 May	Mean	2133.01	2443.45	0.19	0.13	4.39	0.73	0.92	0.54	0.12	631.78	1.46	11.28	24.11	6.66	9.62	2.64	0.138	0.097	4.02	11.00	220.06	0.197	0.061	4.55	0.28	61.78	0.097	1.26	19.39	1.09	131.70	9.11	34.31	32.55	4.14	597.74	0.63	10.003	0.127	14.50	5.01	80.19	2.00
2037 Jun	Mean	2114.26	2421.97	0.16	0.13	3.55	0.70	0.80	0.48	0.12	626.23	1.09	11.18	16.57	6.34	8.15	2.62	0.131	0.096	3.98	10.90	218.12	0.142	0.043	4.51	0.28	45.13	0.096	1.15	19.22	0.81	130.54	5.95	28.29	32.27	4.10	498.75	0.62	9.915	0.113	13.16	4.72	72.70	1.98
2037 Jul	Mean	189.74	217.35	0.02	0.01	0.61	0.07	0.11	0.06	0.01	56.20	0.22	1.00	4.09	0.67	1.18	0.23	0.012	0.009	0.36	0.98	19.57	0.031	0.010	0.40	0.02	9.58	0.009	0.14	1.72	0.17	11.72	1.67	4.62	2.90	0.37	79.39	0.06	0.890	0.014	1.62	0.51	7.58	0.18
2037 Aug	Mean	107.66	123.33	0.02	0.01	0.56	0.05	0.09	0.05	0.01	31.89	0.22	0.57	4.26	0.45	1.03	0.13	0.008	0.005	0.20	0.55	11.11	0.032	0.011	0.23	0.01	9.67	0.005	0.11	0.98	0.17	6.65	1.77	4.14	1.64	0.21	70.07	0.03	0.505	0.011	1.24	0.36	5.88	0.10
2037 Sep	Mean	99.34	113.80	0.02	0.01	0.59	0.04	0.10	0.05	0.01	29.42	0.24	0.53	4.61	0.44	1.08	0.12	0.008	0.005	0.19	0.51	10.25	0.034	0.011	0.21	0.01	10.39	0.005	0.11	0.90	0.18	6.13	1.92	4.36	1.52	0.19	73.42	0.03	0.466	0.011	1.26	0.35	5.93	0.09
2037 Oct	Mean	97.24	111.39	0.02	0.01	0.63	0.04	0.10	0.05	0.01	28.80	0.25	0.51	4.96	0.44	1.14	0.12	0.008	0.004	0.18	0.50	10.03	0.037	0.012	0.21	0.01	11.18	0.004	0.11	0.88	0.19	6.00	2.07	4.61	1.48	0.19	77.60	0.03	0.456	0.012	1.31	0.36	6.29	0.09
2037 Nov	Mean	117.74	134.88	0.03	0.01	0.75	0.05	0.12	0.07	0.01	34.87	0.30	0.62	5.91	0.53	1.38	0.15	0.010	0.005	0.22	0.61	12.15	0.044	0.015	0.25	0.02	13.38	0.005	0.14	1.07	0.23	7.27	2.45	5.49	1.80	0.23	92.25	0.03	0.552	0.015	1.56	0.43	7.97	0.11
2037 Dec	Mean	96.20	110.20	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.49	0.35	0.51	6.87	0.51	1.51	0.12	0.010	0.004	0.18	0.50	9.92	0.051	0.017	0.21	0.01	15.42	0.004	0.14	0.87	0.26	5.94	2.86	6.09	1.47	0.19	101.59	0.03	0.451	0.016	1.61	0.42	8.38	0.09
2038 Jan	Mean	94.83	108.63	0.03	0.01	0.93	0.05	0.14	0.08	0.01	28.09	0.39	0.50	7.75	0.54	1.68	0.12	0.011	0.004	0.18	0.49	9.78	0.058	0.019	0.20	0.01	17.38	0.004	0.15	0.86	0.29	5.86	3.23	6.76	1.45	0.18	112.46	0.03	0.445	0.017	1.75	0.45	9.36	0.09
2038 Feb	Mean	92.50	105.96	0.04	0.01	0.94	0.05	0.14	0.08	0.01	27.40	0.40	0.49	7.91	0.54	1.71	0.11	0.011	0.004	0.17	0.48	9.54	0.059	0.019	0.20	0.01	17.73	0.004	0.15	0.84	0.29	5.71	3.29	6.86	1.41	0.18	114.09	0.03	0.434	0.017	1.76	0.45	9.52	0.09
2038 Mar	Mean	89.54	102.57	0.03	0.01	0.91	0.05	0.14	0.08	0.00	26.52	0.39	0.47	7.64	0.52	1.65	0.11	0.011	0.004	0.17	0.46	9.24	0.057	0.019	0.19	0.01	17.12	0.004	0.15	0.81	0.28	5.53	3.18	6.63	1.37	0.17	110.22	0.03	0.420	0.017	1.70	0.43	9.20	0.08
2038 Apr	Mean	105.50	120.85	0.03	0.01	0.76	0.05	0.12	0.07	0.01	31.25	0.31	0.56	6.12	0.51	1.39	0.13	0.010	0.005	0.20	0.54	10.88	0.046	0.015	0.22	0.01	13.82	0.005	0.13	0.96	0.23	6.51	2.54	5.57	1.61	0.20	93.22	0.03	0.495	0.015	1.53	0.41	7.98	0.10
2038 May	Mean	2604.05	2983.04	0.22	0.15	5.22	0.88	1.10	0.63	0.14	771.30	1.68	13.77	27.77	8.08	11.26	3.22	0.158	0.118	4.90	13.42	268.65	0.226	0.072	5.55	0.34	70.98	0.119	1.53	23.67	1.27	160.78	10.60	40.77	39.74	5.06	713.55	0.77	12.212	0.149	17.47	6.06	90.96	2.44
2038 Jun	Mean	1663.76	1905.91	0.12	0.10	2.79	0.55	0.63	0.37	0.09	492.79	0.84	8.80	12.89	4.99	6.33	2.06	0.100	0.076	3.13	8.58	171.64	0.109	0.034	3.55	0.22	34.92	0.076	0.91	15.12	0.64	102.73	4.68	22.21	25.39	3.23	392.28	0.49	7.802	0.088	10.35	3.71	55.23	1.56
2038 Jul	Mean	138.56	158.73	0.02	0.01	0.52	0.05	0.09	0.05	0.01	41.04	0.20	0.73	3.69	0.51	1.00	0.17	0.009	0.006	0.26	0.71	14.30	0.028	0.009	0.30	0.02	8.54	0.006	0.11	1.26	0.15	8.56	1.52	3.92	2.11	0.27	66.90	0.04	0.650	0.011	1.30	0.40	6.23	0.13
2038 Aug	Mean	102.11	116.98	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.25	0.21	0.54	4.17	0.43	1.00	0.13	0.007	0.005	0.19	0.53	10.53	0.031	0.010	0.22	0.01	9.42	0.005	0.10	0.93	0.16	6.30	1.74	4.04	1.56	0.20	68.27	0.03	0.479	0.011	1.20	0.34	5.51	0.10
2038 Sep	Mean	95.28	109.14	0.02	0.01	0.57	0.04	0.09	0.05	0.01	28.22	0.23	0.50	4.45	0.42	1.04	0.12	0.007	0.004	0.18	0.49	9.83	0.033	0.011	0.20	0.01	10.04	0.004	0.11	0.87	0.17	5.88	1.86	4.21	1.45	0.18	70.89	0.03	0.447	0.011	1.21	0.34	5.69	0.09
2038 Oct	Mean	95.47	109.37	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.28	0.24	0.51	4.79	0.43	1.10	0.12	0.008	0.004	0.18	0.49	9.85	0.036	0.012	0.20	0.01	10.79	0.004	0.11	0.87	0.18	5.89	2.00	4.47	1.46	0.19	75.18	0.03	0.448	0.012	1.27	0.35	6.06	0.09
2038 Nov	Mean	94.91	108.72	0.03	0.01	0.68	0.04	0.11	0.06	0.01	28.11	0.28	0.50	5.45	0.46	1.23	0.12	0.008	0.004	0.18	0.49	9.79	0.041	0.013	0.20	0.01	12.26	0.004	0.12	0.86	0.21	5.86	2.28	4.98	1.45	0.18	83.50	0.03	0.445	0.013	1.37	0.37	6.78	0.09
2038 Dec	Mean	96.54	110.59	0.03	0.01	0.83	0.05	0.13	0.07	0.01	28.59	0.34	0.51	6.77	0.51	1.49	0.12	0.010	0.004	0.18	0.50	9.96	0.051	0.017	0.21	0.01	15.21	0.004	0.14	0.88	0.25	5.96	2.82	6.01	1.47	0.19	100.41	0.03	0.453	0.015	1.60	0.42	8.27	0.09
2039 Jan	Mean	95.21	109.07	0.03	0.01	0.92	0.05	0.14	0.08	0.01	28.20	0.39	0.50	7.64	0.54	1.66	0.12	0.011	0.004	0.18	0.49	9.82	0.057	0.019	0.20	0.01	17.14	0.004	0.15	0.87	0.29	5.88	3.18	6.68	1.45	0.18	111.16	0.03	0.446	0.017	1.73	0.44	9.24	0.09
2039 Feb	Mean	92.80	106.30	0.03	0.01	0.93	0.05	0.14	0.08	0.01	27.49	0.39	0.49	7.80	0.53	1.69	0.11	0.011	0.004	0.17	0.48	9.57	0.058	0.019	0.20	0.01	17.50	0.004	0.15	0.84	0.29	5.73	3.25	6.78	1.42	0.18	112.81	0.03	0.435	0.017	1.75	0.44	9.41	0.09
2039 Mar	Mean	89.77	102.84	0.03	0.01	0.90	0.05	0.14	0.08	0.00	26.59	0.38	0.47	7.54	0.52	1.63	0.11	0.011	0.004	0.17	0.46	9.26	0.056	0.018	0.19	0.01	16.91	0.004	0.15	0.82	0.28	5.54	3.14	6.56	1.37	0.17	109.06	0.03	0.421	0.017	1.69	0.43	9.09	0.08
2039 Apr	Mean	165.53	189.62	0.04	0.01	0.97	0.07	0.16	0.09	0.01	49.03	0.40	0.88	7.6																														

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2040 Jul	Mean	161.07	184.51	0.02	0.01	0.53	0.06	0.10	0.05	0.01	47.71	0.19	0.85	3.51	0.57	1.00	0.20	0.009	0.007	0.30	0.83	16.62	0.027	0.009	0.34	0.02	8.15	0.007	0.12	1.46	0.14	9.94	1.45	3.97	2.46	0.31	68.25	0.05	0.755	0.012	1.39	0.44	6.05	0.15
2040 Aug	Mean	185.05	211.98	0.03	0.01	0.78	0.07	0.14	0.07	0.01	54.81	0.30	0.98	5.68	0.71	1.48	0.23	0.013	0.008	0.35	0.95	19.09	0.043	0.014	0.39	0.02	13.11	0.008	0.16	1.68	0.22	11.43	2.33	5.82	2.82	0.36	98.77	0.05	0.868	0.017	1.86	0.56	9.27	0.17
2040 Sep	Mean	127.48	146.03	0.03	0.01	0.69	0.05	0.11	0.06	0.01	37.76	0.27	0.67	5.31	0.54	1.27	0.16	0.010	0.006	0.24	0.66	13.15	0.040	0.013	0.27	0.02	12.04	0.006	0.13	1.16	0.21	7.87	2.21	5.11	1.95	0.25	86.34	0.04	0.598	0.014	1.51	0.43	7.25	0.12
2040 Oct	Mean	92.84	106.35	0.02	0.01	0.58	0.04	0.09	0.05	0.01	27.50	0.23	0.49	4.50	0.42	1.04	0.11	0.007	0.004	0.17	0.48	9.58	0.034	0.011	0.20	0.01	10.14	0.004	0.10	0.84	0.17	5.73	1.88	4.23	1.42	0.18	71.17	0.03	0.435	0.011	1.21	0.33	5.70	0.09
2040 Nov	Mean	95.38	109.26	0.03	0.01	0.67	0.04	0.11	0.06	0.01	28.25	0.27	0.50	5.30	0.45	1.20	0.12	0.008	0.004	0.18	0.49	9.84	0.040	0.013	0.20	0.01	11.92	0.004	0.12	0.87	0.20	5.89	2.21	4.87	1.46	0.19	81.65	0.03	0.447	0.013	1.35	0.37	6.60	0.09
2040 Dec	Mean	96.88	110.98	0.03	0.01	0.81	0.05	0.13	0.07	0.01	28.69	0.34	0.51	6.65	0.50	1.47	0.12	0.010	0.004	0.18	0.50	9.99	0.050	0.016	0.21	0.01	14.94	0.004	0.14	0.88	0.25	5.98	2.77	5.93	1.48	0.19	98.97	0.03	0.454	0.015	1.58	0.41	8.14	0.09
2041 Jan	Mean	95.57	109.48	0.03	0.01	0.91	0.05	0.14	0.08	0.01	28.31	0.38	0.51	7.52	0.53	1.64	0.12	0.011	0.004	0.18	0.49	9.86	0.056	0.018	0.20	0.01	16.88	0.004	0.15	0.87	0.28	5.90	3.13	6.59	1.46	0.19	109.74	0.03	0.448	0.017	1.72	0.44	9.11	0.09
2041 Feb	Mean	93.17	106.73	0.03	0.01	0.92	0.05	0.14	0.08	0.01	27.60	0.39	0.49	7.68	0.53	1.66	0.12	0.011	0.004	0.18	0.48	9.61	0.057	0.019	0.20	0.01	17.23	0.004	0.15	0.85	0.29	5.75	3.20	6.69	1.42	0.18	111.36	0.03	0.437	0.017	1.73	0.44	9.27	0.09
2041 Mar	Mean	90.14	103.26	0.03	0.01	0.89	0.05	0.14	0.07	0.01	26.70	0.37	0.48	7.41	0.51	1.61	0.11	0.011	0.004	0.17	0.46	9.30	0.055	0.018	0.19	0.01	16.61	0.004	0.14	0.82	0.28	5.57	3.09	6.45	1.38	0.17	107.42	0.03	0.423	0.016	1.67	0.43	8.94	0.08
2041 Apr	Mean	103.26	118.29	0.03	0.01	0.73	0.05	0.12	0.06	0.01	30.58	0.30	0.55	5.92	0.50	1.36	0.13	0.010	0.005	0.19	0.53	10.65	0.044	0.014	0.22	0.01	13.42	0.005	0.13	0.94	0.22	6.38	2.45	5.39	1.58	0.20	90.07	0.03	0.484	0.014	1.49	0.40	8.05	0.10
2041 May	Mean	2264.83	2594.46	0.19	0.14	4.45	0.77	0.95	0.56	0.13	670.83	1.45	11.98	23.68	7.01	9.85	2.80	0.145	0.103	4.26	11.68	233.66	0.195	0.061	4.83	0.30	61.38	0.103	1.32	20.58	1.09	139.84	8.87	34.94	34.56	4.40	610.27	0.67	10.621	0.132	15.08	5.25	83.32	2.12
2041 Jun	Mean	2153.07	2466.43	0.16	0.13	3.53	0.71	0.80	0.48	0.12	637.72	1.06	11.39	16.06	6.43	8.13	2.67	0.131	0.098	4.05	11.10	222.13	0.138	0.042	4.59	0.28	44.07	0.098	1.16	19.57	0.80	132.94	5.73	28.18	32.86	4.18	497.90	0.64	10.097	0.114	13.27	4.78	72.72	2.02
2041 Jul	Mean	160.99	184.42	0.02	0.01	0.52	0.06	0.10	0.05	0.01	47.68	0.18	0.85	3.43	0.56	0.98	0.20	0.009	0.007	0.30	0.83	16.61	0.026	0.009	0.34	0.02	7.97	0.007	0.12	1.46	0.14	9.94	1.42	3.90	2.46	0.31	67.25	0.05	0.755	0.011	1.37	0.43	5.93	0.15
2041 Aug	Mean	160.27	183.59	0.03	0.01	0.69	0.06	0.12	0.06	0.01	47.47	0.27	0.85	5.07	0.62	1.31	0.20	0.011	0.007	0.30	0.83	16.53	0.038	0.013	0.34	0.02	11.65	0.007	0.14	1.46	0.20	9.90	2.09	5.16	2.45	0.31	87.60	0.05	0.752	0.015	1.63	0.49	7.99	0.15
2041 Sep	Mean	149.18	170.89	0.03	0.01	0.74	0.06	0.12	0.07	0.01	44.19	0.29	0.79	5.56	0.61	1.39	0.18	0.012	0.007	0.28	0.77	15.39	0.042	0.014	0.32	0.02	12.76	0.007	0.14	1.36	0.22	9.21	2.29	5.45	2.28	0.29	92.03	0.04	0.700	0.015	1.66	0.48	8.59	0.14
2041 Oct	Mean	93.44	107.04	0.02	0.01	0.56	0.04	0.09	0.05	0.01	27.68	0.22	0.49	4.37	0.41	1.02	0.12	0.007	0.004	0.18	0.48	9.64	0.033	0.011	0.20	0.01	9.85	0.004	0.10	0.85	0.17	5.77	1.83	4.13	1.43	0.18	69.62	0.03	0.438	0.011	1.19	0.33	5.56	0.09
2041 Nov	Mean	95.90	109.86	0.02	0.01	0.65	0.04	0.10	0.06	0.01	28.41	0.26	0.51	5.14	0.45	1.17	0.12	0.008	0.004	0.18	0.49	9.89	0.038	0.013	0.20	0.01	11.56	0.004	0.12	0.87	0.20	5.92	2.14	4.74	1.46	0.19	79.65	0.03	0.450	0.012	1.33	0.36	6.42	0.09
2041 Dec	Mean	97.53	111.72	0.03	0.01	0.79	0.05	0.12	0.07	0.01	28.89	0.33	0.52	6.44	0.50	1.43	0.12	0.010	0.004	0.18	0.50	10.06	0.048	0.016	0.21	0.01	14.47	0.004	0.13	0.89	0.24	6.02	2.69	5.76	1.49	0.19	96.37	0.03	0.457	0.015	1.55	0.41	7.90	0.09
2042 Jan	Mean	96.27	110.28	0.03	0.01	0.88	0.05	0.14	0.07	0.01	28.52	0.37	0.51	7.29	0.53	1.59	0.12	0.011	0.004	0.18	0.50	9.93	0.054	0.018	0.21	0.01	16.36	0.004	0.14	0.87	0.27	5.94	3.04	6.41	1.47	0.19	106.90	0.03	0.451	0.016	1.68	0.43	8.85	0.09
2042 Feb	Mean	93.85	107.51	0.03	0.01	0.90	0.05	0.14	0.08	0.01	27.80	0.38	0.50	7.46	0.53	1.62	0.12	0.011	0.004	0.18	0.48	9.68	0.056	0.018	0.20	0.01	16.73	0.004	0.15	0.85	0.28	5.79	3.11	6.52	1.43	0.18	108.65	0.03	0.440	0.017	1.70	0.43	9.02	0.09
2042 Mar	Mean	90.82	104.04	0.03	0.01	0.87	0.05	0.13	0.07	0.01	26.90	0.37	0.48	7.21	0.51	1.57	0.11	0.010	0.004	0.17	0.47	9.37	0.054	0.018	0.19	0.01	16.17	0.004	0.14	0.83	0.27	5.61	3.00	6.30	1.39	0.18	105.00	0.03	0.426	0.016	1.64	0.42	8.72	0.09
2042 Apr	Mean	117.43	134.52	0.03	0.01	0.76	0.05	0.12	0.07	0.01	34.78	0.31	0.62	6.01	0.54	1.39	0.15	0.010	0.005	0.22	0.61	12.12	0.045	0.015	0.25	0.02	13.58	0.005	0.14	1.07	0.23	7.25	2.50	5.58	1.79	0.23	93.63	0.03	0.551	0.015	1.58	0.43	7.94	0.11
2042 May	Mean	2250.08	2577.56	0.19	0.14	4.29	0.76	0.92	0.55	0.13	666.46	1.39	11.90	22.42	6.92	9.60	2.79	0.144	0.102	4.24	11.60	232.13	0.186	0.058	4.80	0.29	58.64	0.103	1.29	20.45	1.04	138.93	8.33	33.82	34.34	4.37	591.54	0.67	10.552	0.129	14.79	5.18	82.37	2.11
2042 Jun	Mean	2378.60	2724.78	0.17	0.14	3.90	0.79	0.89	0.53	0.13	704.52	1.18	12.58	17.81	7.10	8.99	2.95	0.145	0.108	4.48	12.26	245.39	0.153	0.047	5.07	0.31	48.85	0.109	1.28	21.62	0.89	146.86	6.36	31.19	36.30	4.62	550.93	0.70	11.155	0.126	14.67	5.28	80.43	2.23
2042 Jul	Mean	176.57	202.27	0.02	0.01	0.60	0.07	0.11	0.06	0.01	52.30	0.22	0.93	4.07	0.63	1.15	0.22	0.011	0.008	0.33	0.91	18.22	0.031	0.010	0.38	0.02	9.49	0.008	0.14	1.60	0.17	10.90	1.66	4.50	2.69	0.34	77.13	0.05	0.828	0.013	1.55	0.49	7.33	0.17
2042 Aug	Mean	103.27	118.30	0.02	0.01	0.52	0.04	0.09	0.05	0.01	30.59	0.20	0.55	3.85	0.42	0.94	0.13	0.007	0.005	0.19	0.53	10.65	0.029	0.010	0.22	0.01	8.73	0.005	0.10	0.94	0.15	6.38	1.61	3.80	1.58	0.20	64.44	0.03	0.484	0.010	1.15	0.33	5.18	0.10
2042 Sep	Mean	93.83	107.49	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.79	0.21	0.50	4.12																														

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2043 Dec	Mean	98.03	112.30	0.03	0.01	0.77	0.05	0.12	0.07	0.01	29.04	0.32	0.52	6.26	0.49	1.39	0.12	0.009	0.004	0.18	0.51	10.11	0.047	0.015	0.21	0.01	14.07	0.004	0.13	0.89	0.24	6.05	2.61	5.63	1.50	0.19	94.20	0.03	0.460	0.014	1.52	0.40	7.70	0.09
2044 Jan	Mean	96.80	110.89	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.67	0.36	0.51	7.13	0.52	1.56	0.12	0.010	0.004	0.18	0.50	9.99	0.053	0.017	0.21	0.01	16.01	0.004	0.14	0.88	0.27	5.98	2.97	6.29	1.48	0.19	104.99	0.03	0.454	0.016	1.66	0.43	8.68	0.09
2044 Feb	Mean	94.32	108.05	0.03	0.01	0.88	0.05	0.14	0.07	0.01	27.94	0.37	0.50	7.32	0.52	1.60	0.12	0.011	0.004	0.18	0.49	9.73	0.055	0.018	0.20	0.01	16.42	0.004	0.14	0.86	0.27	5.82	3.05	6.42	1.44	0.18	106.97	0.03	0.442	0.016	1.68	0.43	8.87	0.09
2044 Mar	Mean	91.12	104.38	0.03	0.01	0.85	0.05	0.13	0.07	0.01	26.99	0.36	0.48	7.08	0.50	1.54	0.11	0.010	0.004	0.17	0.47	9.40	0.053	0.017	0.19	0.01	15.88	0.004	0.14	0.83	0.26	5.63	2.95	6.21	1.39	0.18	103.40	0.03	0.427	0.016	1.62	0.42	8.58	0.09
2044 Apr	Mean	122.09	139.86	0.03	0.01	0.73	0.05	0.12	0.07	0.01	36.16	0.30	0.65	5.71	0.54	1.37	0.15	0.011	0.006	0.23	0.63	12.60	0.043	0.014	0.26	0.02	13.03	0.006	0.13	1.11	0.22	7.54	2.35	5.35	1.86	0.24	89.78	0.04	0.573	0.015	1.54	0.43	8.43	0.11
2044 May	Mean	2387.28	2734.73	0.20	0.14	4.68	0.81	1.00	0.58	0.13	707.09	1.50	12.63	24.59	7.38	10.20	2.96	0.146	0.109	4.49	12.31	246.29	0.201	0.064	5.09	0.31	63.34	0.109	1.39	21.70	1.13	147.40	9.31	36.66	36.43	4.63	641.84	0.71	11.196	0.136	15.86	5.53	83.84	2.24
2044 Jun	Mean	2089.59	2393.71	0.15	0.12	3.37	0.69	0.77	0.46	0.12	618.92	1.00	11.05	15.06	6.22	7.77	2.59	0.126	0.095	3.93	10.77	215.58	0.130	0.040	4.46	0.27	41.53	0.095	1.12	18.99	0.76	129.02	5.37	26.97	31.89	4.06	477.23	0.62	9.799	0.109	12.80	4.62	69.41	1.96
2044 Jul	Mean	158.87	181.99	0.02	0.01	0.53	0.06	0.10	0.05	0.01	47.06	0.19	0.84	3.52	0.56	1.01	0.20	0.010	0.007	0.30	0.82	16.39	0.027	0.009	0.34	0.02	8.23	0.007	0.12	1.44	0.14	9.81	1.44	3.94	2.42	0.31	67.71	0.05	0.745	0.012	1.37	0.43	6.42	0.15
2044 Aug	Mean	117.35	134.43	0.02	0.01	0.56	0.05	0.09	0.05	0.01	34.76	0.21	0.62	4.11	0.47	1.02	0.15	0.008	0.005	0.22	0.60	12.11	0.031	0.010	0.25	0.02	9.34	0.005	0.11	1.07	0.16	7.25	1.72	4.11	1.79	0.23	69.79	0.03	0.550	0.011	1.27	0.37	5.71	0.11
2044 Sep	Mean	94.07	107.76	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.86	0.21	0.50	4.04	0.40	0.95	0.12	0.007	0.004	0.18	0.48	9.71	0.030	0.010	0.20	0.01	9.11	0.004	0.10	0.85	0.16	5.81	1.69	3.88	1.44	0.18	65.50	0.03	0.441	0.010	1.14	0.32	5.20	0.09
2044 Oct	Mean	140.42	160.85	0.03	0.01	0.69	0.06	0.12	0.06	0.01	41.59	0.27	0.74	5.13	0.57	1.27	0.17	0.010	0.006	0.26	0.72	14.49	0.039	0.013	0.30	0.02	11.69	0.006	0.13	1.28	0.20	8.67	2.13	5.07	2.14	0.27	85.87	0.04	0.658	0.014	1.55	0.45	7.35	0.13
2044 Nov	Mean	96.29	110.30	0.02	0.01	0.63	0.04	0.10	0.05	0.01	28.52	0.25	0.51	4.99	0.44	1.14	0.12	0.008	0.004	0.18	0.50	9.93	0.037	0.012	0.21	0.01	11.23	0.004	0.11	0.88	0.19	5.95	2.08	4.63	1.47	0.19	77.88	0.03	0.452	0.012	1.31	0.36	6.26	0.09
2044 Dec	Mean	98.19	112.49	0.03	0.01	0.77	0.05	0.12	0.07	0.01	29.08	0.32	0.52	6.27	0.49	1.40	0.12	0.009	0.004	0.18	0.51	10.13	0.047	0.015	0.21	0.01	14.09	0.004	0.13	0.89	0.24	6.06	2.62	5.64	1.50	0.19	94.35	0.03	0.460	0.014	1.52	0.40	7.71	0.09
2045 Jan	Mean	96.95	111.07	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.72	0.36	0.51	7.10	0.52	1.56	0.12	0.010	0.004	0.18	0.50	10.00	0.053	0.017	0.21	0.01	15.93	0.004	0.14	0.88	0.27	5.99	2.96	6.27	1.48	0.19	104.59	0.03	0.455	0.016	1.65	0.43	8.64	0.09
2045 Feb	Mean	94.50	108.26	0.03	0.01	0.88	0.05	0.14	0.07	0.01	27.99	0.37	0.50	7.27	0.52	1.59	0.12	0.010	0.004	0.18	0.49	9.75	0.054	0.018	0.20	0.01	16.30	0.004	0.14	0.86	0.27	5.83	3.03	6.38	1.44	0.18	106.32	0.03	0.443	0.016	1.67	0.43	8.81	0.09
2045 Mar	Mean	91.34	104.63	0.03	0.01	0.85	0.05	0.13	0.07	0.01	27.05	0.36	0.48	7.02	0.50	1.53	0.11	0.010	0.004	0.17	0.47	9.42	0.052	0.017	0.19	0.01	15.75	0.004	0.14	0.83	0.26	5.64	2.92	6.16	1.39	0.18	102.71	0.03	0.428	0.016	1.61	0.42	8.51	0.09
2045 Apr	Mean	187.90	215.24	0.03	0.01	0.85	0.08	0.14	0.08	0.01	55.65	0.33	0.99	6.32	0.74	1.63	0.23	0.015	0.009	0.35	0.97	19.38	0.048	0.016	0.40	0.02	14.63	0.009	0.17	1.71	0.25	11.60	2.58	6.31	2.87	0.36	106.73	0.06	0.881	0.018	1.97	0.58	10.63	0.18
2045 May	Mean	2894.31	3315.56	0.24	0.18	5.39	0.97	1.17	0.70	0.16	857.27	1.74	15.31	27.79	8.86	12.19	3.58	0.186	0.132	5.45	14.92	298.60	0.232	0.071	6.17	0.38	73.30	0.132	1.64	26.30	1.30	178.70	10.23	42.63	44.17	5.62	746.12	0.86	13.573	0.165	18.84	6.63	106.34	2.71
2045 Jun	Mean	2376.64	2722.54	0.17	0.14	3.87	0.78	0.88	0.52	0.13	703.94	1.15	12.57	17.36	7.08	8.82	2.94	0.141	0.108	4.47	12.25	245.19	0.148	0.046	5.07	0.31	47.47	0.108	1.28	21.60	0.87	146.74	6.25	30.91	36.27	4.61	547.31	0.70	11.146	0.123	14.61	5.27	77.38	2.23
2045 Jul	Mean	159.62	182.85	0.02	0.01	0.51	0.06	0.09	0.05	0.01	47.28	0.18	0.84	3.36	0.56	0.98	0.20	0.010	0.007	0.30	0.82	16.47	0.026	0.009	0.34	0.02	7.90	0.007	0.12	1.45	0.14	9.86	1.37	3.82	2.44	0.31	65.70	0.05	0.749	0.012	1.35	0.43	6.40	0.15
2045 Aug	Mean	95.72	109.65	0.02	0.01	0.48	0.04	0.08	0.04	0.01	28.35	0.19	0.51	3.60	0.39	0.87	0.12	0.006	0.004	0.18	0.49	9.88	0.027	0.009	0.20	0.01	8.14	0.004	0.09	0.87	0.14	5.91	1.51	3.55	1.46	0.19	60.22	0.03	0.449	0.009	1.08	0.31	4.74	0.09
2045 Sep	Mean	112.18	128.51	0.02	0.01	0.62	0.05	0.10	0.05	0.01	33.23	0.24	0.59	4.72	0.48	1.12	0.14	0.008	0.005	0.21	0.58	11.57	0.035	0.012	0.24	0.01	10.67	0.005	0.12	1.02	0.18	6.93	1.97	4.55	1.71	0.22	76.87	0.03	0.526	0.012	1.34	0.38	6.16	0.11
2045 Oct	Mean	94.60	108.37	0.02	0.01	0.55	0.04	0.09	0.05	0.01	28.02	0.22	0.50	4.27	0.41	1.00	0.12	0.007	0.004	0.18	0.49	9.76	0.032	0.011	0.20	0.01	9.62	0.004	0.10	0.86	0.16	5.84	1.78	4.06	1.44	0.18	68.47	0.03	0.444	0.011	1.18	0.33	5.44	0.09
2045 Nov	Mean	140.27	160.68	0.03	0.01	0.74	0.06	0.12	0.07	0.01	41.55	0.30	0.74	5.72	0.59	1.40	0.17	0.012	0.006	0.26	0.72	14.47	0.043	0.014	0.30	0.02	13.08	0.006	0.14	1.27	0.22	8.66	2.35	5.50	2.14	0.27	92.62	0.04	0.658	0.015	1.64	0.47	8.65	0.13
2045 Dec	Mean	98.40	112.72	0.03	0.01	0.77	0.05	0.12	0.06	0.01	29.15	0.32	0.52	6.20	0.49	1.38	0.12	0.009	0.004	0.19	0.51	10.15	0.046	0.015	0.21	0.01	13.93	0.004	0.13	0.89	0.23	6.08	2.59	5.59	1.50	0.19	93.48	0.03	0.461	0.014	1.51	0.40	7.64	0.09
2046 Jan	Mean	97.23	111.39	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.80	0.36	0.51	7.01	0.52	1.54	0.12	0.010	0.004	0.18	0.50	10.03	0.052	0.017	0.21	0.01	15.74	0.004	0.14	0.88	0.26	6.00	2.92	6.20	1.48	0.19	103.53	0.03	0.456	0.016	1.64	0.43	8.54	0.09
2046 Feb	Mean	94.80	108.60	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.08	0.36	0.50																															

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2047 May	Mean	2087.63	2391.47	0.17	0.13	3.95	0.70	0.85	0.50	0.12	618.34	1.26	11.04	20.31	6.40	8.75	2.59	0.130	0.095	3.93	10.76	215.37	0.168	0.053	4.45	0.27	53.02	0.095	1.19	18.97	0.95	128.90	7.59	31.07	31.86	4.05	544.50	0.62	9.790	0.118	13.66	4.79	73.87	1.96
2047 Jun	Mean	2408.49	2759.03	0.17	0.15	3.79	0.79	0.88	0.53	0.13	713.38	1.14	12.74	16.75	7.14	8.95	2.98	0.150	0.110	4.53	12.42	248.48	0.146	0.044	5.14	0.32	47.03	0.110	1.28	21.89	0.85	148.71	5.82	30.48	36.76	4.68	538.93	0.71	11.295	0.127	14.62	5.30	82.93	2.26
2047 Jul	Mean	201.69	231.05	0.03	0.01	0.65	0.07	0.12	0.07	0.01	59.74	0.24	1.07	4.35	0.71	1.28	0.25	0.014	0.009	0.38	1.04	20.81	0.034	0.011	0.43	0.03	10.31	0.009	0.15	1.83	0.18	12.45	1.75	4.89	3.08	0.39	83.66	0.06	0.946	0.015	1.72	0.54	8.88	0.19
2047 Aug	Mean	95.89	109.85	0.02	0.01	0.48	0.04	0.08	0.04	0.01	28.40	0.18	0.51	3.55	0.39	0.86	0.12	0.006	0.004	0.18	0.49	9.89	0.027	0.009	0.20	0.01	8.03	0.004	0.09	0.87	0.14	5.92	1.49	3.51	1.46	0.19	59.57	0.03	0.450	0.009	1.07	0.31	4.69	0.09
2047 Sep	Mean	137.78	157.84	0.02	0.01	0.63	0.06	0.11	0.06	0.01	40.81	0.24	0.73	4.63	0.54	1.17	0.17	0.010	0.006	0.26	0.71	14.21	0.035	0.012	0.29	0.02	10.61	0.006	0.13	1.25	0.18	8.51	1.91	4.65	2.10	0.27	78.84	0.04	0.646	0.013	1.45	0.43	7.09	0.13
2047 Oct	Mean	94.21	107.92	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.90	0.21	0.50	4.02	0.40	0.95	0.12	0.007	0.004	0.18	0.49	9.72	0.030	0.010	0.20	0.01	9.07	0.004	0.10	0.86	0.16	5.82	1.68	3.86	1.44	0.18	65.29	0.03	0.442	0.010	1.14	0.32	5.16	0.09
2047 Nov	Mean	96.89	111.00	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.70	0.24	0.51	4.74	0.44	1.09	0.12	0.008	0.004	0.18	0.50	10.00	0.035	0.012	0.21	0.01	10.67	0.004	0.11	0.88	0.18	5.98	1.98	4.44	1.48	0.19	74.78	0.03	0.454	0.012	1.27	0.35	5.98	0.09
2047 Dec	Mean	98.80	113.18	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.26	0.31	0.52	6.01	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.19	0.045	0.015	0.21	0.01	13.51	0.005	0.13	0.90	0.23	6.10	2.51	5.44	1.51	0.19	91.14	0.03	0.463	0.014	1.49	0.40	7.42	0.09
2048 Jan	Mean	97.69	111.90	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.93	0.35	0.52	6.85	0.51	1.51	0.12	0.010	0.004	0.18	0.50	10.08	0.051	0.017	0.21	0.01	15.38	0.004	0.14	0.89	0.26	6.03	2.86	6.08	1.49	0.19	101.57	0.03	0.458	0.016	1.62	0.42	8.36	0.09
2048 Feb	Mean	95.25	109.11	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.21	0.36	0.50	7.04	0.51	1.54	0.12	0.010	0.004	0.18	0.49	9.83	0.052	0.017	0.20	0.01	15.80	0.004	0.14	0.87	0.26	5.88	2.93	6.21	1.45	0.18	103.56	0.03	0.447	0.016	1.63	0.42	8.56	0.09
2048 Mar	Mean	92.01	105.40	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.25	0.35	0.49	6.82	0.50	1.49	0.11	0.010	0.004	0.17	0.47	9.49	0.051	0.017	0.20	0.01	15.30	0.004	0.14	0.84	0.26	5.68	2.84	6.01	1.40	0.18	100.26	0.03	0.431	0.015	1.58	0.41	8.29	0.09
2048 Apr	Mean	109.18	125.07	0.03	0.01	0.72	0.05	0.12	0.06	0.01	32.34	0.29	0.58	5.70	0.50	1.31	0.14	0.009	0.005	0.21	0.56	11.26	0.043	0.014	0.23	0.01	12.84	0.005	0.13	0.99	0.22	6.74	2.38	5.28	1.67	0.21	88.71	0.03	0.512	0.014	1.49	0.41	7.26	0.10
2048 May	Mean	2344.26	2685.45	0.20	0.14	4.53	0.79	0.97	0.57	0.13	694.35	1.47	12.40	23.76	7.22	10.04	2.90	0.148	0.107	4.41	12.08	241.85	0.196	0.061	5.00	0.31	61.81	0.107	1.35	21.31	1.10	144.74	8.88	35.59	35.78	4.55	622.52	0.69	10.994	0.135	15.49	5.41	85.04	2.20
2048 Jun	Mean	2372.88	2718.23	0.17	0.14	3.78	0.78	0.87	0.52	0.13	702.83	1.12	12.55	16.66	7.05	8.73	2.94	0.143	0.108	4.47	12.23	244.80	0.144	0.044	5.06	0.31	46.16	0.108	1.27	21.57	0.84	146.51	5.91	30.28	36.21	4.61	536.30	0.70	11.128	0.123	14.47	5.23	78.29	2.23
2048 Jul	Mean	155.83	178.51	0.02	0.01	0.49	0.06	0.09	0.05	0.01	46.16	0.17	0.82	3.15	0.54	0.91	0.19	0.008	0.007	0.29	0.80	16.08	0.024	0.008	0.33	0.02	7.32	0.007	0.11	1.42	0.13	9.62	1.31	3.65	2.38	0.30	63.12	0.05	0.731	0.011	1.30	0.41	5.40	0.15
2048 Aug	Mean	95.90	109.86	0.02	0.01	0.47	0.04	0.08	0.04	0.01	28.40	0.18	0.51	3.52	0.39	0.85	0.12	0.006	0.004	0.18	0.49	9.89	0.026	0.009	0.20	0.01	7.96	0.004	0.09	0.87	0.14	5.92	1.47	3.49	1.46	0.19	59.20	0.03	0.450	0.009	1.06	0.31	4.64	0.09
2048 Sep	Mean	142.88	163.68	0.03	0.01	0.65	0.06	0.11	0.06	0.01	42.32	0.25	0.76	4.85	0.56	1.23	0.18	0.011	0.006	0.27	0.74	14.74	0.037	0.012	0.30	0.02	11.15	0.007	0.13	1.30	0.19	8.82	2.00	4.85	2.18	0.28	82.16	0.04	0.670	0.014	1.51	0.44	7.64	0.13
2048 Oct	Mean	106.55	122.06	0.02	0.01	0.57	0.04	0.09	0.05	0.01	31.56	0.22	0.56	4.32	0.45	1.03	0.13	0.008	0.005	0.20	0.55	10.99	0.032	0.011	0.23	0.01	9.77	0.005	0.11	0.97	0.17	6.58	1.81	4.19	1.63	0.21	70.95	0.03	0.500	0.011	1.25	0.36	5.67	0.10
2048 Nov	Mean	96.89	111.00	0.02	0.01	0.62	0.04	0.10	0.05	0.01	28.70	0.25	0.51	4.82	0.44	1.11	0.12	0.008	0.004	0.18	0.50	10.00	0.036	0.012	0.21	0.01	10.85	0.004	0.11	0.88	0.18	5.98	2.01	4.50	1.48	0.19	75.80	0.03	0.454	0.012	1.28	0.35	6.07	0.09
2048 Dec	Mean	98.81	113.19	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.27	0.31	0.52	6.06	0.49	1.36	0.12	0.009	0.004	0.19	0.51	10.19	0.045	0.015	0.21	0.01	13.61	0.005	0.13	0.90	0.23	6.10	2.53	5.48	1.51	0.19	91.75	0.03	0.463	0.014	1.49	0.40	7.47	0.09
2049 Jan	Mean	97.73	111.95	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.95	0.35	0.52	6.87	0.51	1.51	0.12	0.010	0.004	0.18	0.50	10.08	0.051	0.017	0.21	0.01	15.43	0.004	0.14	0.89	0.26	6.03	2.86	6.10	1.49	0.19	101.84	0.03	0.458	0.016	1.62	0.42	8.38	0.09
2049 Feb	Mean	95.28	109.14	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.22	0.36	0.50	7.04	0.51	1.54	0.12	0.010	0.004	0.18	0.49	9.83	0.053	0.017	0.20	0.01	15.80	0.004	0.14	0.87	0.26	5.88	2.93	6.21	1.45	0.18	103.61	0.03	0.447	0.016	1.64	0.42	8.56	0.09
2049 Mar	Mean	92.10	105.50	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.28	0.35	0.49	6.83	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.50	0.051	0.017	0.20	0.01	15.34	0.004	0.14	0.84	0.26	5.69	2.85	6.03	1.41	0.18	100.50	0.03	0.432	0.015	1.59	0.41	8.31	0.09
2049 Apr	Mean	145.54	166.72	0.03	0.01	0.78	0.06	0.13	0.07	0.01	43.11	0.31	0.77	5.99	0.61	1.47	0.18	0.013	0.007	0.27	0.75	15.02	0.045	0.015	0.31	0.02	13.74	0.007	0.15	1.32	0.23	8.99	2.45	5.74	2.22	0.28	96.51	0.04	0.683	0.016	1.71	0.49	9.35	0.14
2049 May	Mean	2551.00	2922.28	0.21	0.15	4.76	0.86	1.03	0.60	0.14	755.59	1.50	13.49	24.10	7.80	10.48	3.16	0.154	0.116	4.80	13.15	263.18	0.199	0.063	5.44	0.33	62.88	0.116	1.45	23.18	1.13	157.51	9.04	37.48	38.93	4.95	658.11	0.75	11.963	0.141	16.59	5.84	87.43	2.39
2049 Jun	Mean	2302.51	2637.63	0.16	0.14	3.66	0.76	0.84	0.50	0.13	681.99	1.09	12.18	16.19	6.84	8.52	2.85	0.140	0.105	4.33	11.87	237.54	0.140	0.043	4.91	0.30	45.01	0.105	1.23	20.93	0.82	142.17	5.71	29.36	35.14	4.47	519.60	0.68	10.798	0.120	14.03	5.08	77.14	2.16
2049 Jul	Mean	153.05	175.32	0.02	0.01	0.47	0.06	0.09	0.05																																			

Table A-1
Monthly WQ Report for Scenario A.1.a - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2050 Oct	Mean	93.81	107.47	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.79	0.21	0.50	4.19	0.41	0.98	0.12	0.007	0.004	0.18	0.48	9.68	0.031	0.010	0.20	0.01	9.45	0.004	0.10	0.85	0.16	5.79	1.75	3.99	1.43	0.18	67.39	0.03	0.440	0.010	1.16	0.33	5.35	0.09
2050 Nov	Mean	96.77	110.86	0.02	0.01	0.62	0.04	0.10	0.05	0.01	28.66	0.25	0.51	4.85	0.44	1.12	0.12	0.008	0.004	0.18	0.50	9.98	0.036	0.012	0.21	0.01	10.91	0.004	0.11	0.88	0.19	5.98	2.03	4.52	1.48	0.19	76.13	0.03	0.454	0.012	1.29	0.35	6.10	0.09
2050 Dec	Mean	98.77	113.15	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.26	0.31	0.52	6.05	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.19	0.045	0.015	0.21	0.01	13.58	0.005	0.13	0.90	0.23	6.10	2.52	5.47	1.51	0.19	91.57	0.03	0.463	0.014	1.49	0.40	7.46	0.09
2051 Jan	Mean	97.73	111.96	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.95	0.35	0.52	6.87	0.51	1.51	0.12	0.010	0.004	0.18	0.50	10.08	0.051	0.017	0.21	0.01	15.42	0.004	0.14	0.89	0.26	6.03	2.86	6.10	1.49	0.19	101.81	0.03	0.458	0.016	1.62	0.42	8.38	0.09
2051 Feb	Mean	95.31	109.18	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.23	0.36	0.50	7.05	0.51	1.54	0.12	0.010	0.004	0.18	0.49	9.83	0.053	0.017	0.20	0.01	15.82	0.004	0.14	0.87	0.26	5.88	2.94	6.22	1.45	0.19	103.73	0.03	0.447	0.016	1.64	0.42	8.57	0.09
2051 Mar	Mean	92.02	105.42	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.26	0.35	0.49	6.82	0.50	1.49	0.11	0.010	0.004	0.17	0.47	9.49	0.051	0.017	0.20	0.01	15.30	0.004	0.14	0.84	0.26	5.68	2.84	6.01	1.40	0.18	100.29	0.03	0.432	0.015	1.58	0.41	8.29	0.09
2051 Apr	Mean	124.52	142.64	0.03	0.01	0.79	0.06	0.13	0.07	0.01	36.88	0.32	0.66	6.26	0.56	1.47	0.15	0.012	0.006	0.23	0.64	12.85	0.047	0.015	0.27	0.02	14.25	0.006	0.14	1.13	0.24	7.69	2.58	5.80	1.90	0.24	97.19	0.04	0.584	0.016	1.65	0.45	8.98	0.12
2051 May	Mean	2301.90	2636.93	0.19	0.14	4.50	0.78	0.96	0.56	0.13	681.81	1.46	12.18	23.82	7.11	9.95	2.85	0.146	0.105	4.33	11.87	237.48	0.196	0.061	4.91	0.30	61.75	0.105	1.33	20.92	1.10	142.13	8.93	35.33	35.13	4.47	617.56	0.68	10.795	0.133	15.29	5.33	83.90	2.16
2051 Jun	Mean	1729.78	1981.53	0.12	0.10	2.78	0.57	0.64	0.38	0.10	512.35	0.82	9.15	12.29	5.14	6.38	2.14	0.103	0.079	3.26	8.92	178.46	0.106	0.033	3.69	0.23	33.89	0.079	0.93	15.72	0.62	106.80	4.39	22.21	26.40	3.36	393.37	0.51	8.112	0.089	10.57	3.82	56.64	1.62
2051 Jul	Mean	104.18	119.35	0.02	0.01	0.39	0.04	0.07	0.04	0.01	30.86	0.14	0.55	2.67	0.38	0.71	0.13	0.006	0.005	0.20	0.54	10.75	0.020	0.007	0.22	0.01	6.09	0.005	0.08	0.95	0.11	6.43	1.12	2.89	1.59	0.20	49.61	0.03	0.489	0.008	0.97	0.30	3.89	0.10
2051 Aug	Mean	119.32	136.68	0.02	0.01	0.55	0.05	0.09	0.05	0.01	35.34	0.21	0.63	3.98	0.47	0.99	0.15	0.008	0.005	0.22	0.62	12.31	0.030	0.010	0.25	0.02	9.03	0.005	0.11	1.08	0.16	7.37	1.66	4.02	1.82	0.23	68.46	0.04	0.560	0.011	1.26	0.37	5.49	0.11
2051 Sep	Mean	101.58	116.36	0.02	0.01	0.53	0.04	0.09	0.05	0.01	30.09	0.21	0.54	4.00	0.42	0.96	0.13	0.007	0.005	0.19	0.52	10.48	0.030	0.010	0.22	0.01	9.04	0.005	0.10	0.92	0.16	6.27	1.67	3.90	1.55	0.20	66.10	0.03	0.476	0.010	1.17	0.34	5.26	0.10
2051 Oct	Mean	93.87	107.53	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.80	0.22	0.50	4.19	0.41	0.98	0.12	0.007	0.004	0.18	0.48	9.68	0.031	0.010	0.20	0.01	9.46	0.004	0.10	0.85	0.16	5.80	1.75	4.00	1.43	0.18	67.45	0.03	0.440	0.010	1.16	0.33	5.35	0.09
2051 Nov	Mean	96.69	110.77	0.02	0.01	0.62	0.04	0.10	0.05	0.01	28.64	0.25	0.51	4.90	0.44	1.13	0.12	0.008	0.004	0.18	0.50	9.98	0.037	0.012	0.21	0.01	11.04	0.004	0.11	0.88	0.19	5.97	2.05	4.57	1.48	0.19	76.86	0.03	0.453	0.012	1.29	0.36	6.16	0.09
2051 Dec	Mean	98.65	113.00	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.22	0.31	0.52	6.08	0.49	1.36	0.12	0.009	0.004	0.19	0.51	10.18	0.045	0.015	0.21	0.01	13.67	0.005	0.13	0.90	0.23	6.09	2.54	5.50	1.51	0.19	92.04	0.03	0.463	0.014	1.50	0.40	7.50	0.09
2052 Jan	Mean	97.59	111.79	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.90	0.35	0.52	6.89	0.52	1.52	0.12	0.010	0.004	0.18	0.50	10.07	0.051	0.017	0.21	0.01	15.46	0.004	0.14	0.89	0.26	6.03	2.87	6.11	1.49	0.19	102.01	0.03	0.458	0.016	1.62	0.42	8.40	0.09
2052 Feb	Mean	95.16	109.01	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.18	0.36	0.50	7.06	0.51	1.55	0.12	0.010	0.004	0.18	0.49	9.82	0.053	0.017	0.20	0.01	15.85	0.004	0.14	0.86	0.26	5.88	2.94	6.23	1.45	0.18	103.85	0.03	0.446	0.016	1.64	0.42	8.58	0.09
2052 Mar	Mean	91.94	105.32	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.23	0.35	0.49	6.85	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.48	0.051	0.017	0.20	0.01	15.37	0.004	0.14	0.84	0.26	5.68	2.85	6.04	1.40	0.18	100.64	0.03	0.431	0.015	1.59	0.41	8.32	0.09
2052 Apr	Mean	148.53	170.15	0.03	0.01	0.80	0.06	0.13	0.07	0.01	43.99	0.32	0.79	6.15	0.63	1.48	0.18	0.011	0.007	0.28	0.77	15.32	0.046	0.015	0.32	0.02	13.98	0.007	0.15	1.35	0.24	9.17	2.55	5.93	2.27	0.29	100.02	0.04	0.697	0.016	1.76	0.50	8.59	0.14
2052 May	Mean	2279.99	2611.82	0.19	0.13	4.41	0.77	0.94	0.54	0.13	675.31	1.40	12.06	22.88	7.02	9.60	2.82	0.138	0.104	4.29	11.75	235.22	0.188	0.059	4.86	0.30	59.07	0.104	1.32	20.72	1.06	140.77	8.66	34.57	34.80	4.43	606.00	0.67	10.692	0.128	15.06	5.26	78.77	2.14
2052 Jun	Mean	1719.10	1969.30	0.12	0.10	2.79	0.57	0.64	0.38	0.10	509.18	0.83	9.09	12.51	5.12	6.40	2.13	0.103	0.078	3.24	8.86	177.35	0.107	0.033	3.67	0.23	34.36	0.078	0.92	15.62	0.63	106.14	4.48	22.30	26.24	3.34	394.58	0.51	8.062	0.089	10.56	3.81	56.75	1.61
2052 Jul	Mean	143.32	164.17	0.02	0.01	0.46	0.05	0.08	0.05	0.01	42.45	0.16	0.76	3.02	0.50	0.88	0.18	0.009	0.007	0.27	0.74	14.79	0.023	0.008	0.31	0.02	7.07	0.007	0.11	1.30	0.12	8.85	1.23	3.43	2.19	0.28	59.03	0.04	0.672	0.010	1.21	0.38	5.62	0.13
2052 Aug	Mean	111.54	127.77	0.02	0.01	0.52	0.05	0.09	0.05	0.01	33.04	0.20	0.59	3.86	0.44	0.96	0.14	0.007	0.005	0.21	0.57	11.51	0.029	0.010	0.24	0.01	8.77	0.005	0.10	1.01	0.15	6.89	1.61	3.87	1.70	0.22	65.78	0.03	0.523	0.010	1.20	0.35	5.33	0.10
2052 Sep	Mean	108.03	123.75	0.02	0.01	0.56	0.04	0.09	0.05	0.01	32.00	0.22	0.57	4.20	0.45	1.01	0.13	0.007	0.005	0.20	0.56	11.15	0.031	0.010	0.23	0.01	9.49	0.005	0.11	0.98	0.16	6.67	1.76	4.11	1.65	0.21	69.61	0.03	0.507	0.011	1.24	0.36	5.54	0.10
2052 Oct	Mean	94.05	107.74	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.86	0.21	0.50	4.18	0.41	0.98	0.12	0.007	0.004	0.18	0.48	9.70	0.031	0.010	0.20	0.01	9.43	0.004	0.10	0.85	0.16	5.81	1.75	3.99	1.44	0.18	67.34	0.03	0.441	0.010	1.16	0.33	5.34	0.09
2052 Nov	Mean	96.62	110.68	0.02	0.01	0.63	0.04	0.10	0.05	0.01	28.62	0.25	0.51	4.93	0.44	1.13	0.12	0.008	0.004	0.18	0.50	9.97	0.037	0.012	0.21	0.01	11.10	0.004	0.11	0.88	0.19	5.97	2.06	4.59	1.47	0.19	77.19	0.03	0.453	0.012	1.30	0.36	6.20	0.09
2052 Dec	Mean	98.52	112.86	0.03	0.01	0.76	0.05	0.12	0.06	0.01	29.18	0.31	0.52	6.12	0																													

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2020 Jan	Mean	112.56	128.94	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.34	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.03	0.91	1.72	0.22	17.63	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.54	132.37	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.23	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.60	11.92	0.000	0.001	0.25	0.02	0.19	0.005	0.05	1.05	0.01	7.14	0.03	0.99	1.76	0.22	18.33	0.03	0.542	0.003	0.60	0.23	0.74	0.11
2020 Mar	Mean	107.44	123.11	0.01	0.00	0.11	0.04	0.03	0.01	0.01	31.83	0.01	0.57	0.04	0.30	0.19	0.13	0.002	0.005	0.20	0.56	11.09	0.000	0.001	0.23	0.01	0.22	0.005	0.05	0.97	0.01	6.65	0.03	0.96	1.64	0.21	17.27	0.03	0.504	0.003	0.56	0.22	0.71	0.10
2020 Apr	Mean	100.42	115.07	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.75	0.01	0.53	0.04	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.37	0.000	0.001	0.21	0.01	0.22	0.005	0.05	0.91	0.01	6.22	0.03	0.90	1.53	0.19	16.15	0.03	0.471	0.003	0.52	0.20	0.71	0.09
2020 May	Mean	104.02	119.20	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.82	0.01	0.55	0.05	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.74	0.000	0.001	0.22	0.01	0.26	0.005	0.05	0.94	0.01	6.44	0.03	0.96	1.59	0.20	16.87	0.03	0.488	0.003	0.54	0.21	0.76	0.10
2020 Jun	Mean	105.57	120.99	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.28	0.01	0.56	0.07	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.90	0.000	0.001	0.23	0.01	0.32	0.005	0.05	0.95	0.01	6.55	0.03	1.06	1.61	0.20	17.51	0.03	0.495	0.003	0.56	0.21	0.76	0.10
2020 Jul	Mean	106.10	121.62	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.44	0.01	0.56	0.09	0.29	0.20	0.13	0.002	0.005	0.20	0.55	10.96	0.000	0.001	0.23	0.01	0.39	0.005	0.05	0.95	0.01	6.59	0.04	1.15	1.62	0.21	18.00	0.03	0.497	0.003	0.56	0.21	0.77	0.10
2020 Aug	Mean	106.35	121.93	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.52	0.01	0.57	0.10	0.29	0.20	0.13	0.002	0.005	0.20	0.55	10.99	0.000	0.001	0.23	0.01	0.42	0.005	0.05	0.95	0.01	6.62	0.04	1.19	1.63	0.21	18.24	0.03	0.498	0.003	0.57	0.22	0.77	0.10
2020 Sep	Mean	106.17	121.74	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.47	0.01	0.57	0.11	0.29	0.20	0.13	0.002	0.005	0.20	0.55	10.98	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.94	0.01	6.61	0.04	1.22	1.63	0.21	18.36	0.03	0.497	0.003	0.57	0.21	0.77	0.10
2020 Oct	Mean	106.30	121.91	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.51	0.01	0.57	0.12	0.30	0.20	0.13	0.002	0.005	0.20	0.55	11.00	0.000	0.001	0.23	0.01	0.48	0.005	0.05	0.94	0.02	6.63	0.05	1.27	1.63	0.21	18.63	0.03	0.498	0.003	0.57	0.22	0.78	0.10
2020 Nov	Mean	109.03	125.05	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.32	0.01	0.58	0.17	0.30	0.21	0.14	0.003	0.005	0.21	0.57	11.28	0.001	0.001	0.23	0.01	0.63	0.005	0.05	0.96	0.02	6.81	0.06	1.46	1.67	0.21	19.84	0.03	0.510	0.003	0.60	0.22	0.83	0.10
2020 Dec	Mean	114.29	131.13	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.89	0.02	0.61	0.29	0.32	0.24	0.14	0.003	0.005	0.22	0.60	11.83	0.001	0.001	0.24	0.02	1.00	0.005	0.05	1.00	0.02	7.16	0.08	1.93	1.75	0.22	22.64	0.03	0.535	0.003	0.65	0.23	0.93	0.11
2021 Jan	Mean	117.39	134.85	0.01	0.00	0.14	0.04	0.04	0.02	0.01	34.84	0.03	0.63	0.53	0.34	0.27	0.15	0.003	0.006	0.22	0.62	12.19	0.002	0.002	0.25	0.02	1.71	0.005	0.06	1.00	0.02	7.43	0.13	2.79	1.81	0.23	27.07	0.03	0.548	0.004	0.71	0.25	1.11	0.11
2021 Feb	Mean	114.09	131.19	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.89	0.03	0.62	0.73	0.33	0.29	0.14	0.003	0.006	0.22	0.61	11.87	0.003	0.003	0.24	0.02	2.33	0.005	0.06	0.95	0.03	7.29	0.17	3.49	1.77	0.22	29.98	0.03	0.532	0.004	0.74	0.24	1.23	0.11
2021 Mar	Mean	104.97	120.64	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.16	0.02	0.57	0.50	0.30	0.25	0.13	0.003	0.005	0.20	0.56	10.91	0.002	0.002	0.22	0.01	1.62	0.005	0.05	0.88	0.02	6.68	0.12	2.59	1.62	0.20	24.72	0.03	0.490	0.003	0.64	0.22	1.07	0.10
2021 Apr	Mean	99.32	113.99	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.46	0.01	0.53	0.20	0.28	0.21	0.12	0.003	0.005	0.19	0.52	10.29	0.001	0.001	0.21	0.01	0.73	0.005	0.05	0.86	0.02	6.24	0.06	1.45	1.53	0.19	18.73	0.03	0.464	0.003	0.55	0.20	0.97	0.09
2021 May	Mean	103.20	118.39	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.60	0.01	0.55	0.18	0.29	0.21	0.13	0.003	0.005	0.20	0.54	10.68	0.001	0.001	0.22	0.01	0.66	0.005	0.05	0.91	0.02	6.46	0.05	1.38	1.58	0.20	18.82	0.03	0.483	0.003	0.56	0.21	1.02	0.10
2021 Jun	Mean	105.31	120.83	0.01	0.00	0.12	0.03	0.03	0.01	0.01	31.23	0.02	0.56	0.27	0.30	0.22	0.13	0.003	0.005	0.20	0.55	10.90	0.001	0.001	0.22	0.01	0.94	0.005	0.05	0.92	0.02	6.60	0.07	1.76	1.62	0.20	20.81	0.03	0.492	0.003	0.60	0.22	0.97	0.10
2021 Jul	Mean	105.94	121.62	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.43	0.02	0.57	0.40	0.30	0.24	0.13	0.003	0.005	0.20	0.56	10.98	0.001	0.002	0.23	0.01	1.30	0.005	0.05	0.91	0.02	6.67	0.10	2.21	1.63	0.20	22.98	0.03	0.495	0.003	0.62	0.22	0.99	0.10
2021 Aug	Mean	106.14	121.89	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.49	0.02	0.57	0.47	0.30	0.25	0.13	0.003	0.005	0.20	0.56	11.01	0.002	0.002	0.23	0.01	1.52	0.005	0.05	0.91	0.02	6.71	0.11	2.48	1.64	0.20	24.24	0.03	0.496	0.003	0.64	0.22	1.03	0.10
2021 Sep	Mean	105.83	121.56	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.41	0.03	0.57	0.53	0.30	0.25	0.13	0.003	0.005	0.20	0.56	10.99	0.002	0.002	0.23	0.01	1.71	0.005	0.05	0.90	0.02	6.70	0.13	2.70	1.63	0.20	25.23	0.03	0.494	0.003	0.65	0.22	1.06	0.10
2021 Oct	Mean	105.84	121.59	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.41	0.03	0.57	0.65	0.31	0.26	0.13	0.003	0.005	0.20	0.56	10.99	0.002	0.002	0.23	0.01	2.06	0.005	0.05	0.90	0.02	6.71	0.15	3.11	1.63	0.20	27.07	0.03	0.494	0.003	0.67	0.22	1.12	0.10
2021 Nov	Mean	108.27	124.37	0.01	0.00	0.15	0.04	0.04	0.02	0.01	32.13	0.04	0.58	0.88	0.32	0.29	0.14	0.003	0.005	0.21	0.58	11.24	0.003	0.003	0.23	0.01	2.77	0.005	0.05	0.92	0.03	6.86	0.19	3.95	1.67	0.21	31.12	0.03	0.505	0.004	0.73	0.23	1.27	0.10
2021 Dec	Mean	113.22	130.11	0.01	0.00	0.19	0.04	0.04	0.03	0.01	33.61	0.06	0.61	1.42	0.34	0.35	0.14	0.004	0.005	0.22	0.60	11.77	0.005	0.004	0.24	0.02	4.39	0.005	0.06	0.95	0.04	7.20	0.30	5.88	1.75	0.22	40.36	0.03	0.528	0.004	0.86	0.25	1.59	0.11
2022 Jan	Mean	114.89	132.24	0.01	0.00	0.23	0.04	0.05	0.03	0.01	34.15	0.09	0.63	1.86	0.36	0.45	0.15	0.004	0.006	0.22	0.62	11.98	0.008	0.006	0.25	0.02	5.72	0.005	0.06	0.93	0.05	7.41	0.47	7.45	1.79	0.22	47.88	0.03	0.534	0.005	0.96	0.27	2.10	0.11
2022 Feb	Mean	110.79	127.69	0.01	0.00	0.26	0.04	0.05	0.03	0.01	32.96	0.11	0.61	2.04	0.36	0.51	0.14	0.005	0.006	0.21	0.61	11.59	0.010	0.008	0.24	0.02	6.24	0.005	0.06	0.87	0.06	7.23	0.59	8.04	1.73	0.21	50.20	0.03	0.514	0.006	0.97	0.27	2.45	0.10
2022 Mar	Mean	102.45	117.98	0.01	0.00	0.22	0.04	0.05	0.03	0.01	30.46	0.09	0.56	1.56	0.33	0.43	0.13	0.004	0.005	0.20	0.56	10.70																						

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jul	Mean	101.65	116.97	0.01	0.00	0.28	0.04	0.05	0.04	0.01	30.21	0.13	0.55	2.67	0.34	0.54	0.13	0.005	0.005	0.19	0.55	10.60	0.012	0.010	0.22	0.01	8.13	0.005	0.05	0.83	0.07	6.54	0.70	10.11	1.58	0.20	57.97	0.03	0.473	0.006	1.04	0.26	2.78	0.09
2023 Aug	Mean	101.27	116.60	0.01	0.00	0.31	0.04	0.06	0.04	0.01	30.11	0.15	0.55	3.13	0.35	0.59	0.13	0.005	0.005	0.19	0.55	10.57	0.015	0.012	0.22	0.01	9.53	0.005	0.05	0.81	0.08	6.55	0.82	11.74	1.58	0.19	65.29	0.03	0.471	0.006	1.13	0.27	3.08	0.09
2023 Sep	Mean	100.72	116.00	0.01	0.01	0.33	0.04	0.06	0.04	0.01	29.95	0.16	0.55	3.39	0.36	0.63	0.13	0.005	0.005	0.19	0.55	10.52	0.016	0.013	0.22	0.01	10.31	0.005	0.05	0.80	0.09	6.53	0.89	12.66	1.57	0.19	69.34	0.03	0.468	0.007	1.17	0.27	3.23	0.09
2023 Oct	Mean	100.57	115.85	0.01	0.01	0.34	0.04	0.06	0.04	0.01	29.91	0.17	0.55	3.60	0.36	0.65	0.13	0.005	0.005	0.19	0.55	10.51	0.017	0.013	0.21	0.01	10.93	0.005	0.05	0.80	0.09	6.54	0.94	13.39	1.57	0.19	72.62	0.03	0.467	0.007	1.21	0.28	3.36	0.09
2023 Nov	Mean	102.65	118.25	0.01	0.01	0.35	0.04	0.06	0.05	0.01	30.53	0.18	0.56	3.78	0.37	0.68	0.13	0.005	0.005	0.20	0.56	10.73	0.017	0.014	0.22	0.01	11.47	0.005	0.05	0.81	0.10	6.67	0.98	14.02	1.60	0.20	75.70	0.03	0.477	0.007	1.26	0.29	3.53	0.10
2023 Dec	Mean	107.15	123.49	0.02	0.01	0.41	0.04	0.07	0.05	0.01	31.88	0.22	0.59	4.52	0.40	0.78	0.14	0.006	0.005	0.21	0.59	11.21	0.021	0.017	0.23	0.02	13.71	0.005	0.06	0.84	0.11	6.99	1.18	16.67	1.67	0.20	88.13	0.03	0.497	0.008	1.42	0.31	4.08	0.10
2024 Jan	Mean	107.53	124.16	0.02	0.01	0.49	0.05	0.08	0.07	0.01	32.03	0.27	0.60	6.30	0.43	0.94	0.14	0.007	0.006	0.21	0.60	11.30	0.027	0.021	0.23	0.02	19.08	0.005	0.20	0.80	0.14	7.14	1.49	22.94	1.69	0.20	116.41	0.03	0.498	0.010	1.77	0.34	4.96	0.10
2024 Feb	Mean	100.62	116.36	0.02	0.01	0.50	0.04	0.08	0.08	0.01	30.01	0.28	0.57	7.15	0.42	0.97	0.13	0.007	0.005	0.20	0.57	10.61	0.028	0.022	0.22	0.02	21.61	0.005	0.35	0.71	0.15	6.77	1.56	25.84	1.59	0.19	128.63	0.03	0.464	0.010	1.90	0.33	5.14	0.09
2024 Mar	Mean	97.27	112.22	0.01	0.01	0.36	0.04	0.06	0.05	0.01	28.96	0.19	0.54	4.81	0.36	0.71	0.13	0.006	0.005	0.19	0.54	10.20	0.019	0.015	0.21	0.01	14.60	0.004	0.27	0.74	0.10	6.41	1.03	17.57	1.52	0.19	91.03	0.03	0.451	0.007	1.43	0.28	3.86	0.09
2024 Apr	Mean	93.18	107.24	0.01	0.00	0.22	0.03	0.04	0.03	0.01	27.69	0.10	0.51	2.41	0.31	0.46	0.12	0.005	0.005	0.18	0.50	9.72	0.010	0.007	0.20	0.01	7.41	0.004	0.15	0.76	0.06	6.00	0.52	8.98	1.45	0.18	51.94	0.03	0.434	0.005	0.94	0.23	2.88	0.09
2024 May	Mean	96.18	110.63	0.01	0.00	0.20	0.03	0.04	0.03	0.01	28.57	0.09	0.52	1.99	0.31	0.43	0.12	0.005	0.005	0.18	0.52	10.02	0.008	0.006	0.21	0.01	6.15	0.004	0.13	0.79	0.05	6.17	0.43	7.50	1.49	0.18	45.66	0.03	0.448	0.005	0.87	0.23	2.75	0.09
2024 Jun	Mean	100.08	115.15	0.01	0.00	0.26	0.04	0.05	0.04	0.01	29.74	0.12	0.55	2.99	0.33	0.52	0.13	0.005	0.005	0.19	0.54	10.43	0.012	0.009	0.21	0.01	9.14	0.005	0.18	0.82	0.07	6.44	0.65	11.15	1.55	0.19	62.43	0.03	0.466	0.006	1.09	0.25	2.94	0.09
2024 Jul	Mean	100.02	115.22	0.01	0.01	0.33	0.04	0.06	0.05	0.01	29.74	0.17	0.55	4.26	0.36	0.65	0.13	0.005	0.005	0.19	0.55	10.45	0.016	0.013	0.21	0.01	12.95	0.005	0.24	0.79	0.09	6.50	0.92	15.67	1.56	0.19	82.69	0.03	0.465	0.007	1.33	0.28	3.48	0.09
2024 Aug	Mean	99.33	114.52	0.01	0.01	0.38	0.04	0.07	0.06	0.01	29.56	0.20	0.55	5.02	0.37	0.73	0.13	0.006	0.005	0.19	0.55	10.40	0.019	0.015	0.21	0.01	15.22	0.004	0.28	0.77	0.11	6.51	1.08	18.33	1.55	0.19	94.59	0.03	0.461	0.008	1.48	0.29	3.88	0.09
2024 Sep	Mean	98.57	113.68	0.02	0.01	0.39	0.04	0.07	0.06	0.01	29.34	0.21	0.55	5.37	0.38	0.76	0.13	0.006	0.005	0.19	0.55	10.33	0.021	0.016	0.21	0.01	16.28	0.004	0.29	0.75	0.11	6.48	1.16	19.58	1.54	0.19	100.10	0.03	0.457	0.008	1.54	0.29	4.03	0.09
2024 Oct	Mean	98.23	113.32	0.02	0.01	0.41	0.04	0.07	0.06	0.01	29.24	0.22	0.55	5.59	0.38	0.78	0.13	0.006	0.005	0.19	0.55	10.30	0.021	0.017	0.21	0.01	16.91	0.004	0.30	0.75	0.12	6.47	1.20	20.32	1.54	0.19	103.37	0.03	0.455	0.008	1.58	0.30	4.14	0.09
2024 Nov	Mean	100.09	115.44	0.02	0.01	0.42	0.04	0.07	0.06	0.01	29.79	0.23	0.56	5.80	0.39	0.81	0.13	0.006	0.005	0.19	0.55	10.49	0.022	0.018	0.21	0.01	17.56	0.005	0.31	0.77	0.12	6.58	1.25	21.08	1.57	0.19	106.97	0.03	0.464	0.008	1.63	0.30	4.31	0.09
2024 Dec	Mean	102.17	117.95	0.02	0.01	0.49	0.04	0.08	0.07	0.01	30.43	0.28	0.57	7.06	0.42	0.94	0.13	0.007	0.005	0.20	0.57	10.73	0.027	0.021	0.22	0.02	21.36	0.005	0.37	0.76	0.14	6.77	1.51	25.53	1.61	0.19	127.20	0.03	0.473	0.010	1.88	0.33	5.04	0.09
2025 Jan	Mean	104.62	120.49	0.02	0.01	0.46	0.04	0.08	0.06	0.01	31.11	0.23	0.57	5.77	0.41	0.86	0.13	0.006	0.005	0.20	0.57	10.93	0.024	0.016	0.22	0.01	16.78	0.005	0.74	0.83	0.13	6.79	1.37	18.63	1.63	0.20	104.48	0.03	0.486	0.009	1.62	0.32	4.52	0.10
2025 Feb	Mean	105.00	120.85	0.02	0.01	0.44	0.04	0.08	0.06	0.01	31.21	0.21	0.57	5.35	0.41	0.83	0.13	0.006	0.005	0.20	0.57	10.95	0.024	0.015	0.22	0.01	15.29	0.005	0.85	0.85	0.13	6.77	1.33	16.38	1.63	0.20	97.05	0.03	0.488	0.009	1.53	0.32	4.36	0.10
2025 Mar	Mean	102.67	118.14	0.02	0.01	0.42	0.04	0.07	0.06	0.01	30.51	0.20	0.56	4.93	0.39	0.79	0.13	0.006	0.005	0.20	0.56	10.70	0.022	0.014	0.22	0.01	14.00	0.005	0.83	0.84	0.12	6.61	1.24	14.82	1.59	0.20	89.96	0.03	0.478	0.008	1.44	0.31	4.10	0.10
2025 Apr	Mean	239.07	274.57	0.02	0.01	0.58	0.08	0.11	0.07	0.01	70.94	0.22	1.29	5.27	0.78	1.10	0.30	0.010	0.011	0.45	1.27	24.81	0.024	0.015	0.51	0.03	15.12	0.011	0.95	2.04	0.14	15.12	1.35	16.55	3.68	0.46	115.53	0.07	1.116	0.013	2.20	0.59	5.99	0.22
2025 May	Mean	3181.16	3651.63	0.20	0.12	4.51	1.04	1.09	0.60	0.18	943.63	1.15	17.07	22.24	9.28	9.34	3.99	0.123	0.151	6.04	16.77	329.73	0.115	0.070	6.79	0.43	68.02	0.145	4.84	27.54	0.88	200.21	5.71	83.78	48.93	6.15	812.34	0.95	14.867	0.123	20.33	6.83	58.97	2.97
2025 Jun	Mean	2021.08	2319.16	0.12	0.07	2.67	0.65	0.66	0.35	0.11	599.36	0.60	10.82	10.98	5.82	5.44	2.53	0.073	0.095	3.83	10.61	209.32	0.058	0.037	4.31	0.27	34.13	0.092	2.57	17.65	0.49	126.78	2.89	44.52	31.04	3.91	469.82	0.60	9.451	0.073	12.34	4.28	33.28	1.89
2025 Jul	Mean	122.20	140.23	0.01	0.00	0.26	0.04	0.05	0.03	0.01	36.24	0.09	0.65	2.21	0.38	0.49	0.15	0.005	0.006	0.23	0.64	12.66	0.010	0.006	0.26	0.02	6.40	0.006	0.42	1.07	0.06	7.67	0.56	7.29	1.88	0.24	52.13	0.04	0.571	0.006	1.04	0.29	2.44	0.11
2025 Aug	Mean	132.03	151.56	0.01	0.01	0.33	0.05	0.06	0.04	0.01	39.17	0.13	0.71	3.12	0.43	0.61	0.17	0.005	0.006	0.25	0.70	13.69	0.014	0.009	0.28	0.02	8.99	0.006	0.58	1.14	0.08	8.31	0.78	10.02	2.03	0.26	67.34	0.04	0.617	0.007	1.25	0.33	3.10	0.12
2025 Sep	Mean	145.10	166.68	0.02	0.01	0.38	0.05	0.07	0.05	0.01	43.06	0.15	0.78																															

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2027 Jan	Mean	104.60	120.64	0.02	0.01	0.58	0.05	0.10	0.08	0.01	31.13	0.32	0.58	7.25	0.45	1.10	0.13	0.008	0.005	0.20	0.58	10.96	0.033	0.023	0.22	0.02	20.92	0.005	2.05	0.80	0.17	6.87	1.86	22.72	1.64	0.20	126.66	0.03	0.485	0.011	1.90	0.36	5.86	0.10
2027 Feb	Mean	102.53	118.31	0.02	0.01	0.59	0.05	0.10	0.07	0.01	30.53	0.31	0.57	6.92	0.45	1.11	0.13	0.008	0.005	0.20	0.57	10.76	0.034	0.022	0.22	0.02	19.88	0.005	2.04	0.77	0.18	6.77	1.89	21.44	1.61	0.20	121.10	0.03	0.475	0.011	1.82	0.36	5.95	0.09
2027 Mar	Mean	139.59	161.05	0.02	0.01	0.63	0.06	0.11	0.08	0.01	41.56	0.32	0.78	6.89	0.56	1.24	0.18	0.010	0.007	0.27	0.78	14.64	0.035	0.023	0.30	0.02	19.86	0.006	2.06	1.06	0.18	9.20	1.92	21.42	2.19	0.27	126.13	0.04	0.647	0.013	2.01	0.44	6.97	0.13
2027 Apr	Mean	134.67	155.28	0.02	0.01	0.52	0.05	0.09	0.06	0.01	40.08	0.25	0.75	5.38	0.51	1.03	0.17	0.009	0.007	0.26	0.74	14.10	0.028	0.018	0.29	0.02	15.57	0.006	1.63	1.04	0.15	8.83	1.51	16.86	2.11	0.26	102.31	0.04	0.625	0.011	1.70	0.40	6.00	0.12
2027 May	Mean	2204.44	2537.13	0.15	0.11	3.41	0.75	0.80	0.46	0.12	655.15	1.05	12.05	18.27	6.60	7.86	2.81	0.109	0.110	4.22	11.95	229.88	0.109	0.064	4.71	0.31	56.74	0.100	5.82	17.87	0.74	142.13	5.04	66.83	34.24	4.23	608.51	0.66	10.257	0.098	14.73	4.88	56.02	2.05
2027 Jun	Mean	2685.02	3090.33	0.17	0.13	3.83	0.90	0.93	0.53	0.15	798.00	1.09	14.68	17.88	7.94	9.06	3.42	0.133	0.134	5.15	14.55	280.01	0.111	0.064	5.73	0.38	56.83	0.122	5.77	21.75	0.80	173.15	4.87	68.23	41.71	5.15	673.92	0.80	12.492	0.116	17.12	5.84	66.73	2.50
2027 Jul	Mean	113.85	130.81	0.01	0.01	0.32	0.04	0.06	0.04	0.01	33.79	0.13	0.62	2.81	0.38	0.59	0.14	0.005	0.006	0.22	0.61	11.83	0.014	0.010	0.24	0.02	8.18	0.005	0.89	0.96	0.08	7.23	0.80	9.29	1.76	0.22	60.39	0.03	0.531	0.007	1.11	0.29	3.08	0.11
2027 Aug	Mean	135.17	155.57	0.02	0.01	0.43	0.05	0.08	0.05	0.01	40.17	0.19	0.74	4.07	0.48	0.83	0.17	0.007	0.007	0.26	0.73	14.09	0.021	0.014	0.29	0.02	11.84	0.006	1.27	1.10	0.12	8.71	1.14	13.16	2.10	0.26	82.64	0.04	0.629	0.009	1.46	0.36	4.68	0.13
2027 Sep	Mean	98.95	113.85	0.02	0.01	0.38	0.04	0.07	0.05	0.01	29.40	0.18	0.54	3.95	0.37	0.72	0.13	0.006	0.005	0.19	0.53	10.31	0.020	0.013	0.21	0.01	11.41	0.004	1.23	0.81	0.11	6.36	1.11	12.61	1.54	0.19	75.42	0.03	0.461	0.008	1.25	0.29	3.75	0.09
2027 Oct	Mean	108.56	124.92	0.02	0.01	0.42	0.04	0.07	0.05	0.01	32.26	0.20	0.59	4.37	0.41	0.80	0.14	0.006	0.005	0.21	0.59	11.32	0.022	0.015	0.23	0.02	12.62	0.005	1.36	0.88	0.12	6.99	1.23	13.92	1.69	0.21	83.25	0.03	0.505	0.008	1.38	0.32	4.20	0.10
2027 Nov	Mean	102.13	117.59	0.02	0.01	0.45	0.04	0.08	0.05	0.01	30.36	0.22	0.56	4.85	0.40	0.85	0.13	0.006	0.005	0.20	0.56	10.66	0.024	0.016	0.22	0.01	14.00	0.005	1.50	0.82	0.13	6.61	1.37	15.35	1.59	0.20	89.70	0.03	0.475	0.009	1.43	0.32	4.47	0.09
2027 Dec	Mean	104.53	120.50	0.02	0.01	0.55	0.05	0.09	0.07	0.01	31.10	0.28	0.58	6.21	0.44	1.04	0.13	0.008	0.005	0.20	0.58	10.94	0.031	0.021	0.22	0.02	17.90	0.005	1.92	0.81	0.16	6.84	1.74	19.47	1.63	0.20	110.78	0.03	0.485	0.011	1.70	0.35	5.54	0.10
2028 Jan	Mean	104.38	120.46	0.02	0.01	0.61	0.05	0.10	0.08	0.01	31.08	0.32	0.58	7.24	0.46	1.15	0.14	0.008	0.005	0.20	0.58	10.95	0.035	0.023	0.22	0.02	20.92	0.005	2.34	0.79	0.18	6.90	1.96	22.84	1.64	0.20	126.70	0.03	0.483	0.012	1.90	0.37	6.17	0.10
2028 Feb	Mean	102.56	118.43	0.02	0.01	0.61	0.05	0.10	0.08	0.01	30.55	0.33	0.57	7.56	0.46	1.16	0.13	0.008	0.005	0.20	0.57	10.77	0.035	0.024	0.22	0.02	21.95	0.005	2.56	0.76	0.18	6.81	1.98	24.12	1.61	0.20	131.74	0.03	0.475	0.012	1.95	0.37	6.23	0.09
2028 Mar	Mean	99.44	114.83	0.02	0.01	0.59	0.05	0.10	0.08	0.01	29.63	0.31	0.56	7.35	0.45	1.12	0.13	0.008	0.005	0.19	0.56	10.45	0.034	0.023	0.21	0.01	21.35	0.004	2.52	0.74	0.18	6.61	1.91	23.53	1.56	0.19	128.11	0.03	0.460	0.011	1.90	0.36	6.00	0.09
2028 Apr	Mean	120.63	139.12	0.02	0.01	0.52	0.05	0.09	0.07	0.01	35.91	0.26	0.67	6.02	0.47	1.02	0.16	0.009	0.006	0.23	0.67	12.64	0.028	0.019	0.26	0.02	17.60	0.005	2.08	0.93	0.15	7.92	1.55	19.46	1.89	0.23	110.53	0.04	0.559	0.011	1.75	0.37	5.89	0.11
2028 May	Mean	1982.33	2283.69	0.14	0.13	3.13	0.68	0.73	0.48	0.11	589.55	1.11	10.90	19.97	6.00	8.11	2.54	0.129	0.101	3.81	10.85	207.17	0.119	0.063	4.23	0.28	63.36	0.090	6.60	15.66	0.73	128.92	4.77	69.44	30.90	3.80	587.33	0.60	9.208	0.103	13.80	4.44	69.79	1.84
2028 Jun	Mean	2078.87	2395.48	0.14	0.14	3.09	0.71	0.74	0.49	0.11	618.37	1.06	11.45	18.15	6.24	8.30	2.67	0.137	0.106	4.00	11.41	217.37	0.113	0.057	4.44	0.30	58.59	0.094	5.90	16.32	0.70	135.49	4.25	63.67	32.44	3.98	571.95	0.63	9.652	0.107	13.95	4.60	73.93	1.93
2028 Jul	Mean	100.88	115.96	0.01	0.00	0.31	0.04	0.06	0.04	0.01	29.95	0.14	0.55	3.25	0.35	0.59	0.13	0.005	0.005	0.19	0.54	10.49	0.015	0.010	0.22	0.01	9.56	0.005	1.16	0.84	0.08	6.43	0.84	10.98	1.56	0.19	65.47	0.03	0.470	0.006	1.13	0.27	3.10	0.09
2028 Aug	Mean	99.11	114.04	0.02	0.01	0.39	0.04	0.07	0.05	0.01	29.45	0.19	0.54	4.38	0.37	0.72	0.13	0.006	0.005	0.19	0.54	10.33	0.020	0.014	0.21	0.01	12.83	0.005	1.56	0.81	0.11	6.37	1.12	14.55	1.54	0.19	82.56	0.03	0.461	0.008	1.33	0.29	3.81	0.09
2028 Sep	Mean	98.91	113.84	0.02	0.01	0.41	0.04	0.07	0.05	0.01	29.40	0.20	0.54	4.72	0.38	0.77	0.13	0.006	0.005	0.19	0.54	10.31	0.021	0.015	0.21	0.01	13.83	0.004	1.68	0.80	0.12	6.38	1.20	15.63	1.54	0.19	87.85	0.03	0.460	0.008	1.40	0.30	4.05	0.09
2028 Oct	Mean	123.18	141.78	0.02	0.01	0.45	0.05	0.08	0.06	0.01	36.61	0.22	0.67	5.08	0.46	0.87	0.16	0.007	0.006	0.24	0.67	12.85	0.023	0.016	0.26	0.02	14.90	0.006	1.80	1.00	0.13	7.95	1.30	16.84	1.91	0.24	96.89	0.04	0.573	0.009	1.59	0.35	4.77	0.11
2028 Nov	Mean	101.70	117.14	0.02	0.01	0.47	0.04	0.08	0.06	0.01	30.24	0.24	0.56	5.58	0.41	0.88	0.13	0.007	0.005	0.20	0.56	10.63	0.025	0.018	0.22	0.01	16.32	0.005	1.97	0.81	0.14	6.61	1.43	18.30	1.58	0.19	101.51	0.03	0.472	0.009	1.57	0.32	4.66	0.09
2028 Dec	Mean	104.78	120.84	0.02	0.01	0.56	0.05	0.09	0.07	0.01	31.19	0.30	0.58	6.97	0.45	1.06	0.14	0.008	0.005	0.20	0.58	10.98	0.032	0.022	0.22	0.02	20.32	0.005	2.44	0.80	0.17	6.88	1.78	22.63	1.64	0.20	123.20	0.03	0.486	0.011	1.85	0.36	5.66	0.10
2029 Jan	Mean	104.33	120.44	0.02	0.01	0.63	0.05	0.10	0.08	0.01	31.07	0.34	0.58	8.15	0.47	1.19	0.14	0.008	0.006	0.20	0.58	10.95	0.036	0.025	0.22	0.02	23.71	0.005	2.86	0.78	0.19	6.91	2.04	26.18	1.64	0.20	141.08	0.03	0.483	0.012	2.07	0.38	6.39	0.10
2029 Feb	Mean	101.99	117.78	0.02	0.01	0.65	0.05	0.10	0.09	0.01	30.39	0.35	0.57	8.61	0.47	1.23	0.13	0.009	0.005	0.20	0.57	10.72	0.038	0.025	0.22	0.02	24.99	0.005	3.02	0.75	0.20	6.78	2.11	27.44	1.60	0.19	147.54	0.03	0.472	0.012	2.14	0.38	6.58	0.09
2029 Mar	Mean	98.65	113.92	0.02	0.01	0.63	0.05	0.10																																				

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2030 Jul	Mean	180.32	207.45	0.02	0.01	0.50	0.07	0.10	0.07	0.01	53.58	0.22	0.98	5.63	0.61	1.01	0.23	0.011	0.009	0.34	0.97	18.79	0.024	0.016	0.39	0.03	16.75	0.008	2.05	1.48	0.13	11.58	1.24	18.95	2.80	0.35	113.21	0.05	0.840	0.012	1.98	0.46	6.44	0.17
2030 Aug	Mean	98.59	113.45	0.02	0.01	0.41	0.04	0.07	0.06	0.01	29.30	0.20	0.54	5.43	0.38	0.77	0.13	0.006	0.005	0.19	0.53	10.28	0.022	0.015	0.21	0.01	15.95	0.004	1.99	0.80	0.12	6.34	1.21	18.05	1.53	0.19	98.66	0.03	0.459	0.008	1.53	0.30	4.07	0.09
2030 Sep	Mean	102.30	117.75	0.02	0.01	0.44	0.04	0.08	0.06	0.01	30.41	0.22	0.56	5.94	0.40	0.83	0.13	0.006	0.005	0.20	0.56	10.67	0.024	0.016	0.22	0.01	17.45	0.005	2.17	0.83	0.13	6.60	1.32	19.68	1.59	0.20	107.10	0.03	0.476	0.009	1.64	0.31	4.45	0.10
2030 Oct	Mean	97.68	112.46	0.02	0.01	0.44	0.04	0.08	0.06	0.01	29.04	0.22	0.54	5.95	0.39	0.82	0.12	0.006	0.005	0.19	0.53	10.19	0.024	0.016	0.21	0.01	17.44	0.004	2.17	0.78	0.13	6.32	1.33	19.62	1.52	0.19	106.51	0.03	0.454	0.009	1.62	0.30	4.36	0.09
2030 Nov	Mean	101.13	116.51	0.02	0.01	0.50	0.04	0.08	0.07	0.01	30.08	0.26	0.56	6.86	0.42	0.93	0.13	0.007	0.005	0.19	0.55	10.57	0.027	0.019	0.22	0.01	20.09	0.005	2.49	0.80	0.15	6.58	1.54	22.50	1.58	0.19	121.05	0.03	0.470	0.010	1.81	0.33	4.95	0.09
2030 Dec	Mean	104.07	120.04	0.02	0.01	0.60	0.05	0.10	0.09	0.01	30.98	0.32	0.58	8.58	0.46	1.13	0.13	0.008	0.005	0.20	0.58	10.91	0.034	0.023	0.22	0.02	25.08	0.005	3.10	0.80	0.18	6.84	1.92	27.94	1.63	0.20	147.83	0.03	0.482	0.011	2.15	0.37	6.04	0.10
2031 Jan	Mean	103.63	119.67	0.03	0.01	0.67	0.05	0.11	0.10	0.01	30.87	0.36	0.58	10.12	0.48	1.26	0.13	0.009	0.006	0.20	0.58	10.89	0.039	0.026	0.22	0.02	29.61	0.005	3.58	0.77	0.20	6.88	2.18	32.94	1.63	0.20	171.58	0.03	0.479	0.013	2.44	0.39	6.78	0.10
2031 Feb	Mean	101.30	117.05	0.03	0.01	0.68	0.05	0.11	0.11	0.01	30.19	0.37	0.57	10.82	0.48	1.29	0.13	0.009	0.005	0.20	0.57	10.66	0.040	0.027	0.22	0.02	31.67	0.005	3.75	0.74	0.21	6.77	2.25	35.27	1.60	0.19	182.03	0.03	0.468	0.013	2.56	0.39	6.97	0.09
2031 Mar	Mean	98.04	113.30	0.02	0.01	0.66	0.05	0.11	0.11	0.01	29.22	0.36	0.55	10.56	0.47	1.25	0.13	0.009	0.005	0.19	0.55	10.32	0.039	0.026	0.21	0.01	30.91	0.004	3.63	0.71	0.20	6.55	2.17	34.43	1.55	0.19	177.52	0.03	0.453	0.012	2.49	0.37	6.73	0.09
2031 Apr	Mean	136.97	158.27	0.03	0.01	0.65	0.06	0.11	0.11	0.01	40.82	0.35	0.77	9.95	0.56	1.36	0.18	0.013	0.007	0.27	0.77	14.41	0.038	0.024	0.29	0.02	29.36	0.006	3.37	0.99	0.20	9.15	2.01	32.30	2.16	0.26	172.54	0.04	0.633	0.014	2.57	0.44	8.90	0.13
2031 May	Mean	1903.50	2193.37	0.14	0.14	3.29	0.66	0.74	0.59	0.10	566.20	1.34	10.49	29.68	5.87	8.92	2.44	0.146	0.097	3.66	10.44	199.03	0.147	0.073	4.07	0.27	93.08	0.086	9.53	14.95	0.81	124.04	5.63	98.18	29.70	3.64	712.14	0.57	8.838	0.114	15.08	4.34	83.75	1.77
2031 Jun	Mean	2225.07	2562.99	0.15	0.16	3.43	0.76	0.80	0.62	0.12	661.68	1.30	12.23	26.76	6.72	9.58	2.85	0.164	0.113	4.28	12.16	232.46	0.142	0.066	4.75	0.32	85.55	0.101	8.47	17.65	0.81	144.53	4.99	89.59	34.67	4.26	710.86	0.67	10.338	0.125	16.13	4.94	92.52	2.07
2031 Jul	Mean	166.56	191.60	0.02	0.01	0.46	0.06	0.09	0.07	0.01	49.48	0.21	0.91	5.71	0.56	0.94	0.21	0.010	0.008	0.32	0.90	17.35	0.022	0.014	0.36	0.02	17.00	0.008	1.98	1.37	0.12	10.69	1.15	19.28	2.58	0.32	112.45	0.05	0.776	0.011	1.92	0.43	5.94	0.16
2031 Aug	Mean	98.33	113.18	0.02	0.01	0.42	0.04	0.07	0.07	0.01	29.23	0.21	0.54	6.17	0.38	0.79	0.13	0.006	0.005	0.19	0.53	10.26	0.022	0.015	0.21	0.01	18.18	0.004	2.15	0.79	0.12	6.35	1.25	20.61	1.53	0.19	110.21	0.03	0.457	0.008	1.67	0.30	4.19	0.09
2031 Sep	Mean	97.17	111.90	0.02	0.01	0.45	0.04	0.08	0.07	0.01	28.89	0.23	0.53	6.79	0.39	0.85	0.12	0.006	0.005	0.19	0.53	10.15	0.024	0.017	0.21	0.01	19.97	0.004	2.36	0.78	0.13	6.30	1.37	22.59	1.51	0.19	119.49	0.03	0.452	0.009	1.78	0.31	4.50	0.09
2031 Oct	Mean	96.72	111.41	0.02	0.01	0.47	0.04	0.08	0.08	0.01	28.76	0.24	0.53	7.25	0.40	0.89	0.12	0.007	0.005	0.19	0.53	10.11	0.026	0.018	0.21	0.01	21.32	0.004	2.52	0.77	0.14	6.28	1.46	24.09	1.51	0.19	126.55	0.03	0.449	0.009	1.86	0.31	4.73	0.09
2031 Nov	Mean	99.96	115.21	0.02	0.01	0.54	0.04	0.09	0.09	0.01	29.74	0.28	0.55	8.42	0.43	1.01	0.13	0.007	0.005	0.19	0.55	10.46	0.030	0.021	0.21	0.01	24.77	0.005	2.93	0.78	0.16	6.53	1.69	27.93	1.56	0.19	145.15	0.03	0.464	0.010	2.10	0.34	5.38	0.09
2031 Dec	Mean	102.53	118.33	0.02	0.01	0.66	0.05	0.11	0.11	0.01	30.53	0.36	0.57	10.72	0.47	1.24	0.13	0.009	0.005	0.20	0.57	10.76	0.038	0.026	0.22	0.02	31.52	0.005	3.73	0.77	0.20	6.77	2.14	35.42	1.61	0.20	180.96	0.03	0.475	0.012	2.55	0.38	6.66	0.09
2032 Jan	Mean	101.96	117.80	0.03	0.01	0.73	0.05	0.12	0.12	0.01	30.39	0.40	0.57	12.48	0.50	1.37	0.13	0.010	0.005	0.20	0.57	10.73	0.043	0.030	0.22	0.02	36.72	0.005	4.24	0.74	0.22	6.80	2.42	41.22	1.61	0.19	208.14	0.03	0.471	0.014	2.88	0.40	7.43	0.09
2032 Feb	Mean	99.83	115.40	0.03	0.01	0.73	0.05	0.12	0.13	0.01	29.76	0.41	0.56	13.04	0.50	1.39	0.13	0.010	0.005	0.19	0.57	10.51	0.044	0.030	0.21	0.02	38.39	0.005	4.33	0.72	0.23	6.69	2.45	43.10	1.58	0.19	216.52	0.03	0.461	0.014	2.97	0.40	7.51	0.09
2032 Mar	Mean	96.75	111.83	0.03	0.01	0.70	0.05	0.11	0.12	0.01	28.84	0.39	0.54	12.57	0.48	1.33	0.13	0.009	0.005	0.19	0.55	10.19	0.042	0.029	0.21	0.01	37.00	0.004	4.13	0.70	0.22	6.48	2.34	41.54	1.53	0.18	208.81	0.03	0.447	0.013	2.87	0.39	7.18	0.09
2032 Apr	Mean	168.95	194.98	0.03	0.01	0.70	0.07	0.12	0.12	0.01	50.31	0.37	0.94	11.24	0.66	1.46	0.22	0.014	0.009	0.33	0.94	17.73	0.039	0.026	0.36	0.02	33.37	0.008	3.65	1.27	0.20	11.16	2.07	37.18	2.65	0.32	197.49	0.05	0.782	0.016	2.97	0.51	9.66	0.16
2032 May	Mean	1834.95	2114.63	0.14	0.13	3.26	0.64	0.72	0.60	0.10	545.86	1.34	10.12	32.76	5.69	8.71	2.36	0.139	0.094	3.53	10.08	191.91	0.146	0.075	3.92	0.27	102.05	0.083	10.17	14.37	0.81	119.70	5.79	109.56	28.64	3.51	753.42	0.55	8.518	0.110	15.35	4.22	79.99	1.70
2032 Jun	Mean	1228.38	1415.03	0.09	0.09	2.00	0.42	0.46	0.37	0.07	365.31	0.78	6.75	17.99	3.74	5.42	1.57	0.089	0.062	2.36	6.72	128.35	0.084	0.042	2.62	0.18	56.71	0.056	5.56	9.73	0.48	79.83	3.15	60.83	19.15	2.35	444.19	0.37	5.707	0.070	9.53	2.76	50.56	1.14
2032 Jul	Mean	150.24	172.94	0.02	0.01	0.46	0.06	0.09	0.08	0.01	44.66	0.22	0.82	6.62	0.53	0.94	0.19	0.009	0.008	0.29	0.82	15.67	0.023	0.015	0.32	0.02	19.71	0.007	2.17	1.21	0.13	9.70	1.22	22.34	2.33	0.29	124.31	0.05	0.699	0.011	2.01	0.40	5.89	0.14
2032 Aug	Mean	97.96	112.78	0.02	0.01	0.43	0.04	0.07	0.07	0.01	29.12	0.22	0.54	7.01	0.39	0.81	0.13	0.006	0.005	0.19	0.53	10.22	0.023	0.016	0.21	0.01	20.71	0.004	2.32	0.79	0.12	6.33	1.30	23.56	1.52	0.19	123.25	0.03	0.456	0.008	1.83	0.30	4.33	0.09
2032 Sep	Mean	102.76	118.36	0.02	0.01	0.48	0.																																					

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ultimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2034 Jan	Mean	103.62	119.75	0.03	0.01	0.67	0.05	0.11	0.13	0.01	30.89	0.37	0.58	12.86	0.48	1.28	0.14	0.009	0.006	0.20	0.59	10.91	0.039	0.027	0.22	0.02	37.84	0.005	3.96	0.75	0.20	6.93	2.20	42.52	1.63	0.20	214.30	0.03	0.479	0.013	2.77	0.39	6.87	0.10
2034 Feb	Mean	101.67	117.55	0.03	0.01	0.67	0.05	0.11	0.13	0.01	30.32	0.37	0.57	13.12	0.48	1.28	0.13	0.009	0.006	0.20	0.58	10.71	0.040	0.027	0.22	0.02	38.59	0.005	4.08	0.73	0.21	6.82	2.22	43.32	1.61	0.19	217.97	0.03	0.469	0.013	2.77	0.39	6.90	0.09
2034 Mar	Mean	98.66	114.07	0.02	0.01	0.64	0.05	0.10	0.12	0.01	29.42	0.35	0.56	12.38	0.46	1.22	0.13	0.009	0.005	0.19	0.56	10.39	0.037	0.025	0.21	0.01	36.39	0.004	3.86	0.71	0.19	6.62	2.09	40.80	1.56	0.19	206.01	0.03	0.456	0.012	2.61	0.37	6.53	0.09
2034 Apr	Mean	161.13	185.79	0.02	0.01	0.62	0.07	0.11	0.12	0.01	47.95	0.31	0.89	10.68	0.61	1.25	0.21	0.011	0.008	0.31	0.89	16.87	0.033	0.022	0.34	0.02	31.58	0.007	3.33	1.24	0.18	10.56	1.81	35.48	2.52	0.31	188.61	0.05	0.747	0.013	2.64	0.47	7.54	0.15
2034 May	Mean	1991.62	2296.04	0.15	0.15	3.33	0.70	0.76	0.63	0.11	592.62	1.31	11.01	33.12	6.12	9.12	2.56	0.153	0.103	3.84	10.98	208.48	0.143	0.071	4.25	0.29	103.40	0.090	9.78	15.44	0.82	130.36	5.48	110.94	31.13	3.81	781.40	0.60	9.240	0.117	15.71	4.55	84.81	1.85
2034 Jun	Mean	1864.73	2149.24	0.13	0.14	2.84	0.65	0.67	0.54	0.10	554.77	1.05	10.29	24.74	5.64	8.02	2.40	0.141	0.096	3.59	10.26	195.09	0.115	0.054	3.98	0.27	78.45	0.085	7.21	14.55	0.67	121.79	4.09	83.53	29.12	3.57	634.74	0.56	8.655	0.105	13.64	4.17	76.68	1.73
2034 Jul	Mean	162.93	187.62	0.02	0.01	0.43	0.06	0.08	0.08	0.01	48.44	0.19	0.89	6.19	0.55	0.91	0.21	0.010	0.008	0.31	0.89	17.01	0.020	0.013	0.35	0.02	18.47	0.007	1.93	1.30	0.11	10.55	1.05	20.84	2.54	0.31	119.27	0.05	0.757	0.010	1.88	0.42	6.05	0.15
2034 Aug	Mean	141.99	163.76	0.02	0.01	0.49	0.06	0.09	0.09	0.01	42.26	0.24	0.79	8.19	0.52	1.03	0.18	0.010	0.007	0.27	0.79	14.88	0.026	0.017	0.30	0.02	24.30	0.006	2.55	1.09	0.14	9.33	1.38	27.20	2.22	0.27	146.97	0.04	0.658	0.011	2.11	0.40	6.70	0.13
2034 Sep	Mean	98.31	113.26	0.02	0.01	0.41	0.04	0.07	0.08	0.01	29.24	0.21	0.54	7.20	0.38	0.78	0.13	0.006	0.005	0.19	0.54	10.27	0.022	0.015	0.21	0.01	21.20	0.004	2.26	0.78	0.12	6.40	1.22	23.99	1.53	0.19	126.10	0.03	0.457	0.008	1.72	0.30	4.13	0.09
2034 Oct	Mean	98.11	113.05	0.02	0.01	0.43	0.04	0.07	0.08	0.01	29.18	0.21	0.54	7.54	0.39	0.81	0.13	0.006	0.005	0.19	0.54	10.26	0.023	0.016	0.21	0.01	22.19	0.004	2.37	0.77	0.12	6.39	1.28	25.10	1.53	0.19	131.33	0.03	0.456	0.008	1.78	0.30	4.26	0.09
2034 Nov	Mean	101.43	116.95	0.02	0.01	0.49	0.04	0.08	0.09	0.01	30.18	0.25	0.56	8.93	0.42	0.93	0.13	0.007	0.005	0.20	0.56	10.62	0.027	0.018	0.22	0.01	26.28	0.005	2.80	0.78	0.14	6.65	1.51	29.65	1.59	0.19	153.30	0.03	0.470	0.010	2.03	0.33	4.90	0.09
2034 Dec	Mean	104.53	120.68	0.02	0.01	0.59	0.05	0.10	0.11	0.01	31.14	0.32	0.58	11.28	0.46	1.13	0.14	0.008	0.006	0.20	0.59	10.98	0.034	0.023	0.22	0.02	33.20	0.005	3.54	0.78	0.18	6.93	1.90	37.34	1.64	0.20	190.09	0.03	0.484	0.011	2.45	0.37	6.02	0.10
2035 Jan	Mean	100.91	116.70	0.03	0.01	0.78	0.05	0.12	0.13	0.01	30.10	0.41	0.57	13.87	0.51	1.47	0.13	0.010	0.006	0.20	0.57	10.64	0.047	0.028	0.22	0.02	39.88	0.005	3.97	0.72	0.24	6.79	2.61	42.54	1.60	0.19	225.92	0.03	0.466	0.015	2.82	0.42	7.98	0.09
2035 Feb	Mean	95.22	110.25	0.03	0.01	0.91	0.05	0.14	0.15	0.01	28.42	0.47	0.54	15.14	0.55	1.72	0.13	0.012	0.005	0.19	0.55	10.06	0.057	0.031	0.20	0.01	42.56	0.004	3.94	0.65	0.29	6.47	3.16	42.98	1.51	0.18	240.61	0.03	0.438	0.017	2.96	0.45	9.45	0.09
2035 Mar	Mean	90.95	105.33	0.03	0.01	0.92	0.05	0.14	0.14	0.00	27.15	0.47	0.52	14.73	0.54	1.74	0.12	0.012	0.005	0.18	0.53	9.62	0.057	0.030	0.19	0.01	41.01	0.004	3.67	0.62	0.29	6.20	3.20	40.42	1.45	0.17	232.33	0.03	0.419	0.017	2.86	0.44	9.54	0.08
2035 Apr	Mean	207.88	239.89	0.04	0.02	1.11	0.09	0.19	0.17	0.01	61.90	0.54	1.16	15.95	0.89	2.25	0.27	0.020	0.011	0.40	1.16	21.81	0.066	0.033	0.44	0.03	44.58	0.009	3.87	1.57	0.34	13.72	3.52	43.30	3.26	0.40	265.40	0.06	0.963	0.024	3.64	0.71	14.39	0.19
2035 May	Mean	2241.28	2578.33	0.19	0.15	4.37	0.78	0.94	0.70	0.12	665.88	1.63	12.21	39.49	7.03	10.49	2.85	0.154	0.111	4.29	12.09	233.47	0.193	0.086	4.79	0.31	115.71	0.102	9.51	18.38	1.09	143.89	8.59	113.14	34.75	4.31	894.10	0.67	10.436	0.132	17.73	5.25	87.60	2.09
2035 Jun	Mean	2264.62	2604.59	0.17	0.15	3.84	0.78	0.87	0.63	0.12	672.70	1.34	12.32	30.14	6.91	9.60	2.87	0.152	0.112	4.33	12.18	235.78	0.157	0.067	4.83	0.32	90.16	0.103	7.25	18.68	0.91	145.09	6.48	88.31	35.09	4.35	757.77	0.68	10.549	0.125	16.32	5.13	84.28	2.11
2035 Jul	Mean	179.94	207.09	0.02	0.01	0.62	0.07	0.11	0.09	0.01	53.48	0.27	0.98	7.74	0.65	1.26	0.23	0.013	0.009	0.34	0.97	18.76	0.032	0.016	0.38	0.03	21.78	0.008	1.90	1.46	0.17	11.60	1.71	21.51	2.79	0.35	140.48	0.05	0.837	0.014	2.17	0.50	8.20	0.17
2035 Aug	Mean	111.66	128.64	0.02	0.01	0.61	0.05	0.10	0.09	0.01	33.21	0.29	0.61	8.73	0.48	1.16	0.14	0.009	0.006	0.21	0.61	11.67	0.035	0.018	0.24	0.02	24.26	0.005	2.14	0.88	0.18	7.27	1.95	23.88	1.74	0.21	145.97	0.03	0.519	0.012	1.99	0.38	6.43	0.10
2035 Sep	Mean	93.09	107.34	0.02	0.01	0.61	0.04	0.10	0.09	0.01	27.70	0.29	0.52	9.01	0.44	1.15	0.12	0.008	0.005	0.18	0.51	9.75	0.036	0.019	0.20	0.01	25.02	0.004	2.21	0.72	0.19	6.11	2.01	24.60	1.46	0.18	147.51	0.03	0.432	0.012	1.94	0.35	6.22	0.09
2035 Oct	Mean	108.66	125.30	0.03	0.01	0.70	0.05	0.11	0.10	0.01	32.34	0.34	0.60	10.35	0.50	1.32	0.14	0.010	0.006	0.21	0.60	11.38	0.041	0.021	0.23	0.02	28.78	0.005	2.55	0.84	0.21	7.13	2.29	28.33	1.70	0.21	169.66	0.03	0.504	0.013	2.23	0.40	7.30	0.10
2035 Nov	Mean	94.94	109.60	0.03	0.01	0.73	0.05	0.12	0.11	0.01	28.28	0.36	0.53	11.24	0.48	1.37	0.12	0.009	0.005	0.18	0.53	9.97	0.044	0.023	0.20	0.01	31.25	0.004	2.79	0.71	0.23	6.29	2.46	30.81	1.49	0.18	180.91	0.03	0.439	0.014	2.31	0.39	7.50	0.09
2035 Dec	Mean	96.15	111.19	0.03	0.01	0.90	0.05	0.14	0.14	0.01	28.67	0.46	0.54	14.26	0.54	1.69	0.13	0.011	0.005	0.19	0.55	10.14	0.056	0.029	0.21	0.01	39.70	0.004	3.55	0.68	0.28	6.47	3.10	39.14	1.52	0.18	226.08	0.03	0.444	0.017	2.80	0.45	9.28	0.09
2036 Jan	Mean	94.84	109.82	0.04	0.01	0.99	0.06	0.15	0.15	0.00	28.31	0.51	0.54	15.96	0.57	1.87	0.13	0.012	0.005	0.19	0.55	10.03	0.062	0.033	0.20	0.01	44.40	0.004	3.96	0.65	0.31	6.45	3.47	43.65	1.51	0.18	250.92	0.03	0.437	0.018	3.07	0.47	10.31	0.09
2036 Feb	Mean	92.73	107.42	0.04	0.01	1.00	0.05	0.15	0.15	0.00	27.69	0.51	0.53	15.97	0.57	1.88	0.12	0.013	0.005	0.18	0.54	9.81	0.063	0.033	0.20	0.01	44.34	0.004	3.93	0.62	0.32	6.33	3.50	43.39	1.48	0.18	250.50	0.03	0.427	0.018	3.06	0.47	10.39	0.09
2036 Mar	Mean	89.76	103.99	0.04	0.01																																							

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2037 Jul	Mean	190.71	219.06	0.02	0.01	0.62	0.07	0.11	0.09	0.01	56.60	0.26	1.03	7.26	0.67	1.22	0.24	0.012	0.009	0.36	1.01	19.80	0.031	0.015	0.41	0.03	20.27	0.009	1.72	1.62	0.17	12.08	1.67	19.78	2.94	0.37	134.22	0.06	0.890	0.014	2.14	0.52	7.73	0.18
2037 Aug	Mean	108.70	125.17	0.02	0.01	0.56	0.05	0.09	0.08	0.01	32.32	0.26	0.60	7.66	0.46	1.07	0.14	0.008	0.005	0.21	0.59	11.35	0.032	0.016	0.23	0.02	21.15	0.005	1.81	0.87	0.17	7.04	1.77	20.42	1.69	0.21	128.96	0.03	0.505	0.011	1.80	0.36	6.05	0.10
2037 Sep	Mean	100.47	115.79	0.02	0.01	0.60	0.05	0.10	0.09	0.01	29.89	0.28	0.55	8.32	0.45	1.12	0.13	0.008	0.005	0.19	0.55	10.51	0.034	0.017	0.21	0.01	22.91	0.005	1.96	0.78	0.18	6.56	1.92	22.12	1.57	0.19	137.67	0.03	0.466	0.011	1.87	0.36	6.11	0.09
2037 Oct	Mean	98.46	113.54	0.02	0.01	0.63	0.05	0.10	0.09	0.01	29.30	0.30	0.55	8.98	0.46	1.19	0.13	0.008	0.005	0.19	0.54	10.31	0.037	0.019	0.21	0.01	24.72	0.004	2.12	0.76	0.19	6.46	2.07	23.83	1.54	0.19	147.09	0.03	0.457	0.012	1.96	0.37	6.49	0.09
2037 Nov	Mean	119.18	137.41	0.03	0.01	0.75	0.06	0.12	0.11	0.01	35.47	0.36	0.66	10.66	0.55	1.44	0.15	0.011	0.006	0.23	0.66	12.48	0.044	0.022	0.25	0.02	29.41	0.005	2.51	0.92	0.23	7.81	2.45	28.23	1.86	0.23	174.49	0.04	0.553	0.015	2.34	0.44	8.20	0.11
2037 Dec	Mean	97.89	113.18	0.03	0.01	0.84	0.05	0.13	0.12	0.01	29.19	0.41	0.55	12.44	0.53	1.58	0.13	0.011	0.005	0.19	0.56	10.32	0.051	0.026	0.21	0.01	34.23	0.004	2.92	0.70	0.26	6.58	2.87	32.76	1.55	0.19	198.04	0.03	0.452	0.016	2.52	0.43	8.65	0.09
2038 Jan	Mean	96.74	112.00	0.03	0.01	0.93	0.05	0.14	0.14	0.01	28.87	0.47	0.55	14.01	0.56	1.76	0.13	0.012	0.005	0.19	0.56	10.23	0.058	0.029	0.21	0.02	38.50	0.004	3.28	0.66	0.29	6.57	3.23	36.71	1.54	0.18	220.81	0.03	0.446	0.017	2.77	0.46	9.67	0.09
2038 Feb	Mean	94.45	109.41	0.04	0.01	0.95	0.05	0.15	0.14	0.00	28.20	0.47	0.54	14.25	0.56	1.79	0.12	0.012	0.005	0.19	0.55	10.00	0.059	0.029	0.20	0.01	39.11	0.004	3.32	0.64	0.30	6.45	3.29	37.20	1.50	0.18	223.84	0.03	0.435	0.018	2.80	0.46	9.84	0.09
2038 Mar	Mean	91.44	105.93	0.03	0.01	0.92	0.05	0.14	0.13	0.00	27.30	0.46	0.52	13.70	0.54	1.73	0.12	0.012	0.005	0.18	0.53	9.68	0.057	0.028	0.20	0.01	37.57	0.004	3.17	0.62	0.29	6.24	3.18	35.63	1.46	0.17	215.19	0.03	0.421	0.017	2.70	0.44	9.50	0.08
2038 Apr	Mean	107.02	123.54	0.03	0.01	0.76	0.05	0.12	0.11	0.01	31.88	0.37	0.60	10.90	0.52	1.46	0.14	0.011	0.006	0.21	0.60	11.24	0.046	0.023	0.23	0.02	29.93	0.005	2.52	0.80	0.23	7.09	2.54	28.42	1.68	0.20	175.95	0.03	0.495	0.015	2.32	0.42	8.22	0.10
2038 May	Mean	2610.04	2993.63	0.22	0.16	5.23	0.89	1.11	0.80	0.14	773.77	1.90	13.93	46.11	8.14	11.51	3.26	0.161	0.122	4.94	13.64	270.04	0.226	0.102	5.57	0.35	132.86	0.119	10.69	23.04	1.28	163.04	10.60	128.57	40.02	5.05	1031.52	0.77	12.215	0.149	20.48	6.10	91.91	2.44
2038 Jun	Mean	1666.31	1910.42	0.12	0.10	2.79	0.56	0.63	0.44	0.09	493.85	0.93	8.87	20.61	5.01	6.43	2.07	0.101	0.077	3.15	8.67	172.24	0.109	0.046	3.55	0.22	60.96	0.076	4.76	14.85	0.64	103.69	4.68	59.16	25.51	3.23	526.17	0.49	7.803	0.088	11.62	3.73	55.64	1.56
2038 Jul	Mean	139.48	160.34	0.02	0.01	0.53	0.05	0.09	0.08	0.01	41.42	0.23	0.76	6.40	0.52	1.04	0.18	0.010	0.007	0.27	0.75	14.51	0.028	0.014	0.30	0.02	17.71	0.006	1.47	1.16	0.15	8.90	1.52	16.92	2.16	0.27	114.02	0.04	0.650	0.011	1.75	0.40	6.38	0.13
2038 Aug	Mean	103.17	118.83	0.02	0.01	0.55	0.05	0.09	0.08	0.01	30.68	0.25	0.57	7.36	0.44	1.04	0.13	0.008	0.005	0.20	0.56	10.78	0.031	0.016	0.22	0.01	20.20	0.005	1.70	0.82	0.16	6.70	1.74	19.32	1.61	0.20	123.64	0.03	0.479	0.011	1.72	0.35	5.67	0.10
2038 Sep	Mean	96.40	111.13	0.02	0.01	0.58	0.04	0.09	0.08	0.01	28.68	0.27	0.53	7.87	0.43	1.08	0.12	0.008	0.005	0.19	0.53	10.09	0.033	0.017	0.21	0.01	21.58	0.004	1.82	0.75	0.17	6.31	1.86	20.59	1.51	0.18	130.24	0.03	0.447	0.011	1.77	0.34	5.87	0.09
2038 Oct	Mean	96.68	111.50	0.02	0.01	0.61	0.04	0.10	0.09	0.01	28.78	0.29	0.54	8.49	0.44	1.15	0.12	0.008	0.005	0.19	0.54	10.13	0.036	0.018	0.21	0.01	23.26	0.004	1.96	0.74	0.19	6.35	2.00	22.17	1.51	0.18	139.30	0.03	0.448	0.012	1.88	0.36	6.25	0.09
2038 Nov	Mean	96.28	111.15	0.03	0.01	0.68	0.05	0.11	0.10	0.01	28.68	0.33	0.54	9.69	0.47	1.29	0.12	0.009	0.005	0.19	0.54	10.11	0.041	0.020	0.21	0.01	26.54	0.004	2.23	0.72	0.21	6.38	2.28	25.24	1.51	0.18	156.88	0.03	0.446	0.013	2.07	0.38	7.00	0.09
2038 Dec	Mean	98.24	113.60	0.03	0.01	0.83	0.05	0.13	0.12	0.01	29.30	0.41	0.55	12.05	0.52	1.56	0.13	0.011	0.005	0.19	0.56	10.35	0.051	0.025	0.21	0.01	33.02	0.004	2.77	0.70	0.26	6.60	2.83	31.28	1.55	0.19	191.90	0.03	0.453	0.015	2.46	0.43	8.54	0.09
2039 Jan	Mean	97.13	112.46	0.03	0.01	0.92	0.05	0.14	0.13	0.01	28.99	0.46	0.55	13.60	0.55	1.74	0.13	0.012	0.005	0.19	0.56	10.27	0.057	0.028	0.21	0.02	37.24	0.004	3.13	0.66	0.29	6.60	3.18	35.20	1.54	0.18	214.44	0.03	0.447	0.017	2.71	0.46	9.55	0.09
2039 Feb	Mean	94.76	109.77	0.03	0.01	0.94	0.05	0.14	0.13	0.00	28.29	0.47	0.54	13.88	0.55	1.77	0.13	0.012	0.005	0.19	0.55	10.03	0.058	0.029	0.20	0.01	37.99	0.004	3.18	0.64	0.29	6.47	3.25	35.85	1.51	0.18	218.09	0.03	0.436	0.017	2.74	0.46	9.72	0.09
2039 Mar	Mean	91.68	106.20	0.03	0.01	0.91	0.05	0.14	0.13	0.00	27.37	0.45	0.52	13.39	0.53	1.71	0.12	0.011	0.005	0.18	0.53	9.70	0.056	0.028	0.20	0.01	36.63	0.004	3.07	0.62	0.28	6.26	3.14	34.54	1.46	0.17	210.40	0.03	0.422	0.017	2.65	0.44	9.40	0.08
2039 Apr	Mean	167.42	192.97	0.04	0.02	0.98	0.08	0.16	0.14	0.01	49.81	0.46	0.92	13.38	0.74	1.92	0.22	0.016	0.009	0.32	0.92	17.52	0.058	0.028	0.36	0.02	36.86	0.008	3.05	1.31	0.30	10.93	3.14	34.64	2.61	0.32	219.84	0.05	0.777	0.020	3.02	0.59	11.89	0.16
2039 May	Mean	2333.60	2676.35	0.19	0.15	4.51	0.80	0.97	0.71	0.13	691.78	1.65	12.44	38.74	7.23	10.28	2.91	0.152	0.109	4.41	12.18	241.39	0.197	0.085	4.98	0.31	112.49	0.106	8.80	20.64	1.10	145.66	8.86	106.92	35.77	4.52	878.41	0.69	10.922	0.136	17.85	5.41	87.24	2.18
2039 Jun	Mean	1863.94	2136.96	0.14	0.11	3.09	0.62	0.70	0.49	0.10	552.41	1.03	9.92	22.48	5.59	7.19	2.32	0.114	0.086	3.52	9.69	192.65	0.121	0.051	3.98	0.25	66.70	0.085	5.15	16.62	0.71	115.96	5.10	64.32	28.53	3.61	578.63	0.55	8.729	0.099	12.89	4.16	63.20	1.75
2039 Jul	Mean	172.16	197.86	0.02	0.01	0.61	0.07	0.11	0.09	0.01	51.11	0.26	0.93	7.29	0.63	1.21	0.22	0.011	0.008	0.33	0.92	17.89	0.032	0.016	0.37	0.02	20.17	0.008	1.67	1.45	0.17	10.96	1.73	19.30	2.66	0.33	131.58	0.05	0.803	0.014	2.05	0.49	7.52	0.16
2039 Aug	Mean	100.73	116.03	0.02	0.01	0.53	0.04	0.09	0.07	0.01	29.96	0.24	0.55	7.09	0.43	1.01	0.13	0.007	0.005	0.19	0.55	10.52	0.030	0.015	0.22	0.01	19.43	0.005	1.63	0.80	0.16	6.54	1.69	18.55	1.57	0.19	119.27	0.03	0.468	0.010	1.67	0.34	5.47	0.09
2039 Sep	Mean	94.43	108.85	0.02	0.01	0.56</																																						

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2041 Jan	Mean	97.49	112.88	0.03	0.01	0.91	0.05	0.14	0.13	0.01	29.10	0.45	0.55	13.21	0.55	1.72	0.13	0.012	0.005	0.19	0.56	10.30	0.056	0.028	0.21	0.02	36.07	0.004	2.99	0.67	0.28	6.63	3.14	33.83	1.55	0.18	208.46	0.03	0.449	0.017	2.65	0.45	9.42	0.09
2041 Feb	Mean	95.14	110.21	0.03	0.01	0.92	0.05	0.14	0.13	0.01	28.41	0.46	0.54	13.47	0.55	1.75	0.13	0.012	0.005	0.19	0.55	10.07	0.057	0.028	0.20	0.01	36.74	0.004	3.04	0.64	0.29	6.50	3.20	34.38	1.51	0.18	211.74	0.03	0.438	0.017	2.68	0.45	9.59	0.09
2041 Mar	Mean	92.04	106.63	0.03	0.01	0.89	0.05	0.14	0.12	0.00	27.48	0.44	0.53	12.94	0.53	1.69	0.12	0.011	0.005	0.18	0.53	9.74	0.055	0.027	0.20	0.01	35.27	0.004	2.91	0.62	0.28	6.28	3.09	32.94	1.46	0.17	203.45	0.03	0.424	0.017	2.58	0.44	9.25	0.08
2041 Apr	Mean	104.78	120.97	0.03	0.01	0.74	0.05	0.12	0.10	0.01	31.21	0.35	0.58	10.25	0.51	1.42	0.14	0.011	0.006	0.20	0.59	11.00	0.045	0.021	0.22	0.02	28.02	0.005	2.29	0.78	0.23	6.95	2.45	26.10	1.65	0.20	165.23	0.03	0.485	0.014	2.20	0.41	8.30	0.10
2041 May	Mean	2270.01	2603.61	0.19	0.14	4.46	0.78	0.95	0.69	0.13	672.96	1.62	12.11	37.91	7.05	10.07	2.83	0.147	0.106	4.29	11.86	234.85	0.195	0.084	4.84	0.30	109.40	0.103	8.43	20.04	1.09	141.79	8.88	103.09	34.81	4.39	857.68	0.67	10.623	0.132	17.42	5.28	84.14	2.12
2041 Jun	Mean	2156.30	2472.14	0.16	0.13	3.53	0.72	0.81	0.56	0.12	639.05	1.16	11.47	24.74	6.46	8.26	2.68	0.133	0.100	4.07	11.21	222.87	0.138	0.056	4.60	0.29	73.37	0.098	5.50	19.23	0.81	134.16	5.73	69.78	33.01	4.18	648.99	0.64	10.099	0.114	14.71	4.80	73.24	2.02
2041 Jul	Mean	161.87	185.98	0.02	0.01	0.52	0.06	0.10	0.07	0.01	48.05	0.21	0.87	5.78	0.57	1.02	0.20	0.010	0.008	0.31	0.86	16.81	0.026	0.013	0.35	0.02	15.91	0.007	1.30	1.37	0.14	10.27	1.42	15.17	2.50	0.31	108.18	0.05	0.755	0.011	1.76	0.44	6.07	0.15
2041 Aug	Mean	161.58	185.91	0.03	0.01	0.70	0.07	0.12	0.10	0.01	48.01	0.31	0.88	8.56	0.63	1.36	0.21	0.012	0.008	0.31	0.87	16.84	0.038	0.018	0.34	0.02	23.44	0.007	1.89	1.32	0.20	10.39	2.09	21.89	2.51	0.31	148.37	0.05	0.752	0.015	2.21	0.49	8.20	0.15
2041 Sep	Mean	150.63	173.45	0.03	0.01	0.74	0.06	0.12	0.10	0.01	44.78	0.34	0.83	9.36	0.62	1.45	0.19	0.012	0.008	0.29	0.82	15.73	0.042	0.020	0.32	0.02	25.57	0.007	2.04	1.20	0.22	9.76	2.29	23.64	2.34	0.29	158.13	0.05	0.700	0.015	2.29	0.49	8.82	0.14
2041 Oct	Mean	94.60	109.10	0.02	0.01	0.57	0.04	0.09	0.08	0.01	28.16	0.26	0.52	7.43	0.42	1.07	0.12	0.008	0.005	0.18	0.52	9.91	0.033	0.016	0.20	0.01	20.17	0.004	1.63	0.73	0.17	6.21	1.83	18.78	1.48	0.18	122.85	0.03	0.439	0.011	1.70	0.34	5.75	0.09
2041 Nov	Mean	97.27	112.27	0.02	0.01	0.65	0.05	0.10	0.09	0.01	28.97	0.30	0.54	8.74	0.46	1.23	0.13	0.009	0.005	0.19	0.54	10.21	0.038	0.018	0.21	0.01	23.71	0.004	1.91	0.73	0.20	6.44	2.15	21.99	1.53	0.19	142.33	0.03	0.450	0.012	1.92	0.37	6.64	0.09
2041 Dec	Mean	99.24	114.74	0.03	0.01	0.79	0.05	0.12	0.11	0.01	29.59	0.38	0.56	10.97	0.51	1.50	0.13	0.010	0.005	0.19	0.56	10.46	0.048	0.023	0.21	0.02	29.75	0.004	2.40	0.71	0.25	6.67	2.69	27.47	1.57	0.19	175.22	0.03	0.458	0.015	2.30	0.42	8.17	0.09
2042 Jan	Mean	98.21	113.70	0.03	0.01	0.88	0.05	0.14	0.12	0.01	29.31	0.43	0.56	12.42	0.54	1.67	0.13	0.011	0.005	0.19	0.57	10.38	0.054	0.026	0.21	0.02	33.67	0.004	2.71	0.67	0.28	6.67	3.04	30.99	1.56	0.19	196.20	0.03	0.452	0.016	2.53	0.45	9.16	0.09
2042 Feb	Mean	95.84	111.01	0.03	0.01	0.90	0.05	0.14	0.12	0.01	28.62	0.44	0.55	12.70	0.54	1.71	0.13	0.011	0.005	0.19	0.55	10.14	0.056	0.027	0.21	0.01	34.40	0.004	2.76	0.65	0.28	6.54	3.11	31.61	1.52	0.18	199.80	0.03	0.441	0.017	2.56	0.45	9.34	0.09
2042 Mar	Mean	92.74	107.43	0.03	0.01	0.87	0.05	0.13	0.12	0.00	27.69	0.42	0.53	12.24	0.53	1.65	0.12	0.011	0.005	0.18	0.54	9.81	0.054	0.026	0.20	0.01	33.14	0.004	2.66	0.62	0.27	6.33	3.00	30.40	1.48	0.18	192.58	0.03	0.427	0.016	2.47	0.43	9.03	0.09
2042 Apr	Mean	119.03	137.35	0.03	0.01	0.76	0.06	0.12	0.10	0.01	35.44	0.36	0.66	10.13	0.55	1.46	0.15	0.011	0.006	0.23	0.66	12.49	0.045	0.021	0.25	0.02	27.50	0.005	2.20	0.90	0.23	7.85	2.50	25.34	1.87	0.23	165.47	0.04	0.551	0.015	2.26	0.44	8.20	0.11
2042 May	Mean	2255.06	2586.35	0.19	0.14	4.30	0.77	0.93	0.66	0.12	668.51	1.54	12.03	34.93	6.96	9.81	2.81	0.146	0.105	4.26	11.78	233.29	0.186	0.078	4.81	0.30	100.85	0.103	7.55	19.93	1.05	140.80	8.33	93.77	34.57	4.37	809.59	0.67	10.554	0.130	16.86	5.21	83.16	2.11
2042 Jun	Mean	2382.29	2731.30	0.17	0.14	3.91	0.79	0.89	0.61	0.13	706.04	1.28	12.68	26.90	7.14	9.15	2.97	0.147	0.110	4.50	12.39	246.25	0.153	0.062	5.08	0.32	79.53	0.109	5.83	21.23	0.89	148.25	6.36	74.77	36.47	4.62	709.54	0.71	11.156	0.126	16.18	5.30	81.02	2.23
2042 Jul	Mean	177.63	204.14	0.02	0.01	0.60	0.07	0.11	0.08	0.01	52.74	0.25	0.96	6.69	0.64	1.19	0.22	0.012	0.009	0.34	0.95	18.46	0.031	0.015	0.38	0.02	18.34	0.008	1.45	1.49	0.17	11.30	1.67	17.07	2.74	0.34	122.89	0.05	0.828	0.013	1.99	0.49	7.50	0.17
2042 Aug	Mean	104.31	120.14	0.02	0.01	0.52	0.04	0.09	0.07	0.01	31.02	0.23	0.57	6.41	0.43	0.98	0.13	0.007	0.005	0.20	0.57	10.90	0.029	0.014	0.22	0.01	17.35	0.005	1.38	0.83	0.15	6.77	1.61	16.04	1.62	0.20	109.00	0.03	0.485	0.010	1.58	0.34	5.35	0.10
2042 Sep	Mean	94.95	109.47	0.02	0.01	0.54	0.04	0.09	0.07	0.01	28.25	0.24	0.52	6.86	0.42	1.02	0.12	0.007	0.005	0.18	0.52	9.94	0.031	0.015	0.20	0.01	18.54	0.004	1.47	0.74	0.16	6.22	1.72	17.07	1.48	0.18	114.27	0.03	0.441	0.010	1.61	0.33	5.47	0.09
2042 Oct	Mean	130.86	150.76	0.03	0.01	0.68	0.06	0.11	0.09	0.01	38.92	0.30	0.72	8.48	0.55	1.29	0.17	0.010	0.007	0.25	0.72	13.68	0.038	0.018	0.28	0.02	22.97	0.006	1.82	1.03	0.20	8.51	2.12	21.13	2.04	0.25	142.82	0.04	0.608	0.013	2.05	0.44	7.30	0.12
2042 Nov	Mean	97.64	112.70	0.02	0.01	0.64	0.05	0.10	0.09	0.01	29.08	0.30	0.54	8.41	0.46	1.21	0.13	0.008	0.005	0.19	0.54	10.25	0.038	0.018	0.21	0.01	22.73	0.004	1.80	0.73	0.19	6.46	2.10	20.86	1.53	0.19	137.34	0.03	0.452	0.012	1.87	0.37	6.52	0.09
2042 Dec	Mean	99.52	115.06	0.03	0.01	0.78	0.05	0.12	0.10	0.01	29.67	0.37	0.56	10.59	0.51	1.48	0.13	0.010	0.005	0.19	0.57	10.49	0.047	0.022	0.21	0.02	28.61	0.004	2.27	0.71	0.24	6.68	2.64	26.14	1.57	0.19	169.35	0.03	0.459	0.015	2.24	0.42	8.04	0.09
2043 Jan	Mean	98.53	114.07	0.03	0.01	0.87	0.05	0.14	0.12	0.01	29.41	0.42	0.56	12.05	0.54	1.65	0.13	0.011	0.005	0.19	0.57	10.41	0.054	0.025	0.21	0.02	32.54	0.004	2.58	0.68	0.27	6.69	2.99	29.66	1.56	0.19	190.41	0.03	0.454	0.016	2.47	0.44	9.03	0.09
2043 Feb	Mean	96.17	111.41	0.03	0.01	0.89	0.05	0.14	0.12	0.01	28.72	0.43	0.55	12.37	0.54	1.69	0.13	0.011	0.005	0.19	0.56	10.18	0.055	0.026	0.21	0.02	33.40	0.004	2.65	0.65	0.28	6.56	3.07	30.42	1.53	0.18	194.68	0.03	0.443	0.017	2.51	0.44	9.24	0.09
2043 Mar	Mean	92.94	107.67	0.03	0.01	0.86																																						

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	159.81	183.65	0.02	0.01	0.53	0.06	0.10	0.07	0.01	47.44	0.22	0.86	5.69	0.57	1.05	0.20	0.010	0.008	0.30	0.85	16.61	0.027	0.012	0.34	0.02	15.55	0.007	1.20	1.35	0.15	10.16	1.44	14.34	2.47	0.31	105.62	0.05	0.745	0.012	1.74	0.44	6.57	0.15
2044 Aug	Mean	118.49	136.43	0.02	0.01	0.56	0.05	0.09	0.07	0.01	35.23	0.24	0.65	6.72	0.48	1.06	0.15	0.008	0.006	0.23	0.65	12.37	0.031	0.015	0.25	0.02	18.13	0.005	1.41	0.95	0.16	7.67	1.72	16.60	1.84	0.23	115.31	0.04	0.551	0.011	1.70	0.38	5.89	0.11
2044 Sep	Mean	95.19	109.74	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.32	0.24	0.53	6.62	0.41	1.00	0.12	0.007	0.005	0.18	0.52	9.96	0.030	0.014	0.20	0.01	17.82	0.004	1.39	0.74	0.16	6.23	1.69	16.25	1.49	0.18	110.60	0.03	0.442	0.010	1.57	0.33	5.38	0.09
2044 Oct	Mean	141.82	163.33	0.03	0.01	0.69	0.06	0.12	0.09	0.01	42.17	0.30	0.78	8.38	0.58	1.32	0.18	0.011	0.007	0.27	0.77	14.81	0.039	0.018	0.30	0.02	22.65	0.006	1.76	1.13	0.20	9.20	2.13	20.64	2.21	0.27	142.62	0.04	0.659	0.014	2.09	0.46	7.57	0.13
2044 Nov	Mean	97.67	112.74	0.02	0.01	0.64	0.05	0.10	0.08	0.01	29.09	0.29	0.54	8.21	0.46	1.20	0.13	0.008	0.005	0.19	0.55	10.25	0.037	0.018	0.21	0.01	22.09	0.004	1.72	0.73	0.19	6.46	2.09	20.06	1.53	0.19	134.11	0.03	0.452	0.012	1.84	0.37	6.48	0.09
2044 Dec	Mean	99.92	115.54	0.03	0.01	0.78	0.05	0.12	0.10	0.01	29.80	0.37	0.56	10.35	0.51	1.47	0.13	0.010	0.005	0.19	0.57	10.53	0.047	0.022	0.21	0.02	27.85	0.005	2.17	0.71	0.24	6.71	2.62	25.18	1.58	0.19	165.54	0.03	0.461	0.015	2.20	0.41	7.99	0.09
2045 Jan	Mean	98.91	114.51	0.03	0.01	0.87	0.05	0.13	0.11	0.01	29.52	0.41	0.56	11.73	0.54	1.64	0.13	0.011	0.006	0.19	0.57	10.45	0.053	0.025	0.21	0.02	31.57	0.004	2.46	0.68	0.27	6.72	2.96	28.48	1.57	0.19	185.51	0.03	0.455	0.016	2.42	0.44	8.95	0.09
2045 Feb	Mean	96.50	111.78	0.03	0.01	0.88	0.05	0.14	0.12	0.01	28.81	0.42	0.55	12.01	0.54	1.67	0.13	0.011	0.005	0.19	0.56	10.21	0.054	0.025	0.21	0.02	32.32	0.004	2.52	0.65	0.28	6.59	3.03	29.13	1.54	0.18	189.20	0.03	0.444	0.016	2.46	0.44	9.13	0.09
2045 Mar	Mean	93.27	108.05	0.03	0.01	0.85	0.05	0.13	0.11	0.00	27.85	0.41	0.53	11.59	0.52	1.61	0.12	0.011	0.005	0.18	0.54	9.87	0.052	0.025	0.20	0.01	31.18	0.004	2.43	0.63	0.27	6.37	2.93	28.08	1.48	0.18	182.57	0.03	0.429	0.016	2.37	0.43	8.82	0.09
2045 Apr	Mean	189.58	218.22	0.03	0.02	0.85	0.08	0.15	0.12	0.01	56.35	0.38	1.04	10.27	0.75	1.70	0.24	0.016	0.009	0.36	1.03	19.77	0.048	0.022	0.40	0.03	27.97	0.009	2.15	1.53	0.25	12.24	2.58	25.25	2.95	0.36	175.75	0.06	0.882	0.019	2.63	0.59	10.90	0.18
2045 May	Mean	2900.58	3326.63	0.23	0.18	5.41	0.98	1.17	0.83	0.16	859.86	1.91	15.47	42.05	8.92	12.46	3.62	0.189	0.135	5.48	15.14	300.05	0.232	0.094	6.19	0.39	121.44	0.132	8.78	25.65	1.31	181.07	10.23	111.02	44.46	5.62	995.50	0.86	13.576	0.166	21.22	6.66	107.34	2.72
2045 Jun	Mean	2380.37	2729.13	0.17	0.14	3.88	0.79	0.89	0.59	0.13	705.48	1.25	12.67	25.73	7.12	8.98	2.96	0.142	0.110	4.50	12.38	246.05	0.148	0.060	5.08	0.32	75.74	0.109	5.47	21.21	0.88	148.15	6.26	71.08	36.45	4.61	693.86	0.71	11.147	0.123	16.01	5.29	77.98	2.23
2045 Jul	Mean	160.52	184.45	0.02	0.01	0.51	0.06	0.09	0.07	0.01	47.65	0.21	0.87	5.36	0.56	1.02	0.20	0.010	0.008	0.31	0.85	16.68	0.026	0.012	0.34	0.02	14.65	0.007	1.12	1.36	0.14	10.20	1.37	13.41	2.48	0.31	100.67	0.05	0.749	0.012	1.69	0.43	6.54	0.15
2045 Aug	Mean	96.73	111.44	0.02	0.01	0.48	0.04	0.08	0.06	0.01	28.77	0.21	0.53	5.83	0.40	0.91	0.12	0.007	0.005	0.19	0.53	10.11	0.027	0.013	0.21	0.01	15.66	0.004	1.21	0.76	0.14	6.29	1.51	14.23	1.51	0.19	99.21	0.03	0.449	0.009	1.45	0.32	4.90	0.09
2045 Sep	Mean	113.50	130.84	0.02	0.01	0.62	0.05	0.10	0.08	0.01	33.77	0.28	0.63	7.65	0.49	1.18	0.15	0.009	0.006	0.22	0.63	11.88	0.035	0.016	0.24	0.02	20.55	0.005	1.58	0.88	0.19	7.42	1.97	18.59	1.77	0.22	128.11	0.03	0.527	0.012	1.83	0.39	6.37	0.11
2045 Oct	Mean	95.80	110.49	0.02	0.01	0.56	0.04	0.09	0.07	0.01	28.51	0.25	0.53	6.91	0.42	1.05	0.12	0.008	0.005	0.18	0.53	10.04	0.032	0.015	0.20	0.01	18.52	0.004	1.42	0.73	0.17	6.29	1.79	16.71	1.50	0.18	114.66	0.03	0.444	0.011	1.62	0.34	5.63	0.09
2045 Nov	Mean	141.83	163.45	0.03	0.01	0.75	0.06	0.12	0.10	0.01	42.19	0.34	0.78	9.21	0.60	1.47	0.18	0.012	0.007	0.27	0.78	14.83	0.043	0.020	0.30	0.02	24.89	0.006	1.89	1.11	0.22	9.25	2.35	22.27	2.21	0.27	153.82	0.04	0.658	0.015	2.22	0.48	8.90	0.13
2045 Dec	Mean	100.13	115.78	0.03	0.01	0.77	0.05	0.12	0.10	0.01	29.86	0.36	0.56	10.08	0.51	1.46	0.13	0.010	0.005	0.20	0.57	10.55	0.046	0.021	0.21	0.02	27.04	0.005	2.07	0.71	0.24	6.73	2.59	24.21	1.58	0.19	161.42	0.03	0.462	0.014	2.16	0.41	7.92	0.09
2046 Jan	Mean	99.19	114.84	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.61	0.41	0.56	11.42	0.54	1.62	0.13	0.011	0.006	0.19	0.57	10.48	0.052	0.024	0.21	0.02	30.62	0.004	2.35	0.68	0.27	6.74	2.92	27.35	1.58	0.19	180.66	0.03	0.457	0.016	2.38	0.44	8.86	0.09
2046 Feb	Mean	96.80	112.14	0.03	0.01	0.87	0.05	0.14	0.11	0.01	28.91	0.42	0.55	11.69	0.54	1.65	0.13	0.011	0.005	0.19	0.56	10.24	0.054	0.025	0.21	0.02	31.34	0.004	2.40	0.65	0.27	6.61	2.99	27.96	1.54	0.18	184.20	0.03	0.445	0.016	2.41	0.44	9.03	0.09
2046 Mar	Mean	93.56	108.38	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.94	0.40	0.53	11.28	0.52	1.60	0.12	0.011	0.005	0.18	0.54	9.90	0.052	0.024	0.20	0.01	30.24	0.004	2.31	0.63	0.26	6.39	2.89	26.95	1.49	0.18	177.76	0.03	0.430	0.016	2.32	0.42	8.73	0.09
2046 Apr	Mean	169.51	195.32	0.03	0.01	0.88	0.07	0.15	0.12	0.01	50.42	0.40	0.93	10.84	0.72	1.74	0.22	0.015	0.009	0.33	0.93	17.72	0.051	0.023	0.36	0.02	29.30	0.008	2.22	1.33	0.26	11.05	2.77	26.15	2.64	0.32	181.08	0.05	0.787	0.018	2.63	0.57	10.76	0.16
2046 May	Mean	2919.10	3347.70	0.23	0.18	5.29	0.99	1.16	0.81	0.16	865.31	1.83	15.56	39.50	8.92	12.18	3.64	0.186	0.136	5.52	15.23	301.93	0.222	0.090	6.23	0.39	114.16	0.133	8.15	25.85	1.26	182.13	9.73	104.22	44.74	5.65	961.62	0.87	13.664	0.163	20.91	6.66	104.76	2.73
2046 Jun	Mean	1723.49	1975.97	0.12	0.10	2.77	0.57	0.64	0.43	0.10	510.79	0.89	9.17	17.91	5.14	6.47	2.15	0.104	0.080	3.25	8.97	178.15	0.106	0.042	3.68	0.23	52.81	0.079	3.73	15.36	0.63	107.25	4.40	49.05	26.39	3.34	490.55	0.51	8.071	0.089	11.47	3.82	56.89	1.61
2046 Jul	Mean	179.03	205.71	0.02	0.01	0.56	0.07	0.10	0.07	0.01	53.14	0.23	0.97	5.82	0.63	1.12	0.23	0.011	0.009	0.34	0.95	18.60	0.028	0.013	0.38	0.02	15.81	0.008	1.19	1.51	0.15	11.37	1.52	14.39	2.76	0.34	109.96	0.05	0.835	0.013	1.86	0.48	7.01	0.17
2046 Aug	Mean	96.73	111.45	0.02	0.01	0.48	0.04	0.08	0.06	0.01	28.77	0.21	0.53	5.71	0.40	0.91	0.12	0.007	0.005	0.19	0.53	10.11	0.027	0.012	0.21	0.01	15.28	0.004	1.16	0.76	0.14	6.29	1.50	13.73	1.51	0.19	97.27	0.03	0.449	0.009	1.43	0.32	4.89	0.09
2046 Sep	Mean	121.18	139.57	0.02	0.01	0.58	0																																					

Table A-2
Monthly WQ Report for Scenario A.1.b - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	99.65	115.37	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.74	0.40	0.57	10.91	0.53	1.59	0.13	0.011	0.006	0.20	0.57	10.53	0.051	0.023	0.21	0.02	29.07	0.004	2.17	0.68	0.26	6.77	2.86	25.55	1.58	0.19	172.74	0.03	0.459	0.016	2.30	0.43	8.68	0.09
2048 Feb	Mean	97.26	112.67	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.04	0.41	0.56	11.22	0.53	1.63	0.13	0.011	0.005	0.19	0.56	10.29	0.053	0.024	0.21	0.02	29.92	0.004	2.24	0.66	0.27	6.64	2.93	26.29	1.55	0.18	176.95	0.03	0.448	0.016	2.34	0.44	8.88	0.09
2048 Mar	Mean	93.96	108.84	0.03	0.01	0.83	0.05	0.13	0.11	0.00	28.06	0.39	0.54	10.87	0.52	1.57	0.12	0.011	0.005	0.18	0.54	9.94	0.051	0.023	0.20	0.01	28.98	0.004	2.16	0.63	0.26	6.41	2.84	25.46	1.50	0.18	171.36	0.03	0.432	0.015	2.26	0.42	8.60	0.09
2048 Apr	Mean	110.80	127.94	0.03	0.01	0.72	0.05	0.12	0.09	0.01	33.01	0.33	0.62	9.07	0.52	1.38	0.14	0.010	0.006	0.21	0.62	11.64	0.043	0.020	0.24	0.02	24.20	0.005	1.81	0.82	0.22	7.35	2.38	21.43	1.74	0.21	147.75	0.03	0.513	0.014	2.05	0.42	7.52	0.10
2048 May	Mean	2349.92	2695.45	0.20	0.15	4.54	0.80	0.97	0.68	0.13	696.68	1.60	12.54	35.33	7.28	10.28	2.93	0.151	0.110	4.45	12.29	243.16	0.196	0.080	5.01	0.31	100.83	0.107	7.14	20.71	1.11	146.88	8.89	91.07	36.04	4.55	825.45	0.70	10.996	0.135	17.43	5.45	85.94	2.20
2048 Jun	Mean	2376.49	2724.61	0.17	0.14	3.79	0.79	0.87	0.58	0.13	704.32	1.20	12.64	23.88	7.08	8.88	2.96	0.144	0.110	4.49	12.36	245.64	0.144	0.056	5.07	0.32	70.53	0.108	4.88	21.19	0.85	147.87	5.91	64.94	36.38	4.60	663.14	0.70	11.129	0.123	15.68	5.25	78.87	2.23
2048 Jul	Mean	156.72	180.08	0.02	0.01	0.49	0.06	0.09	0.06	0.01	46.52	0.19	0.85	4.91	0.55	0.95	0.20	0.009	0.008	0.30	0.83	16.28	0.024	0.011	0.33	0.02	13.27	0.007	1.00	1.32	0.13	9.96	1.31	12.12	2.42	0.30	94.09	0.05	0.731	0.011	1.60	0.42	5.54	0.15
2048 Aug	Mean	96.91	111.65	0.02	0.01	0.48	0.04	0.08	0.06	0.01	28.82	0.21	0.53	5.53	0.40	0.90	0.12	0.007	0.005	0.19	0.53	10.13	0.026	0.012	0.21	0.01	14.75	0.004	1.10	0.77	0.14	6.30	1.47	13.14	1.51	0.19	94.55	0.03	0.450	0.009	1.40	0.31	4.80	0.09
2048 Sep	Mean	144.26	166.11	0.03	0.01	0.66	0.06	0.11	0.09	0.01	42.89	0.29	0.79	7.53	0.58	1.29	0.18	0.011	0.007	0.28	0.79	15.06	0.037	0.016	0.31	0.02	20.21	0.007	1.47	1.15	0.19	9.34	2.00	17.74	2.24	0.28	129.36	0.04	0.671	0.014	1.96	0.45	7.86	0.13
2048 Oct	Mean	107.80	124.26	0.02	0.01	0.57	0.05	0.10	0.07	0.01	32.07	0.25	0.60	6.81	0.46	1.08	0.14	0.008	0.006	0.21	0.59	11.28	0.032	0.015	0.23	0.02	18.15	0.005	1.35	0.84	0.17	7.05	1.81	16.11	1.68	0.21	114.58	0.03	0.500	0.011	1.67	0.36	5.87	0.10
2048 Nov	Mean	98.28	113.45	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.27	0.28	0.55	7.61	0.45	1.17	0.13	0.008	0.005	0.19	0.55	10.32	0.036	0.016	0.21	0.01	20.28	0.004	1.51	0.74	0.19	6.51	2.01	17.91	1.54	0.19	124.86	0.03	0.455	0.012	1.75	0.36	6.29	0.09
2048 Dec	Mean	100.55	116.26	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.98	0.35	0.57	9.61	0.50	1.43	0.13	0.010	0.005	0.20	0.57	10.60	0.045	0.021	0.22	0.02	25.60	0.005	1.91	0.72	0.23	6.76	2.53	22.52	1.59	0.19	154.07	0.03	0.464	0.014	2.09	0.41	7.75	0.09
2049 Jan	Mean	99.69	115.42	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.76	0.40	0.57	10.93	0.53	1.60	0.13	0.011	0.006	0.20	0.57	10.54	0.051	0.023	0.21	0.02	29.13	0.004	2.17	0.68	0.26	6.78	2.87	25.58	1.58	0.19	173.06	0.03	0.459	0.016	2.30	0.43	8.70	0.09
2049 Feb	Mean	97.29	112.70	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.05	0.41	0.56	11.22	0.53	1.63	0.13	0.011	0.005	0.19	0.56	10.30	0.053	0.024	0.21	0.02	29.91	0.004	2.23	0.66	0.27	6.64	2.94	26.27	1.55	0.18	176.94	0.03	0.448	0.016	2.34	0.44	8.88	0.09
2049 Mar	Mean	94.05	108.95	0.03	0.01	0.83	0.05	0.13	0.11	0.00	28.08	0.39	0.54	10.90	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.95	0.051	0.023	0.20	0.01	29.04	0.004	2.17	0.63	0.26	6.42	2.85	25.51	1.50	0.18	171.72	0.03	0.433	0.015	2.27	0.42	8.62	0.09
2049 Apr	Mean	147.21	169.67	0.03	0.01	0.78	0.06	0.13	0.10	0.01	43.80	0.35	0.81	9.44	0.63	1.54	0.19	0.013	0.008	0.28	0.81	15.40	0.045	0.020	0.31	0.02	25.41	0.007	1.88	1.15	0.23	9.61	2.45	22.32	2.30	0.28	157.13	0.04	0.683	0.016	2.29	0.50	9.61	0.14
2049 May	Mean	2556.74	2932.42	0.21	0.15	4.77	0.87	1.04	0.70	0.14	757.95	1.64	13.64	35.77	7.85	10.72	3.19	0.157	0.119	4.84	13.36	264.51	0.199	0.082	5.45	0.34	102.27	0.116	7.29	22.58	1.14	159.67	9.04	93.47	39.20	4.95	862.98	0.76	11.966	0.141	18.55	5.87	88.35	2.39
2049 Jun	Mean	2306.00	2643.78	0.16	0.14	3.67	0.76	0.85	0.57	0.13	683.42	1.17	12.27	23.13	6.87	8.66	2.87	0.142	0.107	4.35	11.99	238.35	0.140	0.054	4.92	0.31	68.44	0.105	4.70	20.56	0.83	143.48	5.71	62.67	35.30	4.47	641.54	0.68	10.799	0.120	15.20	5.10	77.70	2.16
2049 Jul	Mean	153.89	176.81	0.02	0.01	0.47	0.06	0.09	0.06	0.01	45.68	0.19	0.83	4.72	0.54	0.94	0.19	0.009	0.007	0.29	0.82	15.98	0.023	0.010	0.33	0.02	12.82	0.007	0.95	1.30	0.13	9.77	1.25	11.57	2.38	0.30	90.32	0.05	0.718	0.011	1.55	0.41	5.93	0.14
2049 Aug	Mean	96.95	111.70	0.02	0.01	0.48	0.04	0.08	0.06	0.01	28.84	0.21	0.53	5.57	0.40	0.90	0.12	0.007	0.005	0.19	0.53	10.13	0.026	0.012	0.21	0.01	14.87	0.004	1.11	0.77	0.14	6.31	1.48	13.25	1.51	0.19	95.19	0.03	0.450	0.009	1.41	0.32	4.84	0.09
2049 Sep	Mean	95.65	110.27	0.02	0.01	0.51	0.04	0.09	0.06	0.01	28.46	0.23	0.53	6.12	0.41	0.97	0.12	0.007	0.005	0.18	0.53	10.01	0.029	0.013	0.20	0.01	16.31	0.004	1.21	0.74	0.15	6.26	1.63	14.47	1.50	0.18	102.89	0.03	0.444	0.010	1.49	0.32	5.21	0.09
2049 Oct	Mean	95.05	109.63	0.02	0.01	0.54	0.04	0.09	0.07	0.01	28.29	0.24	0.53	6.52	0.42	1.02	0.12	0.007	0.005	0.18	0.53	9.96	0.031	0.014	0.20	0.01	17.37	0.004	1.29	0.73	0.16	6.24	1.73	15.39	1.49	0.18	108.59	0.03	0.441	0.010	1.56	0.33	5.48	0.09
2049 Nov	Mean	98.03	113.14	0.02	0.01	0.61	0.05	0.10	0.08	0.01	29.19	0.28	0.55	7.51	0.45	1.15	0.13	0.008	0.005	0.19	0.55	10.29	0.035	0.016	0.21	0.01	20.01	0.004	1.49	0.74	0.18	6.48	1.98	17.70	1.54	0.19	123.33	0.03	0.454	0.012	1.73	0.36	6.20	0.09
2049 Dec	Mean	100.58	116.28	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.99	0.35	0.57	9.51	0.50	1.41	0.13	0.010	0.005	0.20	0.57	10.60	0.045	0.020	0.22	0.02	25.34	0.005	1.89	0.72	0.23	6.75	2.50	22.32	1.59	0.19	152.62	0.03	0.464	0.014	2.07	0.41	7.67	0.09
2050 Jan	Mean	99.72	115.44	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.76	0.39	0.57	10.89	0.53	1.59	0.13	0.011	0.006	0.20	0.57	10.54	0.051	0.023	0.21	0.02	29.03	0.004	2.17	0.68	0.26	6.77	2.85	25.53	1.58	0.19	172.52	0.03	0.459	0.016	2.29	0.43	8.66	0.09
2050 Feb	Mean	97.29	112.70	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.05	0.41	0.56	11.23	0.53	1.63	0.13	0.011	0.005	0.19	0.56	10.30	0.052	0.024	0.21	0.02	29.93	0.004	2.24	0.66	0.27	6.64	2.93	26.31	1.55	0.18	177.02	0.03	0.448	0.016	2.34	0.44	8.88	0.09
2050 Mar	Mean	94.01	108.91	0.03	0.01	0.83	0.05	0.13																																				

Table A-2

Monthly WQ Report for Scenario A.1.b - Interim/Ultimate WRD Sediment Pond, No Climate Change, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	104.95	120.69	0.02	0.01	0.39	0.04	0.07	0.05	0.01	31.17	0.16	0.57	4.20	0.39	0.74	0.13	0.006	0.005	0.20	0.56	10.92	0.020	0.009	0.22	0.01	11.25	0.005	0.85	0.87	0.11	6.72	1.12	10.23	1.63	0.20	76.46	0.03	0.489	0.008	1.22	0.30	4.01	0.10
2051 Aug	Mean	120.46	138.70	0.02	0.01	0.55	0.05	0.09	0.07	0.01	35.81	0.23	0.66	6.25	0.48	1.04	0.15	0.008	0.006	0.23	0.66	12.57	0.030	0.014	0.26	0.02	16.70	0.005	1.25	0.96	0.16	7.80	1.66	14.93	1.87	0.23	108.40	0.04	0.560	0.011	1.64	0.38	5.67	0.11
2051 Sep	Mean	102.73	118.40	0.02	0.01	0.53	0.04	0.09	0.07	0.01	30.56	0.23	0.57	6.30	0.43	1.01	0.13	0.007	0.005	0.20	0.56	10.75	0.030	0.014	0.22	0.01	16.80	0.005	1.25	0.80	0.16	6.71	1.67	14.94	1.60	0.20	106.49	0.03	0.477	0.010	1.56	0.34	5.45	0.10
2051 Oct	Mean	95.08	109.67	0.02	0.01	0.55	0.04	0.09	0.07	0.01	28.30	0.24	0.53	6.62	0.42	1.03	0.12	0.007	0.005	0.18	0.53	9.96	0.031	0.014	0.20	0.01	17.65	0.004	1.32	0.73	0.16	6.25	1.76	15.65	1.49	0.18	110.08	0.03	0.441	0.010	1.57	0.33	5.54	0.09
2051 Nov	Mean	98.10	113.26	0.02	0.01	0.63	0.05	0.10	0.08	0.01	29.22	0.28	0.55	7.77	0.45	1.19	0.13	0.008	0.005	0.19	0.55	10.30	0.037	0.017	0.21	0.01	20.72	0.004	1.55	0.73	0.19	6.50	2.05	18.33	1.54	0.19	127.19	0.03	0.454	0.012	1.78	0.36	6.38	0.09
2051 Dec	Mean	100.39	116.08	0.03	0.01	0.76	0.05	0.12	0.10	0.01	29.94	0.35	0.57	9.68	0.51	1.43	0.13	0.010	0.005	0.20	0.57	10.58	0.045	0.021	0.21	0.02	25.82	0.005	1.93	0.71	0.23	6.75	2.54	22.76	1.59	0.19	155.16	0.03	0.463	0.014	2.10	0.41	7.78	0.09
2052 Jan	Mean	99.55	115.26	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.71	0.40	0.57	11.00	0.53	1.60	0.13	0.011	0.006	0.20	0.57	10.52	0.051	0.023	0.21	0.02	29.33	0.004	2.20	0.68	0.26	6.77	2.87	25.83	1.58	0.19	174.07	0.03	0.458	0.016	2.31	0.44	8.71	0.09
2052 Feb	Mean	97.17	112.56	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.01	0.41	0.55	11.30	0.53	1.63	0.13	0.011	0.005	0.19	0.56	10.28	0.053	0.024	0.21	0.02	30.15	0.004	2.26	0.65	0.27	6.63	2.95	26.55	1.55	0.18	178.13	0.03	0.447	0.016	2.35	0.44	8.91	0.09
2052 Mar	Mean	93.89	108.76	0.03	0.01	0.83	0.05	0.13	0.11	0.00	28.03	0.40	0.54	10.96	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.94	0.051	0.023	0.20	0.01	29.25	0.004	2.20	0.63	0.26	6.41	2.86	25.77	1.49	0.18	172.76	0.03	0.432	0.016	2.28	0.42	8.63	0.09
2052 Apr	Mean	150.26	173.21	0.03	0.01	0.81	0.07	0.13	0.10	0.01	44.71	0.36	0.83	9.80	0.64	1.55	0.19	0.012	0.008	0.29	0.83	15.72	0.046	0.021	0.32	0.02	26.27	0.007	1.97	1.17	0.24	9.82	2.56	23.39	2.35	0.29	163.86	0.05	0.697	0.016	2.37	0.51	8.87	0.14
2052 May	Mean	2285.50	2621.56	0.19	0.14	4.42	0.78	0.95	0.65	0.13	677.59	1.54	12.20	34.29	7.07	9.83	2.85	0.140	0.107	4.32	11.95	236.49	0.188	0.078	4.88	0.31	97.57	0.104	7.03	20.15	1.07	142.85	8.67	89.30	35.05	4.42	806.12	0.68	10.695	0.128	16.97	5.29	79.65	2.14
2052 Jun	Mean	1721.84	1974.14	0.12	0.10	2.80	0.57	0.64	0.43	0.10	510.31	0.90	9.16	18.09	5.15	6.51	2.14	0.104	0.080	3.25	8.96	177.99	0.107	0.042	3.67	0.23	53.18	0.078	3.71	15.34	0.63	107.18	4.48	49.05	26.36	3.34	492.46	0.51	8.063	0.090	11.49	3.82	57.19	1.61
2052 Jul	Mean	144.15	165.64	0.02	0.01	0.46	0.05	0.08	0.06	0.01	42.79	0.18	0.78	4.70	0.51	0.91	0.18	0.009	0.007	0.27	0.77	14.98	0.023	0.010	0.31	0.02	12.74	0.007	0.95	1.22	0.13	9.16	1.23	11.50	2.23	0.28	88.54	0.04	0.672	0.010	1.50	0.39	5.75	0.13
2052 Aug	Mean	112.64	129.72	0.02	0.01	0.53	0.05	0.09	0.07	0.01	33.49	0.23	0.62	6.09	0.45	1.00	0.14	0.008	0.006	0.22	0.61	11.76	0.029	0.013	0.24	0.02	16.30	0.005	1.22	0.90	0.15	7.30	1.61	14.58	1.75	0.22	104.97	0.03	0.524	0.010	1.57	0.36	5.51	0.10
2052 Sep	Mean	109.23	125.88	0.02	0.01	0.56	0.05	0.09	0.07	0.01	32.49	0.25	0.60	6.64	0.46	1.06	0.14	0.008	0.006	0.21	0.60	11.42	0.031	0.014	0.23	0.02	17.72	0.005	1.33	0.86	0.17	7.12	1.76	15.80	1.70	0.21	112.39	0.03	0.507	0.011	1.65	0.36	5.73	0.10
2052 Oct	Mean	95.25	109.86	0.02	0.01	0.55	0.04	0.09	0.07	0.01	28.35	0.24	0.53	6.63	0.42	1.03	0.12	0.007	0.005	0.18	0.53	9.98	0.031	0.014	0.20	0.01	17.68	0.004	1.32	0.73	0.16	6.26	1.75	15.72	1.49	0.18	110.25	0.03	0.442	0.010	1.57	0.33	5.54	0.09
2052 Nov	Mean	98.03	113.18	0.02	0.01	0.63	0.05	0.10	0.08	0.01	29.20	0.29	0.55	7.84	0.46	1.19	0.13	0.008	0.005	0.19	0.55	10.29	0.037	0.017	0.21	0.01	20.92	0.004	1.57	0.73	0.19	6.50	2.06	18.55	1.54	0.19	128.24	0.03	0.454	0.012	1.79	0.37	6.43	0.09
2052 Dec	Mean	100.27	115.94	0.03	0.01	0.76	0.05	0.12	0.10	0.01	29.90	0.35	0.57	9.76	0.51	1.44	0.13	0.010	0.005	0.20	0.57	10.57	0.046	0.021	0.21	0.02	26.05	0.005	1.96	0.71	0.23	6.74	2.55	23.02	1.59	0.19	156.39	0.03	0.463	0.014	2.11	0.41	7.82	0.09
2053 Jan	Mean	99.49	115.19	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.70	0.40	0.57	11.08	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.52	0.052	0.024	0.21	0.02	29.57	0.004	2.22	0.68	0.26	6.76	2.88	26.09	1.58	0.19	175.28	0.03	0.458	0.016	2.32	0.44	8.75	0.09
2053 Feb	Mean	97.12	112.51	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.00	0.41	0.55	11.37	0.53	1.63	0.13	0.011	0.005	0.19	0.56	10.28	0.053	0.024	0.21	0.02	30.35	0.004	2.28	0.65	0.27	6.63	2.95	26.79	1.55	0.18	179.18	0.03	0.447	0.016	2.36	0.44	8.93	0.09
2053 Mar	Mean	93.80	108.65	0.03	0.01	0.83	0.05	0.13	0.11	0.00	28.01	0.40	0.54	10.99	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.93	0.051	0.023	0.20	0.01	29.34	0.004	2.21	0.63	0.26	6.40	2.85	25.90	1.49	0.18	173.17	0.03	0.432	0.016	2.28	0.42	8.63	0.09
2053 Apr	Mean	88.97	102.87	0.03	0.01	0.67	0.04	0.11	0.09	0.00	26.53	0.31	0.50	8.63	0.45	1.27	0.12	0.009	0.005	0.17	0.51	9.37	0.040	0.018	0.19	0.01	23.05	0.004	1.74	0.64	0.21	5.97	2.24	20.43	1.41	0.17	138.26	0.03	0.411	0.013	1.87	0.36	6.93	0.08
2053 May	Mean	2465.63	2827.97	0.20	0.16	4.66	0.84	1.01	0.71	0.14	730.95	1.65	13.16	35.95	7.60	10.71	3.08	0.161	0.115	4.66	12.88	255.09	0.202	0.081	5.26	0.33	103.27	0.112	7.29	21.77	1.13	154.01	8.93	93.13	37.81	4.77	847.56	0.73	11.539	0.142	18.08	5.68	91.93	2.31
2053 Jun	Mean	1733.55	1987.54	0.12	0.10	2.80	0.58	0.64	0.43	0.10	513.78	0.90	9.22	18.03	5.18	6.54	2.16	0.105	0.080	3.27	9.02	179.19	0.107	0.042	3.70	0.23	53.16	0.079	3.71	15.45	0.63	107.89	4.44	49.05	26.54	3.36	492.81	0.51	8.118	0.090	11.54	3.84	57.88	1.62
2053 Jul	Mean	98.81	113.68	0.02	0.01	0.39	0.04	0.07	0.05	0.01	29.36	0.16	0.54	4.35	0.37	0.74	0.13	0.006	0.005	0.19	0.53	10.29	0.021	0.010	0.21	0.01	11.67	0.004	0.89	0.81	0.11	6.35	1.15	10.62	1.53	0.19	77.95	0.03	0.460	0.008	1.22	0.29	3.97	0.09
2053 Aug	Mean	96.53	111.23	0.02	0.01	0.49	0.04	0.08	0.06	0.01	28.71	0.22	0.53	5.84	0.40	0.93	0.12	0.007	0.005	0.19	0.53	10.09	0.028	0.013	0.21	0.01	15.61	0.004	1.18	0.76	0.15	6.29	1.54	13.97	1.51	0.18	99.11	0.03	0.448	0.010	1.45	0.32	4.99	0.09
2053 Sep	Mean	153.83	177.14	0.03	0.01	0.71	0.06</																																					

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2020 Jan	Mean	122.34	146.22	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.37	0.01	0.85	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.88	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.64	0.03	1.62	2.17	0.21	30.55	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.53	150.02	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.34	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.28	0.95	14.24	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.91	0.04	1.76	2.23	0.22	31.68	0.04	0.546	0.003	0.84	0.29	2.33	0.11
2020 Mar	Mean	116.68	139.43	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.64	0.01	0.81	0.07	0.38	0.58	0.18	0.006	0.010	0.26	0.88	13.23	0.000	0.001	0.25	0.03	0.38	0.005	0.10	0.01	0.03	10.13	0.04	1.73	2.07	0.20	29.75	0.04	0.507	0.003	0.78	0.27	2.18	0.10
2020 Apr	Mean	109.05	130.31	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.31	0.01	0.75	0.07	0.36	0.54	0.17	0.006	0.009	0.24	0.83	12.36	0.000	0.001	0.24	0.02	0.37	0.005	0.09	0.01	0.03	9.47	0.03	1.61	1.94	0.19	27.80	0.04	0.474	0.003	0.73	0.25	2.09	0.09
2020 May	Mean	112.94	134.96	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.50	0.01	0.78	0.09	0.37	0.56	0.18	0.006	0.010	0.25	0.86	12.81	0.000	0.001	0.24	0.03	0.43	0.005	0.10	0.01	0.03	9.81	0.04	1.73	2.01	0.20	29.02	0.04	0.491	0.003	0.76	0.26	2.19	0.10
2020 Jun	Mean	114.57	136.89	0.01	0.01	0.13	0.05	0.04	0.01	0.01	34.99	0.01	0.79	0.13	0.37	0.57	0.18	0.006	0.010	0.25	0.87	12.99	0.000	0.001	0.25	0.03	0.54	0.005	0.10	0.01	0.03	9.94	0.04	1.92	2.03	0.20	30.00	0.04	0.498	0.003	0.77	0.27	2.20	0.10
2020 Jul	Mean	115.08	137.48	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.14	0.01	0.79	0.18	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.04	0.001	0.001	0.25	0.03	0.65	0.005	0.10	0.01	0.03	9.97	0.05	2.09	2.04	0.20	30.71	0.04	0.501	0.003	0.78	0.27	2.21	0.10
2020 Aug	Mean	115.29	137.71	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.20	0.02	0.79	0.20	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.06	0.001	0.001	0.25	0.03	0.70	0.005	0.10	0.02	0.03	9.98	0.05	2.17	2.05	0.20	31.01	0.04	0.502	0.003	0.79	0.27	2.20	0.10
2020 Sep	Mean	115.02	137.37	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.12	0.02	0.79	0.21	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.03	0.001	0.001	0.25	0.03	0.74	0.005	0.10	0.02	0.03	9.95	0.05	2.21	2.04	0.20	31.09	0.04	0.501	0.003	0.78	0.27	2.19	0.10
2020 Oct	Mean	115.10	137.44	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.14	0.02	0.79	0.24	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.03	0.001	0.001	0.25	0.03	0.80	0.005	0.10	0.02	0.03	9.95	0.05	2.31	2.04	0.20	31.43	0.04	0.501	0.003	0.79	0.27	2.18	0.10
2020 Nov	Mean	118.00	140.90	0.01	0.01	0.14	0.05	0.04	0.02	0.01	36.02	0.02	0.81	0.33	0.39	0.59	0.18	0.006	0.010	0.26	0.89	13.36	0.001	0.001	0.25	0.03	1.05	0.005	0.10	0.03	0.03	10.19	0.06	2.69	2.09	0.21	33.39	0.04	0.514	0.003	0.82	0.28	2.26	0.10
2020 Dec	Mean	123.57	147.51	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.71	0.02	0.85	0.57	0.41	0.62	0.19	0.007	0.011	0.27	0.93	13.98	0.001	0.002	0.27	0.03	1.66	0.005	0.11	0.03	0.04	10.65	0.09	3.63	2.19	0.22	37.87	0.04	0.538	0.004	0.88	0.29	2.41	0.11
2021 Jan	Mean	126.38	150.72	0.01	0.01	0.16	0.05	0.04	0.03	0.01	38.54	0.03	0.86	1.03	0.42	0.65	0.20	0.007	0.011	0.28	0.94	14.27	0.002	0.002	0.27	0.03	2.82	0.006	0.11	0.06	0.04	10.82	0.13	5.32	2.23	0.22	44.38	0.04	0.552	0.004	0.95	0.30	2.55	0.11
2021 Feb	Mean	122.37	145.81	0.01	0.01	0.17	0.05	0.04	0.03	0.01	37.30	0.04	0.83	1.43	0.41	0.64	0.19	0.007	0.010	0.27	0.91	13.79	0.003	0.003	0.26	0.03	3.83	0.005	0.11	0.08	0.04	10.41	0.17	6.72	2.15	0.21	48.54	0.04	0.535	0.004	0.97	0.29	2.56	0.11
2021 Mar	Mean	112.82	134.50	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.40	0.03	0.77	0.97	0.37	0.58	0.17	0.006	0.010	0.25	0.84	12.73	0.002	0.002	0.24	0.03	2.66	0.005	0.10	0.06	0.04	9.64	0.13	4.93	1.99	0.20	40.23	0.04	0.493	0.004	0.85	0.27	2.32	0.10
2021 Apr	Mean	107.38	128.22	0.01	0.01	0.13	0.05	0.03	0.02	0.00	32.78	0.02	0.74	0.38	0.35	0.55	0.17	0.006	0.009	0.23	0.81	12.16	0.001	0.001	0.23	0.02	1.17	0.005	0.09	0.03	0.03	9.28	0.06	2.68	1.90	0.19	31.26	0.04	0.468	0.003	0.75	0.25	2.26	0.09
2021 May	Mean	111.76	133.51	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.13	0.02	0.77	0.33	0.37	0.57	0.17	0.006	0.010	0.24	0.85	12.66	0.001	0.001	0.24	0.03	1.05	0.005	0.10	0.02	0.03	9.69	0.06	2.54	1.98	0.19	31.71	0.04	0.486	0.003	0.78	0.26	2.39	0.10
2021 Jun	Mean	113.88	135.97	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.76	0.02	0.78	0.53	0.37	0.58	0.18	0.006	0.010	0.25	0.86	12.89	0.001	0.002	0.25	0.03	1.54	0.005	0.10	0.03	0.03	9.83	0.08	3.31	2.02	0.20	34.82	0.04	0.496	0.003	0.81	0.27	2.34	0.10
2021 Jul	Mean	114.31	136.40	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.88	0.03	0.78	0.77	0.38	0.59	0.18	0.006	0.010	0.25	0.86	12.92	0.002	0.002	0.25	0.03	2.14	0.005	0.10	0.04	0.03	9.83	0.11	4.20	2.02	0.20	38.06	0.04	0.499	0.004	0.84	0.27	2.33	0.10
2021 Aug	Mean	114.37	136.44	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.89	0.03	0.78	0.91	0.38	0.59	0.18	0.006	0.010	0.25	0.86	12.92	0.002	0.002	0.25	0.03	2.50	0.005	0.10	0.05	0.04	9.81	0.12	4.73	2.02	0.20	39.91	0.04	0.499	0.004	0.86	0.27	2.34	0.10
2021 Sep	Mean	113.96	135.92	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.76	0.03	0.78	1.04	0.38	0.59	0.18	0.006	0.010	0.25	0.85	12.87	0.002	0.002	0.25	0.03	2.82	0.005	0.10	0.05	0.04	9.76	0.13	5.18	2.01	0.20	41.45	0.04	0.497	0.004	0.87	0.27	2.36	0.10
2021 Oct	Mean	113.91	135.84	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.74	0.03	0.78	1.26	0.38	0.60	0.18	0.006	0.010	0.25	0.85	12.86	0.002	0.003	0.25	0.03	3.39	0.005	0.10	0.06	0.04	9.75	0.15	6.00	2.01	0.20	44.43	0.04	0.497	0.004	0.90	0.27	2.41	0.10
2021 Nov	Mean	116.53	138.97	0.01	0.01	0.17	0.05	0.04	0.04	0.01	35.54	0.04	0.80	1.72	0.39	0.64	0.18	0.006	0.010	0.25	0.87	13.15	0.003	0.003	0.25	0.03	4.57	0.005	0.10	0.06	0.04	9.98	0.20	7.72	2.06	0.20	51.23	0.04	0.509	0.004	0.97	0.28	2.59	0.10
2021 Dec	Mean	121.69	145.08	0.01	0.01	0.20	0.05	0.05	0.06	0.01	37.10	0.06	0.83	2.78	0.42	0.71	0.19	0.007	0.010	0.26	0.91	13.73	0.005	0.005	0.26	0.03	7.24	0.005	0.11	0.07	0.05	10.39	0.31	11.61	2.14	0.21	66.42	0.04	0.532	0.005	1.13	0.30	2.94	0.11
2022 Jan	Mean	122.79	146.20	0.01	0.01	0.25	0.05	0.05	0.05	0.01	37.40	0.09	0.83	3.97	0.43	0.78	0.19	0.007	0.010	0.27	0.90	13.81	0.008	0.006	0.26	0.03	10.42	0.005	0.12	0.10	0.07	10.39	0.47	10.00	2.15	0.22	65.36	0.04	0.538	0.005	1.20	0.32	3.36	0.11
2022 Feb	Mean	117.86	140.17	0.01	0.01	0.27	0.05	0.06	0.04	0.01	35.87	0.11	0.79	4.68	0.43	0.80	0.18	0.007	0.010	0.25	0.86	13.23	0.010	0.006	0.25	0.03	12.41	0.005	0.12	0.13	0.08	9.89	0.60	5.68	2.06	0.21	54.04	0.04	0.517	0.006	1.16	0.31	3.58	0.10
2022 Mar	Mean	109.34	130.15	0.01	0.01	0.24	0.05	0.05	0.03	0.00	33.30	0.09	0.74	3.66	0.39	0.72	0.17	0.007	0.009																									

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2023 Jul	Mean	108.83	129.64	0.01	0.01	0.29	0.05	0.06	0.04	0.00	33.16	0.13	0.74	6.79	0.41	0.84	0.17	0.008	0.009	0.24	0.81	12.26	0.013	0.009	0.23	0.02	17.40	0.005	0.11	0.08	0.08	9.24	0.71	5.28	1.91	0.19	54.73	0.04	0.476	0.006	1.34	0.30	3.92	0.10
2023 Aug	Mean	108.16	128.77	0.01	0.01	0.32	0.05	0.06	0.04	0.00	32.95	0.15	0.73	7.98	0.42	0.88	0.17	0.008	0.009	0.23	0.80	12.16	0.015	0.011	0.23	0.02	20.41	0.005	0.12	0.10	0.09	9.15	0.82	5.95	1.90	0.19	59.43	0.04	0.474	0.007	1.45	0.31	4.18	0.09
2023 Sep	Mean	107.43	127.86	0.01	0.01	0.34	0.05	0.06	0.04	0.00	32.72	0.17	0.72	8.65	0.42	0.91	0.16	0.008	0.009	0.23	0.79	12.07	0.016	0.012	0.23	0.02	22.10	0.005	0.12	0.10	0.10	9.06	0.89	6.32	1.88	0.19	61.99	0.04	0.471	0.007	1.50	0.31	4.30	0.09
2023 Oct	Mean	107.17	127.51	0.01	0.01	0.35	0.05	0.07	0.05	0.00	32.63	0.18	0.72	9.19	0.42	0.93	0.16	0.008	0.009	0.23	0.79	12.04	0.017	0.012	0.23	0.02	23.45	0.005	0.12	0.11	0.10	9.03	0.94	6.62	1.88	0.19	64.11	0.04	0.470	0.007	1.55	0.32	4.42	0.09
2023 Nov	Mean	109.42	130.21	0.01	0.01	0.37	0.05	0.07	0.05	0.00	33.32	0.18	0.74	9.64	0.43	0.96	0.17	0.008	0.009	0.24	0.80	12.29	0.018	0.013	0.24	0.02	24.61	0.005	0.12	0.11	0.11	9.22	0.99	6.91	1.92	0.19	66.58	0.04	0.480	0.007	1.61	0.33	4.61	0.10
2023 Dec	Mean	114.02	135.61	0.02	0.01	0.42	0.06	0.08	0.06	0.01	34.71	0.22	0.77	11.54	0.46	1.07	0.17	0.009	0.009	0.25	0.83	12.80	0.021	0.015	0.25	0.02	29.43	0.005	0.13	0.12	0.13	9.58	1.18	8.06	1.99	0.20	75.55	0.04	0.500	0.008	1.82	0.35	5.17	0.10
2024 Jan	Mean	113.62	134.91	0.02	0.01	0.50	0.06	0.09	0.07	0.01	34.54	0.28	0.76	14.68	0.49	1.20	0.17	0.010	0.009	0.24	0.82	12.70	0.027	0.018	0.24	0.02	37.38	0.005	0.14	0.16	0.15	9.43	1.50	9.14	1.97	0.20	85.82	0.04	0.500	0.010	2.02	0.38	5.93	0.10
2024 Feb	Mean	105.73	125.38	0.02	0.01	0.51	0.05	0.09	0.07	0.00	32.11	0.29	0.70	15.34	0.47	1.18	0.16	0.009	0.008	0.23	0.75	11.79	0.028	0.018	0.23	0.02	39.04	0.005	0.13	0.18	0.16	8.69	1.56	8.68	1.83	0.19	83.94	0.03	0.467	0.010	1.95	0.36	5.96	0.09
2024 Mar	Mean	103.19	122.68	0.01	0.01	0.37	0.05	0.07	0.05	0.00	31.40	0.19	0.69	10.16	0.42	0.96	0.16	0.008	0.008	0.22	0.75	11.57	0.019	0.012	0.22	0.02	25.94	0.005	0.12	0.13	0.11	8.64	1.04	6.09	1.80	0.18	63.48	0.03	0.453	0.008	1.50	0.32	4.81	0.09
2024 Apr	Mean	100.02	119.32	0.01	0.01	0.24	0.05	0.05	0.03	0.00	30.51	0.11	0.68	5.04	0.37	0.75	0.16	0.008	0.009	0.22	0.75	11.30	0.010	0.006	0.22	0.02	13.02	0.004	0.10	0.06	0.07	8.58	0.52	3.64	1.77	0.17	43.67	0.03	0.436	0.006	1.07	0.27	3.98	0.09
2024 May	Mean	103.53	123.60	0.01	0.01	0.22	0.05	0.05	0.03	0.00	31.60	0.09	0.71	4.14	0.37	0.74	0.16	0.008	0.009	0.23	0.78	11.72	0.008	0.005	0.22	0.02	10.77	0.005	0.10	0.05	0.06	8.93	0.43	3.27	1.83	0.18	41.23	0.03	0.451	0.005	1.02	0.27	3.93	0.09
2024 Jun	Mean	107.29	127.90	0.01	0.01	0.28	0.05	0.06	0.03	0.00	32.71	0.13	0.73	6.29	0.40	0.82	0.17	0.008	0.009	0.23	0.80	12.10	0.012	0.008	0.23	0.02	16.17	0.005	0.11	0.07	0.08	9.16	0.65	4.33	1.89	0.19	50.16	0.04	0.469	0.006	1.22	0.30	4.10	0.09
2024 Jul	Mean	106.65	126.93	0.01	0.01	0.35	0.05	0.07	0.04	0.00	32.48	0.17	0.72	9.00	0.42	0.93	0.16	0.008	0.009	0.23	0.78	11.99	0.017	0.011	0.23	0.02	22.99	0.005	0.12	0.10	0.10	9.00	0.92	5.59	1.87	0.19	60.10	0.04	0.467	0.007	1.43	0.32	4.54	0.09
2024 Aug	Mean	105.57	125.54	0.01	0.01	0.39	0.05	0.07	0.05	0.00	32.13	0.20	0.71	10.60	0.43	0.99	0.16	0.008	0.009	0.23	0.77	11.84	0.019	0.012	0.23	0.02	27.05	0.005	0.12	0.12	0.12	8.86	1.09	6.33	1.84	0.19	65.84	0.03	0.463	0.008	1.55	0.33	4.87	0.09
2024 Sep	Mean	104.60	124.34	0.02	0.01	0.41	0.05	0.07	0.05	0.00	31.83	0.22	0.70	11.36	0.43	1.01	0.16	0.008	0.009	0.23	0.76	11.72	0.021	0.013	0.23	0.02	28.95	0.005	0.12	0.13	0.12	8.75	1.16	6.67	1.83	0.18	68.43	0.03	0.459	0.008	1.61	0.33	4.99	0.09
2024 Oct	Mean	104.18	123.82	0.02	0.01	0.42	0.05	0.07	0.05	0.00	31.69	0.22	0.70	11.80	0.43	1.03	0.16	0.009	0.008	0.22	0.76	11.67	0.021	0.014	0.22	0.02	30.08	0.005	0.12	0.13	0.13	8.70	1.21	6.88	1.82	0.18	70.01	0.03	0.458	0.008	1.64	0.33	5.09	0.09
2024 Nov	Mean	106.22	126.27	0.02	0.01	0.43	0.05	0.08	0.05	0.00	32.32	0.23	0.71	12.26	0.45	1.06	0.16	0.009	0.009	0.23	0.77	11.91	0.022	0.014	0.23	0.02	31.24	0.005	0.13	0.13	0.13	8.89	1.25	7.12	1.85	0.19	72.28	0.03	0.467	0.009	1.69	0.34	5.29	0.09
2024 Dec	Mean	108.03	128.31	0.02	0.01	0.50	0.05	0.09	0.06	0.00	32.85	0.28	0.72	14.93	0.47	1.19	0.16	0.010	0.009	0.23	0.78	12.09	0.027	0.017	0.23	0.02	38.02	0.005	0.14	0.15	0.15	8.98	1.52	8.39	1.88	0.19	82.79	0.04	0.475	0.010	1.92	0.37	5.98	0.10
2025 Jan	Mean	111.56	132.75	0.02	0.01	0.47	0.06	0.08	0.05	0.01	33.97	0.25	0.75	13.23	0.47	1.15	0.17	0.009	0.009	0.24	0.82	12.53	0.024	0.014	0.24	0.02	34.36	0.005	0.14	0.11	0.14	9.40	1.38	6.96	1.95	0.20	75.71	0.04	0.489	0.009	1.74	0.36	5.63	0.10
2025 Feb	Mean	112.23	133.61	0.02	0.01	0.46	0.06	0.08	0.05	0.01	34.18	0.25	0.76	12.70	0.47	1.14	0.17	0.009	0.009	0.24	0.83	12.62	0.024	0.014	0.24	0.02	33.21	0.005	0.14	0.10	0.14	9.49	1.33	6.51	1.97	0.20	73.40	0.04	0.492	0.009	1.68	0.36	5.52	0.10
2025 Mar	Mean	109.84	130.80	0.02	0.01	0.44	0.05	0.08	0.05	0.00	33.46	0.23	0.74	11.85	0.46	1.09	0.17	0.009	0.009	0.24	0.81	12.36	0.022	0.013	0.24	0.02	31.08	0.005	0.13	0.09	0.13	9.31	1.25	6.08	1.93	0.19	69.63	0.04	0.481	0.009	1.59	0.35	5.25	0.10
2025 Apr	Mean	257.98	307.96	0.02	0.02	0.62	0.12	0.13	0.07	0.01	78.73	0.27	1.77	12.78	0.95	1.91	0.40	0.018	0.022	0.56	1.94	29.18	0.025	0.014	0.56	0.06	33.94	0.011	0.26	0.09	0.18	22.24	1.37	8.33	4.57	0.45	109.52	0.09	1.124	0.014	2.64	0.70	9.09	0.22
2025 May	Mean	3450.26	4126.95	0.20	0.25	5.13	1.54	1.27	0.55	0.15	1054.57	1.58	23.94	53.83	11.74	21.04	5.42	0.234	0.303	7.59	26.36	392.03	0.126	0.076	7.45	0.80	151.36	0.150	3.19	0.34	1.36	301.62	5.99	65.43	61.50	5.99	1045.71	1.15	14.980	0.140	26.71	8.48	104.45	3.00
2025 Jun	Mean	2193.09	2622.98	0.12	0.15	3.06	0.98	0.78	0.32	0.10	670.27	0.84	15.21	26.68	7.39	12.89	3.44	0.144	0.192	4.82	16.74	249.14	0.065	0.041	4.74	0.51	76.12	0.095	2.00	0.17	0.79	191.60	3.07	38.71	39.08	3.81	638.09	0.73	9.523	0.084	16.43	5.33	62.13	1.90
2025 Jul	Mean	132.12	157.74	0.01	0.01	0.28	0.06	0.06	0.03	0.01	40.33	0.11	0.91	5.25	0.48	0.90	0.21	0.009	0.011	0.29	1.00	14.95	0.010	0.006	0.29	0.03	13.96	0.006	0.13	0.04	0.08	11.40	0.57	3.77	2.34	0.23	51.57	0.04	0.576	0.006	1.26	0.35	4.04	0.12
2025 Aug	Mean	142.53	170.11	0.01	0.01	0.35	0.07	0.07	0.04	0.01	43.49	0.15	0.98	7.36	0.53	1.05	0.22	0.010	0.012	0.31	1.07	16.12	0.014	0.008	0.31	0.03	19.48	0.006	0.15	0.05	0.10	12.27	0.79	4.73	2.52	0.25	61.69	0.05	0.621	0.008	1.48	0.39	4.80	0.12
2025 Sep	Mean	156.58	186.95	0.02	0.01	0.40	0.07	0.08	0.04	0.01	47.79	0.18	1.08</																															

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	110.99	131.91	0.02	0.01	0.60	0.06	0.10	0.09	0.01	33.76	0.34	0.74	17.04	0.51	1.37	0.17	0.011	0.009	0.24	0.81	12.44	0.033	0.022	0.24	0.02	43.97	0.005	0.15	0.14	0.18	9.27	1.86	13.23	1.94	0.20	107.71	0.04	0.488	0.011	2.49	0.40	6.88	0.10
2027 Feb	Mean	108.56	128.96	0.02	0.01	0.60	0.06	0.10	0.07	0.00	33.02	0.35	0.72	16.11	0.51	1.37	0.16	0.010	0.009	0.23	0.79	12.15	0.034	0.019	0.23	0.02	42.19	0.005	0.15	0.14	0.19	9.04	1.89	9.41	1.89	0.19	94.67	0.04	0.477	0.012	2.11	0.40	6.91	0.10
2027 Mar	Mean	148.71	177.15	0.02	0.01	0.66	0.08	0.11	0.08	0.01	45.32	0.37	1.01	16.15	0.64	1.65	0.23	0.014	0.012	0.32	1.10	16.75	0.035	0.018	0.32	0.03	42.86	0.006	0.19	0.15	0.20	12.63	1.93	8.65	2.61	0.26	101.11	0.05	0.651	0.014	2.26	0.50	8.59	0.13
2027 Apr	Mean	144.01	171.77	0.02	0.01	0.55	0.07	0.10	0.06	0.01	43.93	0.30	0.98	12.67	0.60	1.46	0.22	0.013	0.012	0.31	1.08	16.26	0.028	0.014	0.31	0.03	33.85	0.006	0.17	0.12	0.17	12.34	1.52	6.74	2.54	0.25	84.85	0.05	0.629	0.012	1.92	0.45	7.70	0.13
2027 May	Mean	2387.93	2861.24	0.15	0.20	3.99	1.09	0.92	0.49	0.10	730.80	1.70	16.73	48.47	8.30	16.75	3.78	0.189	0.214	5.28	18.49	272.35	0.133	0.060	5.16	0.56	141.27	0.104	2.28	0.34	1.09	211.27	5.35	48.04	42.82	4.12	762.66	0.80	10.333	0.118	19.18	6.08	92.16	2.07
2027 Jun	Mean	2910.55	3488.68	0.17	0.24	4.55	1.33	1.08	0.57	0.13	890.97	1.89	20.43	49.28	10.03	20.07	4.62	0.230	0.261	6.45	22.60	332.21	0.143	0.062	6.29	0.69	147.09	0.126	2.75	0.31	1.23	258.14	5.26	54.77	52.25	5.02	890.05	0.98	12.586	0.140	22.60	7.32	111.58	2.52
2027 Jul	Mean	122.58	146.23	0.01	0.01	0.34	0.06	0.07	0.03	0.01	37.39	0.16	0.84	6.50	0.46	0.97	0.19	0.009	0.010	0.27	0.92	13.85	0.014	0.008	0.26	0.03	17.36	0.005	0.13	0.06	0.10	10.52	0.81	4.02	2.17	0.21	55.63	0.04	0.535	0.007	1.30	0.35	4.51	0.11
2027 Aug	Mean	145.25	173.37	0.02	0.01	0.45	0.07	0.09	0.05	0.01	44.33	0.23	1.00	9.47	0.57	1.28	0.23	0.012	0.012	0.32	1.09	16.43	0.021	0.011	0.31	0.03	25.39	0.006	0.16	0.08	0.13	12.51	1.16	5.40	2.57	0.25	72.54	0.05	0.633	0.010	1.67	0.43	6.44	0.13
2027 Sep	Mean	105.93	126.17	0.01	0.01	0.40	0.05	0.07	0.04	0.00	32.28	0.21	0.72	9.06	0.44	1.01	0.16	0.008	0.009	0.23	0.78	11.93	0.020	0.010	0.23	0.02	24.04	0.005	0.12	0.08	0.12	8.99	1.12	4.76	1.86	0.19	61.59	0.03	0.464	0.008	1.39	0.33	4.87	0.09
2027 Oct	Mean	116.19	138.40	0.02	0.01	0.44	0.06	0.08	0.05	0.01	35.41	0.23	0.79	10.04	0.48	1.12	0.18	0.009	0.010	0.25	0.86	13.08	0.022	0.011	0.25	0.03	26.66	0.005	0.14	0.09	0.13	9.86	1.24	5.26	2.04	0.20	67.90	0.04	0.508	0.009	1.53	0.36	5.43	0.10
2027 Nov	Mean	109.00	129.74	0.02	0.01	0.47	0.05	0.08	0.05	0.00	33.20	0.25	0.74	11.14	0.47	1.14	0.17	0.009	0.009	0.24	0.80	12.25	0.024	0.012	0.24	0.02	29.51	0.005	0.14	0.10	0.14	9.20	1.37	5.58	1.91	0.19	70.44	0.04	0.478	0.009	1.57	0.36	5.57	0.10
2027 Dec	Mean	111.07	132.06	0.02	0.01	0.57	0.06	0.10	0.06	0.01	33.80	0.32	0.74	14.24	0.50	1.32	0.17	0.010	0.009	0.24	0.81	12.46	0.031	0.015	0.24	0.02	37.68	0.005	0.15	0.13	0.17	9.31	1.75	6.76	1.94	0.20	83.03	0.04	0.488	0.011	1.82	0.39	6.59	0.10
2028 Jan	Mean	110.48	131.23	0.02	0.01	0.62	0.06	0.10	0.07	0.01	33.60	0.36	0.74	16.03	0.52	1.41	0.17	0.011	0.009	0.24	0.80	12.36	0.035	0.017	0.24	0.02	42.37	0.005	0.15	0.15	0.19	9.19	1.97	7.41	1.92	0.20	89.80	0.04	0.486	0.012	1.95	0.41	7.14	0.10
2028 Feb	Mean	108.33	128.62	0.02	0.01	0.63	0.06	0.10	0.07	0.00	32.93	0.36	0.72	16.21	0.51	1.41	0.16	0.011	0.009	0.23	0.78	12.11	0.035	0.017	0.23	0.02	42.83	0.005	0.15	0.16	0.19	8.98	1.99	7.45	1.88	0.19	89.92	0.04	0.477	0.012	1.95	0.40	7.15	0.10
2028 Mar	Mean	105.00	124.65	0.02	0.01	0.60	0.06	0.10	0.06	0.00	31.92	0.35	0.70	15.56	0.50	1.35	0.16	0.010	0.008	0.23	0.76	11.74	0.034	0.017	0.23	0.02	41.13	0.005	0.15	0.15	0.19	8.70	1.91	7.16	1.82	0.19	86.57	0.03	0.462	0.012	1.87	0.39	6.89	0.09
2028 Apr	Mean	128.60	153.19	0.02	0.01	0.54	0.06	0.09	0.06	0.01	39.19	0.31	0.87	12.89	0.55	1.39	0.20	0.012	0.011	0.28	0.95	14.48	0.029	0.014	0.28	0.03	34.43	0.006	0.16	0.13	0.17	10.92	1.56	6.43	2.26	0.23	81.27	0.04	0.563	0.011	1.82	0.42	7.38	0.11
2028 May	Mean	2146.69	2574.02	0.14	0.21	3.83	0.99	0.84	0.57	0.09	657.31	2.08	15.10	54.07	7.55	17.11	3.41	0.204	0.194	4.76	16.71	245.22	0.159	0.057	4.64	0.51	162.27	0.093	2.07	0.33	1.07	190.86	5.19	45.42	38.58	3.70	699.59	0.72	9.277	0.130	17.58	5.60	107.96	1.86
2028 Jun	Mean	2252.38	2701.97	0.13	0.22	3.85	1.04	0.86	0.59	0.10	689.90	2.12	15.88	51.61	7.87	17.91	3.59	0.217	0.204	5.00	17.59	257.54	0.159	0.054	4.87	0.54	157.79	0.098	2.16	0.28	1.07	200.88	4.70	45.60	40.54	3.88	711.81	0.76	9.725	0.136	18.02	5.83	114.89	1.94
2028 Jul	Mean	108.42	129.29	0.01	0.01	0.33	0.05	0.06	0.03	0.00	33.06	0.16	0.74	6.79	0.42	0.91	0.17	0.008	0.009	0.24	0.81	12.24	0.015	0.008	0.23	0.02	18.11	0.005	0.12	0.06	0.10	9.27	0.84	3.94	1.91	0.19	53.25	0.04	0.473	0.007	1.23	0.32	4.35	0.09
2028 Aug	Mean	106.11	126.39	0.01	0.01	0.40	0.05	0.07	0.04	0.00	32.33	0.21	0.72	9.09	0.44	1.02	0.16	0.008	0.009	0.23	0.78	11.95	0.020	0.010	0.23	0.02	24.13	0.005	0.13	0.08	0.12	9.01	1.12	4.77	1.86	0.19	61.72	0.04	0.464	0.008	1.39	0.33	4.94	0.09
2028 Sep	Mean	105.75	125.93	0.02	0.01	0.42	0.05	0.08	0.04	0.00	32.22	0.23	0.72	9.81	0.44	1.06	0.16	0.009	0.009	0.23	0.78	11.90	0.022	0.011	0.23	0.02	26.01	0.005	0.13	0.09	0.13	8.96	1.21	5.03	1.86	0.19	64.43	0.03	0.463	0.008	1.44	0.34	5.16	0.09
2028 Oct	Mean	131.95	157.28	0.02	0.01	0.48	0.06	0.09	0.05	0.01	40.23	0.25	0.90	10.66	0.54	1.26	0.20	0.011	0.011	0.29	0.98	14.88	0.024	0.012	0.28	0.03	28.41	0.006	0.15	0.10	0.14	11.25	1.31	5.67	2.32	0.23	73.94	0.04	0.577	0.010	1.68	0.41	6.27	0.12
2028 Nov	Mean	108.38	128.95	0.02	0.01	0.48	0.06	0.08	0.05	0.00	33.00	0.26	0.73	11.63	0.47	1.16	0.17	0.009	0.009	0.23	0.79	12.17	0.026	0.013	0.23	0.02	30.79	0.005	0.14	0.11	0.15	9.13	1.43	5.75	1.90	0.19	72.18	0.04	0.475	0.009	1.60	0.36	5.73	0.10
2028 Dec	Mean	111.16	132.12	0.02	0.01	0.58	0.06	0.10	0.06	0.01	33.82	0.33	0.74	14.52	0.51	1.33	0.17	0.010	0.009	0.24	0.81	12.46	0.032	0.016	0.24	0.02	38.40	0.005	0.15	0.14	0.18	9.29	1.79	6.86	1.94	0.20	84.12	0.04	0.488	0.011	1.84	0.39	6.69	0.10
2029 Jan	Mean	110.29	130.98	0.02	0.01	0.64	0.06	0.11	0.07	0.01	33.53	0.37	0.73	17.05	0.53	1.44	0.17	0.011	0.009	0.24	0.80	12.34	0.036	0.018	0.24	0.02	45.13	0.005	0.16	0.16	0.20	9.16	2.04	7.83	1.92	0.20	92.86	0.04	0.485	0.012	2.02	0.41	7.34	0.10
2029 Feb	Mean	107.68	127.83	0.02	0.01	0.66	0.06	0.11	0.07	0.00	32.73	0.39	0.72	18.08	0.52	1.46	0.16	0.011	0.009	0.23	0.78	12.04	0.038	0.019	0.23	0.02	47.91	0.005	0.16	0.16	0.21	8.92	2.12	8.23	1.87	0.19	95.33	0.04	0.474	0.013	2.07	0.41	7.49	0.09
2029 Mar	Mean	104.15	123.64	0.02	0.01	0.64	0.06	0.11																																				

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Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2030 Jul	Mean	194.30	232.14	0.02	0.02	0.53	0.09	0.10	0.06	0.01	59.34	0.27	1.34	10.69	0.74	1.66	0.30	0.016	0.017	0.43	1.47	22.02	0.025	0.012	0.42	0.04	29.03	0.008	0.21	0.08	0.16	16.85	1.26	6.45	3.45	0.34	88.39	0.06	0.845	0.013	2.08	0.55	9.03	0.17
2030 Aug	Mean	105.54	125.72	0.02	0.01	0.42	0.05	0.08	0.04	0.00	32.16	0.23	0.72	9.97	0.44	1.06	0.16	0.009	0.009	0.23	0.78	11.88	0.022	0.011	0.23	0.02	26.47	0.005	0.13	0.08	0.13	8.96	1.21	5.11	1.85	0.19	64.78	0.03	0.462	0.008	1.45	0.34	5.20	0.09
2030 Sep	Mean	109.39	130.27	0.02	0.01	0.46	0.06	0.08	0.05	0.00	33.33	0.25	0.74	10.94	0.46	1.13	0.17	0.009	0.009	0.24	0.81	12.31	0.024	0.012	0.24	0.02	29.04	0.005	0.13	0.09	0.14	9.27	1.33	5.52	1.92	0.19	69.46	0.04	0.479	0.009	1.55	0.36	5.61	0.10
2030 Oct	Mean	104.31	124.17	0.02	0.01	0.45	0.05	0.08	0.05	0.00	31.77	0.25	0.70	10.97	0.45	1.10	0.16	0.009	0.009	0.23	0.77	11.73	0.024	0.012	0.23	0.02	29.09	0.005	0.13	0.09	0.14	8.81	1.34	5.47	1.83	0.18	68.37	0.03	0.457	0.009	1.52	0.34	5.42	0.09
2030 Nov	Mean	107.72	128.16	0.02	0.01	0.51	0.06	0.09	0.05	0.00	32.80	0.28	0.72	12.69	0.48	1.21	0.16	0.010	0.009	0.23	0.79	12.10	0.027	0.014	0.23	0.02	33.61	0.005	0.14	0.11	0.16	9.06	1.54	6.15	1.88	0.19	75.84	0.04	0.472	0.010	1.67	0.37	6.01	0.09
2030 Dec	Mean	110.36	131.15	0.02	0.01	0.61	0.06	0.10	0.07	0.01	33.57	0.35	0.74	15.86	0.52	1.39	0.17	0.011	0.009	0.24	0.80	12.36	0.034	0.017	0.24	0.02	41.97	0.005	0.15	0.14	0.19	9.21	1.92	7.37	1.92	0.19	88.76	0.04	0.485	0.012	1.93	0.40	7.04	0.10
2031 Jan	Mean	109.43	129.92	0.02	0.01	0.68	0.06	0.11	0.07	0.01	33.26	0.40	0.73	17.82	0.53	1.50	0.17	0.011	0.009	0.23	0.79	12.23	0.039	0.019	0.24	0.02	47.10	0.005	0.16	0.16	0.21	9.07	2.18	8.07	1.90	0.19	96.58	0.04	0.482	0.013	2.08	0.42	7.70	0.10
2031 Feb	Mean	106.73	126.64	0.03	0.01	0.69	0.06	0.11	0.07	0.00	32.43	0.41	0.71	18.18	0.53	1.52	0.16	0.011	0.009	0.23	0.77	11.92	0.040	0.020	0.23	0.02	47.99	0.005	0.16	0.17	0.22	8.81	2.25	8.14	1.85	0.19	97.78	0.03	0.470	0.013	2.09	0.42	7.83	0.09
2031 Mar	Mean	103.26	122.52	0.02	0.01	0.67	0.06	0.11	0.07	0.00	31.37	0.40	0.68	17.45	0.51	1.47	0.16	0.011	0.008	0.22	0.74	11.53	0.039	0.019	0.22	0.02	46.05	0.005	0.15	0.17	0.21	8.52	2.17	7.82	1.79	0.18	94.22	0.03	0.455	0.013	2.01	0.41	7.56	0.09
2031 Apr	Mean	145.75	173.79	0.02	0.02	0.68	0.08	0.12	0.08	0.01	44.45	0.41	0.99	16.69	0.65	1.79	0.23	0.017	0.012	0.32	1.09	16.45	0.039	0.018	0.31	0.03	44.72	0.006	0.19	0.15	0.21	12.46	2.03	7.99	2.57	0.26	100.55	0.05	0.637	0.015	2.22	0.50	10.66	0.13
2031 May	Mean	2059.99	2469.78	0.14	0.22	3.87	0.96	0.84	0.58	0.09	630.71	2.09	14.48	57.20	7.33	16.99	3.27	0.215	0.186	4.57	16.02	235.26	0.176	0.063	4.45	0.49	168.10	0.089	2.02	0.38	1.13	183.01	5.96	45.81	37.01	3.55	704.86	0.69	8.904	0.135	17.49	5.40	117.30	1.78
2031 Jun	Mean	2410.48	2890.48	0.15	0.25	4.11	1.11	0.93	0.63	0.10	738.11	2.14	16.96	53.76	8.45	19.10	3.84	0.246	0.217	5.35	18.77	275.38	0.176	0.060	5.21	0.57	161.84	0.104	2.32	0.32	1.18	214.40	5.37	48.77	43.33	4.15	773.43	0.81	10.415	0.149	19.47	6.20	132.00	2.08
2031 Jul	Mean	179.40	214.27	0.02	0.02	0.49	0.09	0.10	0.06	0.01	54.77	0.25	1.23	9.50	0.68	1.52	0.28	0.015	0.015	0.39	1.36	20.32	0.023	0.011	0.39	0.04	25.70	0.008	0.19	0.08	0.15	15.53	1.17	5.80	3.18	0.31	81.06	0.06	0.781	0.012	1.90	0.51	8.25	0.16
2031 Aug	Mean	105.12	125.18	0.02	0.01	0.43	0.05	0.08	0.04	0.00	32.03	0.23	0.71	9.98	0.44	1.08	0.16	0.009	0.009	0.23	0.78	11.83	0.022	0.011	0.23	0.02	26.42	0.005	0.13	0.09	0.13	8.91	1.26	5.07	1.85	0.18	65.42	0.03	0.460	0.009	1.46	0.34	5.29	0.09
2031 Sep	Mean	103.69	123.42	0.02	0.01	0.46	0.05	0.08	0.05	0.00	31.58	0.25	0.70	10.95	0.45	1.12	0.16	0.009	0.009	0.22	0.76	11.66	0.025	0.012	0.22	0.02	28.97	0.005	0.13	0.10	0.14	8.76	1.38	5.41	1.82	0.18	68.94	0.03	0.454	0.009	1.52	0.35	5.55	0.09
2031 Oct	Mean	103.08	122.66	0.02	0.01	0.49	0.05	0.08	0.05	0.00	31.39	0.27	0.69	11.68	0.45	1.16	0.16	0.009	0.009	0.22	0.76	11.58	0.026	0.013	0.22	0.02	30.89	0.005	0.13	0.10	0.15	8.68	1.47	5.68	1.80	0.18	71.70	0.03	0.452	0.009	1.58	0.35	5.75	0.09
2031 Nov	Mean	106.32	126.43	0.02	0.01	0.55	0.06	0.09	0.06	0.00	32.36	0.31	0.71	13.55	0.48	1.27	0.16	0.010	0.009	0.23	0.78	11.93	0.030	0.015	0.23	0.02	35.79	0.005	0.14	0.12	0.17	8.92	1.70	6.41	1.86	0.19	79.86	0.03	0.467	0.011	1.74	0.38	6.40	0.09
2031 Dec	Mean	108.53	128.92	0.02	0.01	0.67	0.06	0.11	0.07	0.00	33.00	0.39	0.72	17.20	0.53	1.49	0.16	0.011	0.009	0.23	0.79	12.15	0.038	0.019	0.23	0.02	45.38	0.005	0.16	0.15	0.21	9.03	2.15	7.79	1.89	0.19	94.83	0.04	0.477	0.013	2.03	0.42	7.62	0.10
2032 Jan	Mean	107.48	127.55	0.03	0.01	0.74	0.06	0.12	0.08	0.00	32.66	0.44	0.71	19.74	0.55	1.60	0.16	0.012	0.009	0.23	0.77	12.00	0.043	0.021	0.23	0.02	52.13	0.005	0.17	0.17	0.23	8.88	2.42	8.76	1.86	0.19	103.77	0.04	0.474	0.014	2.21	0.44	8.31	0.09
2032 Feb	Mean	105.04	124.60	0.03	0.01	0.74	0.06	0.12	0.08	0.00	31.91	0.45	0.69	20.36	0.54	1.60	0.16	0.012	0.008	0.22	0.75	11.72	0.044	0.022	0.23	0.02	53.83	0.005	0.16	0.17	0.23	8.65	2.45	9.00	1.82	0.19	104.77	0.03	0.463	0.014	2.24	0.43	8.34	0.09
2032 Mar	Mean	101.78	120.72	0.03	0.01	0.71	0.06	0.11	0.08	0.00	30.92	0.43	0.67	19.57	0.52	1.54	0.15	0.011	0.008	0.22	0.73	11.35	0.042	0.021	0.22	0.02	51.76	0.004	0.16	0.17	0.22	8.38	2.34	8.67	1.76	0.18	100.57	0.03	0.449	0.013	2.15	0.42	7.99	0.09
2032 Apr	Mean	180.60	215.55	0.03	0.02	0.74	0.09	0.13	0.09	0.01	55.11	0.43	1.24	17.94	0.77	2.02	0.28	0.019	0.015	0.39	1.36	20.42	0.041	0.019	0.39	0.04	48.31	0.008	0.22	0.15	0.23	15.55	2.09	8.98	3.20	0.32	112.24	0.06	0.787	0.017	2.52	0.59	11.95	0.16
2032 May	Mean	1985.39	2380.36	0.14	0.21	3.82	0.93	0.83	0.57	0.09	607.87	2.06	13.96	59.77	7.10	16.46	3.16	0.206	0.179	4.40	15.44	226.74	0.174	0.065	4.29	0.47	174.34	0.086	1.96	0.39	1.11	176.39	6.10	46.21	35.67	3.42	694.30	0.67	8.581	0.130	17.19	5.24	112.18	1.72
2032 Jun	Mean	1330.26	1594.97	0.09	0.14	2.37	0.62	0.53	0.36	0.06	407.30	1.23	9.35	33.68	4.69	10.62	2.12	0.135	0.120	2.95	10.35	151.94	0.102	0.037	2.88	0.31	99.76	0.058	1.29	0.20	0.68	118.23	3.36	28.61	23.90	2.29	441.19	0.45	5.749	0.083	11.04	3.45	72.15	1.15
2032 Jul	Mean	161.52	192.86	0.02	0.01	0.49	0.08	0.09	0.06	0.01	49.31	0.26	1.11	10.54	0.63	1.45	0.25	0.014	0.014	0.35	1.22	18.28	0.024	0.012	0.35	0.04	28.45	0.007	0.18	0.09	0.15	13.95	1.24	6.01	2.86	0.28	79.76	0.05	0.704	0.011	1.85	0.47	7.94	0.14
2032 Aug	Mean	104.66	124.61	0.02	0.01	0.44	0.05	0.08	0.05	0.00	31.88	0.24	0.71	10.85	0.45	1.09	0.16	0.009	0.009	0.23	0.77	11.77	0.023	0.012	0.23	0.02	28.82	0.005	0.13	0.09	0.14	8.86	1.30	5.44	1.84	0.18	67.64	0.03	0.458	0.009	1.51	0.34	5.42	0.09
2032 Sep	Mean	109.63	130.49	0.02	0.01	0.49	0.06																																					

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2034 Jan	Mean	109.10	129.44	0.03	0.01	0.68	0.06	0.11	0.08	0.01	33.15	0.40	0.72	21.47	0.53	1.51	0.16	0.011	0.009	0.23	0.78	12.18	0.039	0.022	0.24	0.02	55.40	0.005	0.16	0.18	0.21	9.00	2.21	10.00	1.89	0.19	103.54	0.04	0.481	0.013	2.30	0.42	7.74	0.10
2034 Feb	Mean	106.89	126.77	0.03	0.01	0.68	0.06	0.11	0.08	0.00	32.47	0.41	0.71	21.29	0.53	1.50	0.16	0.011	0.008	0.23	0.76	11.92	0.040	0.022	0.23	0.02	55.79	0.005	0.16	0.18	0.21	8.79	2.22	9.74	1.85	0.19	102.52	0.03	0.472	0.013	2.26	0.42	7.74	0.09
2034 Mar	Mean	103.74	123.03	0.02	0.01	0.65	0.06	0.11	0.08	0.00	31.51	0.38	0.69	19.94	0.51	1.43	0.16	0.011	0.008	0.22	0.74	11.57	0.037	0.021	0.22	0.02	52.58	0.005	0.15	0.18	0.20	8.53	2.09	9.11	1.80	0.18	96.94	0.03	0.458	0.012	2.14	0.40	7.34	0.09
2034 Apr	Mean	172.07	205.10	0.02	0.02	0.66	0.09	0.12	0.08	0.01	52.46	0.37	1.17	17.61	0.71	1.78	0.27	0.016	0.015	0.37	1.28	19.40	0.035	0.018	0.37	0.04	47.22	0.008	0.20	0.15	0.20	14.68	1.83	8.98	3.03	0.30	104.36	0.06	0.752	0.015	2.40	0.55	9.67	0.15
2034 May	Mean	2154.88	2584.42	0.14	0.23	4.11	1.01	0.88	0.67	0.09	659.93	2.50	15.18	70.82	7.67	18.61	3.43	0.231	0.195	4.78	16.80	246.27	0.194	0.069	4.66	0.51	211.01	0.093	2.10	0.41	1.18	191.88	5.97	51.68	38.76	3.71	738.68	0.73	9.308	0.148	18.54	5.75	125.85	1.86
2034 Jun	Mean	2019.38	2422.40	0.12	0.22	3.58	0.94	0.78	0.60	0.09	618.52	2.16	14.24	56.36	7.11	17.00	3.22	0.214	0.183	4.48	15.77	230.89	0.163	0.055	4.37	0.48	171.43	0.087	1.94	0.30	1.02	180.07	4.54	44.54	36.35	3.48	656.24	0.68	8.719	0.134	16.64	5.31	115.46	1.74
2034 Jul	Mean	175.31	209.47	0.02	0.02	0.47	0.08	0.09	0.06	0.01	53.54	0.25	1.21	10.57	0.66	1.53	0.27	0.016	0.015	0.38	1.33	19.87	0.022	0.011	0.38	0.04	28.95	0.008	0.19	0.09	0.14	15.22	1.07	6.24	3.11	0.31	79.51	0.06	0.763	0.012	1.90	0.50	8.58	0.15
2034 Aug	Mean	151.99	181.41	0.02	0.02	0.53	0.07	0.10	0.07	0.01	46.38	0.30	1.04	13.70	0.61	1.54	0.24	0.015	0.013	0.33	1.14	17.19	0.028	0.014	0.33	0.03	37.11	0.007	0.17	0.11	0.16	13.09	1.40	7.16	2.69	0.27	85.04	0.05	0.662	0.013	1.97	0.47	8.80	0.13
2034 Sep	Mean	104.76	124.66	0.02	0.01	0.43	0.05	0.08	0.05	0.00	31.90	0.23	0.71	11.58	0.44	1.06	0.16	0.009	0.009	0.23	0.77	11.77	0.022	0.012	0.23	0.02	30.76	0.005	0.13	0.10	0.13	8.83	1.23	5.84	1.83	0.18	67.31	0.03	0.459	0.008	1.53	0.34	5.18	0.09
2034 Oct	Mean	104.46	124.26	0.02	0.01	0.44	0.05	0.08	0.05	0.00	31.80	0.24	0.70	12.11	0.44	1.08	0.16	0.009	0.009	0.23	0.76	11.73	0.023	0.013	0.23	0.02	32.14	0.005	0.13	0.11	0.13	8.79	1.29	6.05	1.83	0.18	69.14	0.03	0.458	0.009	1.57	0.34	5.29	0.09
2034 Nov	Mean	107.70	128.03	0.02	0.01	0.50	0.05	0.09	0.06	0.00	32.77	0.28	0.72	14.29	0.47	1.19	0.16	0.009	0.009	0.23	0.78	12.07	0.027	0.015	0.23	0.02	37.91	0.005	0.14	0.13	0.15	9.01	1.52	6.94	1.88	0.19	77.79	0.04	0.473	0.010	1.75	0.36	5.91	0.09
2034 Dec	Mean	110.45	131.15	0.02	0.01	0.61	0.06	0.10	0.07	0.01	33.58	0.35	0.73	18.01	0.51	1.38	0.17	0.011	0.009	0.24	0.80	12.35	0.034	0.019	0.24	0.02	47.71	0.005	0.15	0.16	0.19	9.17	1.90	8.41	1.92	0.20	91.75	0.04	0.486	0.012	2.04	0.40	6.97	0.10
2035 Jan	Mean	106.00	125.68	0.03	0.01	0.79	0.06	0.13	0.09	0.00	32.19	0.48	0.70	25.13	0.56	1.68	0.16	0.012	0.008	0.23	0.76	11.82	0.047	0.026	0.23	0.02	65.81	0.005	0.17	0.18	0.25	8.70	2.62	11.15	1.83	0.19	115.92	0.03	0.468	0.015	2.53	0.45	8.80	0.09
2035 Feb	Mean	99.57	117.94	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.22	0.57	0.65	30.62	0.58	1.91	0.15	0.013	0.008	0.21	0.70	11.07	0.057	0.031	0.21	0.02	79.61	0.004	0.18	0.20	0.29	8.11	3.16	13.23	1.72	0.18	133.78	0.03	0.440	0.017	2.89	0.48	10.15	0.09
2035 Mar	Mean	95.00	112.49	0.03	0.01	0.93	0.06	0.14	0.11	0.00	28.82	0.58	0.62	31.13	0.57	1.90	0.14	0.013	0.007	0.20	0.67	10.56	0.057	0.031	0.20	0.02	80.73	0.004	0.18	0.19	0.30	7.73	3.20	13.38	1.64	0.17	134.37	0.03	0.420	0.017	2.89	0.47	10.19	0.08
2035 Apr	Mean	221.73	264.35	0.04	0.03	1.17	0.12	0.19	0.15	0.01	67.61	0.72	1.51	35.23	1.02	2.97	0.34	0.026	0.019	0.48	1.65	25.01	0.068	0.035	0.48	0.05	92.65	0.010	0.30	0.21	0.36	18.94	3.55	16.42	3.91	0.39	177.66	0.07	0.969	0.026	3.98	0.80	17.37	0.19
2035 May	Mean	2425.67	2904.04	0.18	0.24	5.10	1.13	1.06	0.75	0.11	741.89	2.82	16.92	97.51	8.76	20.31	3.83	0.238	0.215	5.35	18.66	276.16	0.233	0.101	5.24	0.56	274.03	0.105	2.41	0.47	1.47	213.38	9.02	66.33	43.37	4.20	907.24	0.81	10.513	0.160	22.41	6.54	128.90	2.10
2035 Jun	Mean	2453.56	2938.32	0.16	0.24	4.60	1.13	1.00	0.69	0.11	750.59	2.50	17.14	77.70	8.68	19.72	3.88	0.238	0.218	5.42	18.92	279.52	0.200	0.081	5.30	0.57	223.76	0.106	2.37	0.34	1.31	216.29	6.92	58.78	43.91	4.24	841.36	0.82	10.628	0.154	21.11	6.45	126.91	2.13
2035 Jul	Mean	193.58	231.18	0.02	0.02	0.66	0.10	0.12	0.08	0.01	59.10	0.37	1.33	17.25	0.78	1.93	0.30	0.019	0.017	0.42	1.46	21.92	0.034	0.018	0.42	0.04	45.75	0.008	0.22	0.10	0.20	16.74	1.74	9.10	3.43	0.34	107.52	0.06	0.843	0.016	2.50	0.59	10.93	0.17
2035 Aug	Mean	119.09	141.76	0.02	0.01	0.63	0.06	0.11	0.07	0.01	36.27	0.37	0.80	18.99	0.55	1.49	0.18	0.012	0.010	0.26	0.88	13.39	0.035	0.019	0.26	0.03	49.40	0.005	0.16	0.11	0.20	10.07	1.96	8.95	2.09	0.21	96.92	0.04	0.522	0.012	2.17	0.43	7.69	0.10
2035 Sep	Mean	98.85	117.52	0.02	0.01	0.62	0.05	0.10	0.07	0.00	30.08	0.37	0.66	19.47	0.49	1.39	0.15	0.010	0.008	0.21	0.72	11.08	0.036	0.020	0.21	0.02	50.52	0.004	0.15	0.12	0.20	8.28	2.01	8.89	1.73	0.17	93.83	0.03	0.434	0.012	2.07	0.38	7.16	0.09
2035 Oct	Mean	115.45	137.30	0.03	0.01	0.72	0.06	0.12	0.08	0.01	35.14	0.42	0.78	22.32	0.57	1.62	0.18	0.012	0.009	0.25	0.84	12.95	0.041	0.023	0.25	0.03	57.96	0.005	0.17	0.13	0.22	9.69	2.30	10.20	2.02	0.20	107.94	0.04	0.507	0.014	2.39	0.45	8.43	0.10
2035 Nov	Mean	100.38	119.21	0.03	0.01	0.74	0.06	0.12	0.09	0.00	30.52	0.45	0.67	23.96	0.53	1.60	0.15	0.012	0.008	0.22	0.72	11.23	0.044	0.024	0.22	0.02	62.11	0.004	0.16	0.14	0.23	8.34	2.47	10.66	1.75	0.18	110.20	0.03	0.442	0.014	2.41	0.42	8.37	0.09
2035 Dec	Mean	101.00	119.76	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.67	0.56	0.67	30.18	0.59	1.89	0.15	0.013	0.008	0.22	0.72	11.26	0.056	0.030	0.22	0.02	78.19	0.004	0.18	0.18	0.29	8.30	3.10	13.10	1.75	0.18	132.52	0.03	0.446	0.017	2.86	0.47	10.06	0.09
2036 Jan	Mean	99.15	117.43	0.04	0.01	1.00	0.06	0.15	0.12	0.00	30.09	0.63	0.65	33.80	0.61	2.05	0.15	0.014	0.008	0.21	0.70	11.02	0.062	0.034	0.21	0.02	87.55	0.004	0.19	0.20	0.32	8.08	3.47	14.49	1.71	0.18	144.96	0.03	0.439	0.019	3.12	0.50	11.00	0.09
2036 Feb	Mean	96.77	114.56	0.04	0.01	1.01	0.06	0.15	0.12	0.00	29.36	0.64	0.63	34.11	0.61	2.05	0.14	0.014	0.007	0.21	0.68	10.75	0.063	0.034	0.21	0.02	88.33	0.004	0.19	0.20	0.32	7.86	3.50	14.57	1.66	0.17	145.43	0.03	0.428	0.019	3.12	0.50	11.03	0.09
2036 Mar	Mean	93.68	110.90	0.04	0.01	0																																						

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	205.28	244.80	0.02	0.02	0.66	0.10	0.12	0.08	0.01	62.60	0.36	1.40	16.73	0.81	1.91	0.32	0.018	0.017	0.45	1.53	23.17	0.033	0.017	0.44	0.05	44.29	0.009	0.23	0.10	0.20	17.57	1.70	9.04	3.62	0.36	108.27	0.07	0.896	0.015	2.54	0.61	10.53	0.18
2037 Aug	Mean	115.98	138.03	0.02	0.01	0.58	0.06	0.10	0.07	0.01	35.32	0.34	0.78	17.31	0.52	1.40	0.18	0.011	0.010	0.25	0.85	13.03	0.032	0.018	0.25	0.03	45.10	0.005	0.15	0.11	0.18	9.78	1.78	8.23	2.03	0.20	89.86	0.04	0.508	0.012	2.02	0.41	7.32	0.10
2037 Sep	Mean	106.85	127.06	0.02	0.01	0.61	0.06	0.10	0.07	0.00	32.52	0.36	0.72	18.69	0.51	1.39	0.16	0.011	0.009	0.23	0.78	11.99	0.035	0.019	0.23	0.02	48.52	0.005	0.15	0.12	0.19	8.96	1.93	8.68	1.87	0.19	92.86	0.04	0.469	0.012	2.06	0.40	7.15	0.09
2037 Oct	Mean	104.48	124.18	0.02	0.01	0.65	0.06	0.11	0.08	0.00	31.79	0.38	0.70	20.13	0.51	1.45	0.16	0.011	0.009	0.22	0.76	11.71	0.037	0.021	0.23	0.02	52.24	0.005	0.15	0.13	0.20	8.73	2.08	9.21	1.82	0.18	97.43	0.03	0.459	0.012	2.15	0.40	7.47	0.09
2037 Nov	Mean	126.54	150.43	0.03	0.01	0.77	0.07	0.13	0.09	0.01	38.50	0.46	0.85	24.00	0.62	1.77	0.19	0.014	0.010	0.27	0.92	14.18	0.045	0.024	0.27	0.03	62.48	0.006	0.18	0.15	0.24	10.59	2.46	10.96	2.21	0.22	116.08	0.04	0.556	0.015	2.57	0.49	9.52	0.11
2037 Dec	Mean	102.88	122.00	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.25	0.52	0.68	27.87	0.57	1.79	0.15	0.013	0.008	0.22	0.73	11.47	0.051	0.028	0.22	0.02	72.23	0.005	0.18	0.18	0.27	8.46	2.87	12.21	1.78	0.18	124.64	0.03	0.454	0.016	2.71	0.46	9.45	0.09
2038 Jan	Mean	101.17	119.83	0.03	0.01	0.94	0.06	0.15	0.11	0.00	30.70	0.59	0.66	31.44	0.60	1.95	0.15	0.014	0.008	0.22	0.71	11.25	0.058	0.032	0.22	0.02	81.44	0.004	0.19	0.20	0.30	8.24	3.23	13.58	1.74	0.18	136.89	0.03	0.447	0.018	2.96	0.48	10.38	0.09
2038 Feb	Mean	98.59	116.71	0.03	0.01	0.96	0.06	0.15	0.11	0.00	29.91	0.60	0.64	32.08	0.59	1.96	0.15	0.014	0.008	0.21	0.69	10.95	0.059	0.032	0.21	0.02	83.09	0.004	0.19	0.20	0.31	8.01	3.30	13.80	1.70	0.18	138.51	0.03	0.436	0.018	2.98	0.48	10.50	0.09
2038 Mar	Mean	95.43	112.97	0.03	0.01	0.92	0.06	0.14	0.11	0.00	28.95	0.58	0.62	30.98	0.57	1.90	0.14	0.013	0.007	0.20	0.67	10.60	0.057	0.031	0.21	0.02	80.25	0.004	0.18	0.20	0.29	7.75	3.19	13.33	1.64	0.17	133.81	0.03	0.422	0.017	2.88	0.47	10.14	0.08
2038 Apr	Mean	113.15	134.37	0.03	0.01	0.78	0.06	0.13	0.09	0.01	34.40	0.47	0.75	24.87	0.58	1.73	0.17	0.013	0.009	0.24	0.82	12.66	0.046	0.025	0.24	0.02	64.63	0.005	0.18	0.16	0.25	9.40	2.55	11.14	1.97	0.20	115.98	0.04	0.498	0.015	2.55	0.46	9.31	0.10
2038 May	Mean	2824.55	3372.52	0.22	0.26	6.02	1.30	1.25	0.84	0.12	862.20	3.17	19.40	116.04	10.14	22.53	4.40	0.257	0.243	6.17	21.29	319.70	0.266	0.122	6.10	0.64	321.92	0.123	2.75	0.63	1.71	243.88	11.05	78.13	50.04	4.93	1059.90	0.94	12.304	0.178	26.20	7.56	137.66	2.46
2038 Jun	Mean	1805.91	2157.00	0.12	0.17	3.32	0.82	0.73	0.48	0.08	551.39	1.72	12.43	54.68	6.31	13.70	2.82	0.163	0.156	3.95	13.65	204.55	0.137	0.058	3.90	0.41	156.42	0.079	1.70	0.27	0.93	156.30	4.98	42.11	32.03	3.15	605.09	0.60	7.862	0.107	15.28	4.68	85.96	1.57
2038 Jul	Mean	149.70	178.41	0.02	0.01	0.56	0.07	0.10	0.07	0.01	45.63	0.31	1.02	15.05	0.61	1.52	0.23	0.014	0.013	0.33	1.11	16.87	0.029	0.016	0.32	0.03	39.63	0.007	0.18	0.10	0.17	12.75	1.53	7.71	2.64	0.26	89.18	0.05	0.654	0.012	2.06	0.47	8.33	0.13
2038 Aug	Mean	109.94	130.81	0.02	0.01	0.57	0.06	0.10	0.07	0.00	33.47	0.32	0.74	16.91	0.50	1.33	0.17	0.011	0.009	0.24	0.81	12.35	0.031	0.017	0.24	0.02	43.97	0.005	0.15	0.11	0.18	9.26	1.75	8.02	1.92	0.19	87.22	0.04	0.482	0.011	1.95	0.39	6.80	0.10
2038 Sep	Mean	102.44	121.79	0.02	0.01	0.59	0.06	0.10	0.07	0.00	31.17	0.34	0.69	18.06	0.49	1.34	0.16	0.010	0.008	0.22	0.75	11.49	0.033	0.019	0.22	0.02	46.88	0.004	0.15	0.12	0.18	8.58	1.87	8.37	1.79	0.18	89.55	0.03	0.450	0.011	1.99	0.38	6.85	0.09
2038 Oct	Mean	102.57	121.90	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.20	0.37	0.69	19.43	0.50	1.40	0.16	0.011	0.008	0.22	0.75	11.49	0.036	0.020	0.22	0.02	50.41	0.004	0.15	0.13	0.20	8.57	2.01	8.91	1.79	0.18	94.46	0.03	0.451	0.012	2.09	0.39	7.20	0.09
2038 Nov	Mean	101.79	120.88	0.03	0.01	0.70	0.06	0.11	0.08	0.00	30.95	0.42	0.68	22.12	0.52	1.52	0.15	0.011	0.008	0.22	0.73	11.38	0.041	0.023	0.22	0.02	57.36	0.004	0.16	0.14	0.22	8.45	2.28	9.95	1.77	0.18	103.88	0.03	0.448	0.013	2.28	0.41	7.88	0.09
2038 Dec	Mean	103.23	122.41	0.03	0.01	0.84	0.06	0.13	0.10	0.00	31.35	0.51	0.68	27.48	0.57	1.77	0.16	0.013	0.008	0.22	0.74	11.51	0.051	0.028	0.22	0.02	71.21	0.005	0.18	0.18	0.27	8.48	2.83	12.06	1.79	0.18	123.28	0.03	0.456	0.016	2.68	0.46	9.34	0.09
2039 Jan	Mean	101.57	120.30	0.03	0.01	0.93	0.06	0.15	0.11	0.00	30.82	0.58	0.67	31.00	0.59	1.93	0.15	0.014	0.008	0.22	0.72	11.29	0.057	0.031	0.22	0.02	80.31	0.004	0.18	0.20	0.30	8.28	3.19	13.41	1.75	0.18	135.38	0.03	0.449	0.017	2.93	0.48	10.26	0.09
2039 Feb	Mean	98.90	117.09	0.03	0.01	0.95	0.06	0.15	0.11	0.00	30.00	0.59	0.65	31.65	0.59	1.94	0.15	0.014	0.008	0.21	0.70	10.99	0.058	0.032	0.21	0.02	81.99	0.004	0.18	0.21	0.30	8.03	3.25	13.63	1.70	0.18	137.03	0.03	0.438	0.018	2.95	0.48	10.38	0.09
2039 Mar	Mean	95.68	113.27	0.03	0.01	0.91	0.06	0.14	0.11	0.00	29.02	0.57	0.63	30.60	0.57	1.88	0.14	0.013	0.007	0.20	0.67	10.63	0.056	0.031	0.21	0.02	79.25	0.004	0.18	0.20	0.29	7.77	3.15	13.18	1.65	0.17	132.48	0.03	0.423	0.017	2.86	0.46	10.04	0.08
2039 Apr	Mean	178.03	211.70	0.04	0.02	1.01	0.10	0.17	0.13	0.01	54.18	0.62	1.19	31.18	0.84	2.45	0.27	0.021	0.015	0.38	1.30	19.97	0.060	0.031	0.38	0.04	81.65	0.008	0.25	0.20	0.32	14.93	3.16	14.30	3.11	0.31	152.59	0.06	0.781	0.022	3.40	0.66	14.10	0.16
2039 May	Mean	2526.12	3016.40	0.19	0.24	5.27	1.16	1.10	0.77	0.11	771.14	2.88	17.36	100.21	9.03	20.46	3.94	0.240	0.217	5.52	19.05	285.96	0.239	0.103	5.45	0.57	281.15	0.110	2.44	0.52	1.50	218.21	9.30	67.89	44.77	4.40	927.26	0.84	11.003	0.164	23.03	6.74	129.92	2.20
2039 Jun	Mean	2020.25	2413.04	0.13	0.19	3.69	0.91	0.81	0.54	0.09	616.84	1.93	13.91	60.34	7.05	15.38	3.15	0.185	0.174	4.42	15.27	228.84	0.153	0.064	4.36	0.46	173.33	0.088	1.89	0.29	1.03	174.87	5.45	46.66	35.84	3.52	672.37	0.67	8.795	0.121	17.00	5.23	97.47	1.76
2039 Jul	Mean	184.96	220.48	0.02	0.02	0.65	0.09	0.12	0.08	0.01	56.39	0.36	1.26	17.18	0.75	1.82	0.29	0.017	0.016	0.40	1.38	20.86	0.034	0.018	0.40	0.04	45.34	0.008	0.21	0.11	0.20	15.78	1.75	8.98	3.26	0.32	105.10	0.06	0.808	0.015	2.44	0.57	9.97	0.16
2039 Aug	Mean	107.36	127.73	0.02	0.01	0.55	0.06	0.09	0.06	0.00	32.69	0.31	0.72	16.36	0.49	1.29	0.16	0.010	0.009	0.23	0.79	12.06	0.030	0.017	0.23	0.02	42.53	0.005	0.14	0.11	0.17	9.04	1.69	7.77	1.88	0.19	84.66	0.04	0.471	0.011	1.90	0.38	6.57	0.09
2039 Sep	Mean	100.38	119.35	0.02	0.0																																							

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2041 Jan	Mean	101.95	120.76	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.94	0.57	0.67	30.53	0.59	1.91	0.15	0.013	0.008	0.22	0.72	11.34	0.056	0.031	0.22	0.02	79.08	0.004	0.18	0.20	0.29	8.31	3.14	13.23	1.76	0.18	133.76	0.03	0.451	0.017	2.89	0.48	10.13	0.09
2041 Feb	Mean	99.31	117.57	0.03	0.01	0.93	0.06	0.14	0.11	0.00	30.13	0.58	0.65	31.17	0.59	1.92	0.15	0.013	0.008	0.21	0.70	11.03	0.057	0.031	0.21	0.02	80.73	0.004	0.18	0.21	0.30	8.06	3.21	13.45	1.71	0.18	135.37	0.03	0.440	0.017	2.92	0.48	10.25	0.09
2041 Mar	Mean	96.07	113.73	0.03	0.01	0.90	0.06	0.14	0.11	0.00	29.14	0.56	0.63	30.05	0.57	1.85	0.14	0.013	0.007	0.20	0.68	10.67	0.055	0.030	0.21	0.02	77.84	0.004	0.18	0.20	0.29	7.80	3.09	12.97	1.65	0.17	130.59	0.03	0.425	0.017	2.82	0.46	9.89	0.09
2041 Apr	Mean	110.72	131.47	0.03	0.01	0.76	0.06	0.12	0.09	0.01	33.66	0.47	0.74	24.09	0.56	1.71	0.17	0.013	0.009	0.24	0.80	12.38	0.045	0.024	0.24	0.02	62.74	0.005	0.17	0.16	0.24	9.19	2.46	10.77	1.92	0.20	112.16	0.04	0.487	0.015	2.47	0.45	9.44	0.10
2041 May	Mean	2456.64	2933.26	0.19	0.23	5.18	1.13	1.08	0.75	0.11	749.90	2.81	16.88	99.45	8.80	19.88	3.83	0.231	0.211	5.37	18.51	278.06	0.234	0.103	5.30	0.56	278.05	0.107	2.38	0.54	1.48	212.12	9.30	66.92	43.52	4.28	910.40	0.82	10.701	0.159	22.57	6.57	125.19	2.14
2041 Jun	Mean	2337.10	2791.50	0.15	0.22	4.23	1.06	0.93	0.63	0.10	713.59	2.21	16.09	68.39	8.15	17.77	3.65	0.214	0.202	5.11	17.66	264.73	0.176	0.072	5.05	0.53	197.06	0.102	2.18	0.34	1.18	202.29	6.14	53.37	41.46	4.07	772.01	0.78	10.174	0.140	19.55	6.05	113.02	2.03
2041 Jul	Mean	174.11	207.60	0.02	0.02	0.56	0.08	0.10	0.07	0.01	53.09	0.29	1.19	13.98	0.68	1.58	0.27	0.015	0.015	0.38	1.30	19.65	0.027	0.015	0.38	0.04	36.86	0.008	0.19	0.09	0.17	14.89	1.43	7.63	3.07	0.30	91.61	0.06	0.760	0.012	2.15	0.52	8.31	0.15
2041 Aug	Mean	172.90	205.90	0.03	0.02	0.73	0.09	0.13	0.09	0.01	52.68	0.42	1.17	20.65	0.74	1.89	0.27	0.017	0.014	0.37	1.28	19.46	0.040	0.021	0.37	0.04	54.17	0.008	0.21	0.14	0.22	14.65	2.11	10.19	3.04	0.30	114.69	0.06	0.757	0.016	2.62	0.57	10.35	0.15
2041 Sep	Mean	160.71	191.25	0.03	0.02	0.77	0.08	0.13	0.10	0.01	48.94	0.46	1.08	22.67	0.71	1.93	0.25	0.017	0.013	0.35	1.18	18.06	0.043	0.023	0.35	0.04	59.42	0.007	0.21	0.15	0.24	13.55	2.31	10.81	2.82	0.28	118.69	0.05	0.704	0.016	2.68	0.56	10.79	0.14
2041 Oct	Mean	100.41	119.35	0.02	0.01	0.58	0.05	0.10	0.07	0.00	30.55	0.34	0.67	17.73	0.48	1.31	0.15	0.010	0.008	0.22	0.73	11.25	0.033	0.018	0.22	0.02	46.02	0.004	0.14	0.12	0.18	8.39	1.83	8.22	1.75	0.18	87.86	0.03	0.441	0.011	1.95	0.37	6.68	0.09
2041 Nov	Mean	102.88	122.18	0.02	0.01	0.66	0.06	0.11	0.08	0.00	31.28	0.39	0.69	20.83	0.51	1.46	0.16	0.011	0.008	0.22	0.74	11.51	0.038	0.021	0.22	0.02	54.03	0.005	0.15	0.14	0.21	8.55	2.15	9.46	1.79	0.18	99.49	0.03	0.453	0.013	2.19	0.40	7.54	0.09
2041 Dec	Mean	104.30	123.69	0.03	0.01	0.80	0.06	0.13	0.09	0.00	31.68	0.49	0.69	26.13	0.56	1.71	0.16	0.012	0.008	0.22	0.74	11.63	0.048	0.026	0.22	0.02	67.72	0.005	0.17	0.18	0.25	8.57	2.69	11.54	1.80	0.19	118.65	0.03	0.460	0.015	2.59	0.45	8.98	0.09
2042 Jan	Mean	102.71	121.66	0.03	0.01	0.89	0.06	0.14	0.11	0.00	31.17	0.55	0.67	29.58	0.58	1.86	0.15	0.013	0.008	0.22	0.73	11.42	0.054	0.030	0.22	0.02	76.63	0.005	0.18	0.20	0.28	8.37	3.04	12.87	1.77	0.18	130.50	0.03	0.454	0.017	2.83	0.47	9.88	0.09
2042 Feb	Mean	100.03	118.43	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.35	0.57	0.65	30.26	0.58	1.88	0.15	0.013	0.008	0.21	0.70	11.11	0.056	0.031	0.22	0.02	78.39	0.004	0.18	0.21	0.29	8.12	3.11	13.10	1.72	0.18	132.26	0.03	0.443	0.017	2.86	0.47	10.01	0.09
2042 Mar	Mean	96.80	114.59	0.03	0.01	0.88	0.06	0.14	0.10	0.00	29.36	0.55	0.63	29.24	0.56	1.82	0.14	0.013	0.008	0.21	0.68	10.75	0.054	0.029	0.21	0.02	75.75	0.004	0.17	0.20	0.28	7.86	3.01	12.66	1.67	0.17	127.82	0.03	0.428	0.016	2.76	0.46	9.68	0.09
2042 Apr	Mean	126.05	149.74	0.03	0.01	0.78	0.07	0.13	0.09	0.01	38.33	0.47	0.84	24.41	0.62	1.77	0.19	0.014	0.010	0.27	0.91	14.11	0.045	0.025	0.27	0.03	63.47	0.006	0.18	0.17	0.24	10.50	2.51	11.12	2.19	0.22	117.42	0.04	0.554	0.015	2.60	0.49	9.43	0.11
2042 May	Mean	2440.80	2914.45	0.18	0.23	5.03	1.12	1.06	0.73	0.11	745.08	2.73	16.77	94.38	8.70	19.60	3.80	0.230	0.210	5.34	18.40	276.29	0.225	0.098	5.27	0.55	265.14	0.106	2.35	0.52	1.43	210.80	8.75	64.68	43.25	4.26	887.59	0.81	10.632	0.157	22.09	6.50	124.22	2.13
2042 Jun	Mean	2581.79	3083.69	0.17	0.24	4.68	1.17	1.03	0.69	0.11	788.29	2.45	17.77	75.84	9.00	19.64	4.03	0.237	0.223	5.65	19.51	292.43	0.194	0.080	5.58	0.59	218.45	0.112	2.41	0.39	1.30	223.43	6.81	59.07	45.79	4.50	853.74	0.86	11.240	0.154	21.62	6.68	124.93	2.25
2042 Jul	Mean	190.86	227.52	0.02	0.02	0.64	0.09	0.12	0.08	0.01	58.19	0.35	1.30	16.61	0.76	1.82	0.29	0.017	0.016	0.41	1.42	21.53	0.033	0.017	0.41	0.04	43.91	0.008	0.21	0.11	0.19	16.29	1.69	8.82	3.36	0.33	104.33	0.06	0.834	0.015	2.43	0.58	10.04	0.17
2042 Aug	Mean	111.21	132.32	0.02	0.01	0.53	0.06	0.09	0.06	0.01	33.86	0.30	0.75	15.63	0.49	1.28	0.17	0.010	0.009	0.24	0.82	12.49	0.029	0.016	0.24	0.02	40.67	0.005	0.14	0.11	0.16	9.37	1.62	7.53	1.95	0.20	82.88	0.04	0.488	0.011	1.87	0.38	6.50	0.10
2042 Sep	Mean	100.87	119.93	0.02	0.01	0.55	0.05	0.09	0.06	0.00	30.70	0.32	0.68	16.71	0.47	1.27	0.15	0.010	0.008	0.22	0.73	11.31	0.031	0.017	0.22	0.02	43.38	0.004	0.14	0.12	0.17	8.45	1.73	7.82	1.76	0.18	84.30	0.03	0.443	0.011	1.88	0.37	6.43	0.09
2042 Oct	Mean	139.38	165.80	0.03	0.01	0.70	0.07	0.12	0.08	0.01	42.43	0.40	0.94	20.73	0.63	1.67	0.21	0.014	0.011	0.30	1.02	15.65	0.039	0.021	0.30	0.03	54.02	0.006	0.18	0.14	0.22	11.72	2.13	9.85	2.44	0.25	107.56	0.05	0.611	0.014	2.42	0.49	8.80	0.12
2042 Nov	Mean	103.29	122.67	0.02	0.01	0.65	0.06	0.11	0.08	0.00	31.41	0.38	0.69	20.41	0.51	1.44	0.16	0.011	0.008	0.22	0.75	11.56	0.038	0.021	0.22	0.02	52.95	0.005	0.15	0.14	0.20	8.59	2.11	9.30	1.80	0.18	98.09	0.03	0.454	0.012	2.17	0.40	7.43	0.09
2042 Dec	Mean	104.60	124.05	0.03	0.01	0.79	0.06	0.13	0.09	0.00	31.77	0.48	0.69	25.64	0.56	1.69	0.16	0.012	0.008	0.22	0.75	11.66	0.047	0.026	0.23	0.02	66.45	0.005	0.17	0.18	0.25	8.60	2.64	11.35	1.81	0.19	116.95	0.03	0.462	0.015	2.55	0.45	8.85	0.09
2043 Jan	Mean	103.05	122.06	0.03	0.01	0.88	0.06	0.14	0.10	0.00	31.27	0.54	0.68	29.12	0.58	1.84	0.15	0.013	0.008	0.22	0.73	11.46	0.054	0.029	0.22	0.02	75.44	0.005	0.18	0.20	0.28	8.40	3.00	12.69	1.78	0.18	128.92	0.03	0.456	0.016	2.80	0.47	9.76	0.09
2043 Feb	Mean	100.39	118.85	0.03	0.01	0.90	0.06	0.14	0.11	0.00	30.45	0.56	0.66	29.88	0.58	1.86	0.15	0.013	0.008	0.21	0.71	11.15	0.055	0.030	0.22	0.02	77.40	0.004	0.18	0.21	0.29	8.15	3.07	12.95	1.73	0.18	130.95	0.03	0.444	0.017	2.83	0.47	9.91	0.09
2043 Mar	Mean	97.01	114.84	0.03																																								

Table A-3

Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2044 Jul	Mean	171.75	204.74	0.02	0.02	0.56	0.08	0.10	0.07	0.01	52.37	0.31	1.17	14.39	0.68	1.61	0.27	0.015	0.014	0.37	1.28	19.37	0.028	0.015	0.37	0.04	38.08	0.007	0.19	0.10	0.17	14.66	1.46	7.72	3.03	0.30	91.93	0.06	0.750	0.013	2.15	0.52	8.87	0.15
2044 Aug	Mean	126.43	150.46	0.02	0.01	0.58	0.06	0.10	0.07	0.01	38.50	0.32	0.85	16.70	0.55	1.41	0.19	0.012	0.010	0.27	0.93	14.21	0.031	0.017	0.27	0.03	43.52	0.006	0.16	0.12	0.18	10.67	1.72	8.13	2.21	0.22	90.26	0.04	0.554	0.012	2.04	0.43	7.24	0.11
2044 Sep	Mean	101.14	120.24	0.02	0.01	0.54	0.05	0.09	0.06	0.00	30.78	0.31	0.68	16.38	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.34	0.030	0.017	0.22	0.02	42.53	0.004	0.14	0.12	0.17	8.47	1.70	7.70	1.77	0.18	83.18	0.03	0.444	0.011	1.86	0.36	6.34	0.09
2044 Oct	Mean	151.23	179.95	0.03	0.01	0.71	0.08	0.12	0.08	0.01	46.05	0.41	1.02	20.86	0.67	1.75	0.23	0.015	0.012	0.33	1.11	16.99	0.039	0.021	0.33	0.03	54.44	0.007	0.19	0.15	0.22	12.74	2.14	10.04	2.65	0.27	110.72	0.05	0.663	0.015	2.50	0.52	9.25	0.13
2044 Nov	Mean	103.29	122.66	0.02	0.01	0.65	0.06	0.11	0.08	0.00	31.40	0.38	0.69	20.24	0.51	1.44	0.16	0.011	0.008	0.22	0.75	11.55	0.037	0.021	0.22	0.02	52.50	0.005	0.15	0.14	0.20	8.58	2.09	9.23	1.80	0.18	97.44	0.03	0.454	0.012	2.15	0.40	7.38	0.09
2044 Dec	Mean	105.01	124.52	0.03	0.01	0.79	0.06	0.13	0.09	0.00	31.89	0.48	0.69	25.44	0.56	1.68	0.16	0.012	0.008	0.22	0.75	11.71	0.047	0.026	0.23	0.02	65.95	0.005	0.17	0.18	0.25	8.63	2.62	11.28	1.82	0.19	116.34	0.03	0.463	0.015	2.54	0.45	8.81	0.09
2045 Jan	Mean	103.44	122.51	0.03	0.01	0.87	0.06	0.14	0.10	0.00	31.39	0.54	0.68	28.80	0.58	1.83	0.15	0.013	0.008	0.22	0.73	11.50	0.053	0.029	0.22	0.02	74.62	0.005	0.18	0.20	0.28	8.43	2.96	12.57	1.78	0.18	127.85	0.03	0.457	0.016	2.77	0.47	9.68	0.09
2045 Feb	Mean	100.72	119.25	0.03	0.01	0.89	0.06	0.14	0.11	0.00	30.56	0.55	0.66	29.48	0.58	1.85	0.15	0.013	0.008	0.21	0.71	11.19	0.054	0.030	0.22	0.02	76.37	0.004	0.18	0.21	0.28	8.18	3.03	12.80	1.73	0.18	129.58	0.03	0.446	0.017	2.81	0.47	9.81	0.09
2045 Mar	Mean	97.35	115.25	0.03	0.01	0.86	0.06	0.13	0.10	0.00	29.53	0.53	0.64	28.48	0.56	1.78	0.15	0.013	0.008	0.21	0.69	10.82	0.052	0.029	0.21	0.02	73.77	0.004	0.17	0.20	0.27	7.91	2.93	12.36	1.67	0.17	125.19	0.03	0.431	0.016	2.71	0.45	9.47	0.09
2045 Apr	Mean	202.55	241.13	0.03	0.02	0.90	0.10	0.15	0.11	0.01	61.70	0.53	1.37	25.83	0.88	2.36	0.31	0.022	0.017	0.44	1.49	22.78	0.050	0.026	0.44	0.04	68.03	0.009	0.25	0.18	0.28	17.12	2.61	12.49	3.55	0.36	139.06	0.07	0.887	0.020	3.17	0.68	13.59	0.18
2045 May	Mean	3139.78	3749.14	0.23	0.30	6.35	1.43	1.34	0.93	0.14	958.47	3.46	21.58	117.26	11.16	25.14	4.89	0.297	0.270	6.86	23.67	355.42	0.284	0.121	6.78	0.71	330.97	0.137	3.01	0.65	1.80	271.21	10.78	81.42	55.64	5.48	1124.86	1.04	13.676	0.201	28.07	8.32	160.61	2.74
2045 Jun	Mean	2579.62	3081.07	0.17	0.24	4.63	1.17	1.02	0.68	0.11	787.62	2.37	17.75	73.79	8.98	19.34	4.02	0.232	0.223	5.64	19.49	292.18	0.188	0.079	5.57	0.59	212.14	0.112	2.41	0.39	1.28	223.23	6.69	58.47	45.75	4.49	849.01	0.86	11.230	0.151	21.51	6.65	121.19	2.25
2045 Jul	Mean	172.60	205.78	0.02	0.02	0.55	0.08	0.10	0.07	0.01	52.63	0.30	1.18	13.77	0.68	1.60	0.27	0.016	0.015	0.38	1.29	19.47	0.027	0.014	0.37	0.04	36.51	0.008	0.19	0.09	0.16	14.75	1.39	7.47	3.04	0.30	89.72	0.06	0.754	0.013	2.11	0.51	8.89	0.15
2045 Aug	Mean	103.04	122.58	0.02	0.01	0.50	0.05	0.09	0.06	0.00	31.37	0.28	0.69	14.61	0.46	1.18	0.16	0.009	0.008	0.22	0.75	11.57	0.027	0.015	0.22	0.02	37.96	0.005	0.13	0.11	0.15	8.67	1.51	7.03	1.80	0.18	77.33	0.03	0.452	0.010	1.74	0.35	5.93	0.09
2045 Sep	Mean	120.62	143.41	0.02	0.01	0.64	0.06	0.11	0.07	0.01	36.71	0.37	0.81	19.16	0.55	1.48	0.18	0.012	0.010	0.26	0.88	13.53	0.035	0.020	0.26	0.03	49.78	0.005	0.16	0.14	0.20	10.11	1.98	9.03	2.11	0.21	97.77	0.04	0.530	0.012	2.19	0.43	7.54	0.11
2045 Oct	Mean	101.63	120.79	0.02	0.01	0.57	0.05	0.09	0.07	0.00	30.92	0.33	0.68	17.30	0.48	1.29	0.15	0.010	0.008	0.22	0.74	11.39	0.032	0.018	0.22	0.02	44.91	0.004	0.14	0.13	0.18	8.49	1.79	8.07	1.77	0.18	86.58	0.03	0.447	0.011	1.93	0.37	6.58	0.09
2045 Nov	Mean	150.90	179.46	0.03	0.02	0.78	0.08	0.13	0.10	0.01	45.93	0.47	1.01	23.29	0.69	1.91	0.23	0.016	0.012	0.33	1.10	16.93	0.044	0.024	0.33	0.03	60.97	0.007	0.20	0.16	0.24	12.67	2.37	10.92	2.64	0.27	118.43	0.05	0.662	0.016	2.66	0.54	10.69	0.13
2045 Dec	Mean	105.22	124.77	0.03	0.01	0.78	0.06	0.12	0.09	0.00	31.96	0.47	0.69	25.16	0.55	1.67	0.16	0.012	0.008	0.22	0.75	11.73	0.046	0.026	0.23	0.02	65.21	0.005	0.17	0.18	0.25	8.65	2.59	11.17	1.82	0.19	115.34	0.03	0.464	0.015	2.52	0.44	8.73	0.09
2046 Jan	Mean	103.73	122.86	0.03	0.01	0.87	0.06	0.14	0.10	0.00	31.48	0.53	0.68	28.45	0.58	1.81	0.16	0.013	0.008	0.22	0.73	11.54	0.052	0.029	0.22	0.02	73.71	0.005	0.18	0.20	0.27	8.45	2.93	12.43	1.79	0.18	126.63	0.03	0.459	0.016	2.75	0.47	9.58	0.09
2046 Feb	Mean	101.04	119.62	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.65	0.54	0.66	29.11	0.57	1.83	0.15	0.013	0.008	0.21	0.71	11.23	0.054	0.029	0.22	0.02	75.41	0.004	0.18	0.21	0.28	8.21	3.00	12.66	1.74	0.18	128.31	0.03	0.447	0.016	2.78	0.46	9.71	0.09
2046 Mar	Mean	97.65	115.60	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.62	0.53	0.64	28.13	0.56	1.77	0.15	0.012	0.008	0.21	0.69	10.85	0.052	0.028	0.21	0.02	72.88	0.004	0.17	0.20	0.27	7.93	2.89	12.23	1.68	0.17	124.01	0.03	0.432	0.016	2.69	0.45	9.38	0.09
2046 Apr	Mean	180.41	214.57	0.03	0.02	0.92	0.09	0.15	0.11	0.01	54.91	0.55	1.21	27.48	0.82	2.28	0.28	0.020	0.015	0.39	1.32	20.25	0.053	0.028	0.39	0.04	72.06	0.008	0.24	0.19	0.28	15.15	2.79	12.89	3.15	0.32	140.03	0.06	0.792	0.020	3.15	0.64	12.97	0.16
2046 May	Mean	3160.42	3773.95	0.23	0.30	6.24	1.44	1.33	0.91	0.14	964.80	3.35	21.72	111.87	11.18	24.90	4.92	0.295	0.272	6.91	23.84	357.79	0.273	0.116	6.82	0.72	316.60	0.138	3.01	0.63	1.76	273.07	10.28	79.70	56.01	5.51	1112.29	1.05	13.765	0.198	27.84	8.33	158.06	2.75
2046 Jun	Mean	1867.84	2230.96	0.12	0.17	3.33	0.84	0.74	0.49	0.08	570.30	1.71	12.85	52.42	6.49	14.01	2.91	0.169	0.161	4.09	14.11	211.57	0.135	0.056	4.03	0.42	151.29	0.081	1.74	0.28	0.92	161.65	4.72	41.87	33.13	3.25	610.19	0.62	8.131	0.109	15.48	4.81	88.39	1.63
2046 Jul	Mean	192.48	229.48	0.02	0.02	0.60	0.09	0.11	0.07	0.01	58.69	0.32	1.31	15.12	0.75	1.76	0.30	0.017	0.016	0.42	1.43	21.71	0.030	0.016	0.42	0.04	40.03	0.008	0.21	0.11	0.18	16.44	1.54	8.26	3.39	0.34	99.50	0.06	0.841	0.014	2.34	0.57	9.58	0.17
2046 Aug	Mean	103.02	122.54	0.02	0.01	0.50	0.05	0.09	0.06	0.00	31.36	0.28	0.69	14.54	0.46	1.18	0.16	0.009	0.008	0.22	0.75	11.57	0.027	0.015	0.22	0.02	37.99	0.005	0.13	0.11	0.15	8.66	1.51	7.00	1.80	0.18	77.06	0.03	0.452	0.010	1.74	0.35	5.91	0.09
2046 Sep																																												

Table A-3
Monthly WQ Report for Scenario A.1.c - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	104.22	123.45	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.63	0.52	0.68	27.79	0.57	1.78	0.16	0.013	0.008	0.22	0.74	11.59	0.051	0.028	0.22	0.02	72.02	0.005	0.18	0.20	0.27	8.49	2.86	12.18	1.80	0.19	124.39	0.03	0.461	0.016	2.71	0.46	9.41	0.09
2048 Feb	Mean	101.52	120.20	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.80	0.53	0.66	28.55	0.57	1.80	0.15	0.013	0.008	0.22	0.71	11.28	0.053	0.029	0.22	0.02	73.97	0.004	0.18	0.21	0.27	8.25	2.94	12.44	1.75	0.18	126.42	0.03	0.449	0.016	2.74	0.46	9.56	0.09
2048 Mar	Mean	98.07	116.10	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.75	0.52	0.64	27.65	0.55	1.75	0.15	0.012	0.008	0.21	0.69	10.89	0.051	0.028	0.21	0.02	71.65	0.004	0.17	0.20	0.27	7.96	2.85	12.05	1.69	0.18	122.38	0.03	0.434	0.016	2.65	0.45	9.25	0.09
2048 Apr	Mean	117.05	138.97	0.03	0.01	0.74	0.06	0.12	0.09	0.01	35.58	0.44	0.78	23.13	0.58	1.64	0.18	0.012	0.009	0.25	0.84	13.09	0.043	0.024	0.25	0.02	60.03	0.005	0.17	0.17	0.23	9.71	2.38	10.52	2.03	0.21	110.89	0.04	0.515	0.014	2.45	0.45	8.55	0.10
2048 May	Mean	2542.49	3035.60	0.19	0.24	5.28	1.16	1.11	0.76	0.11	776.07	2.85	17.46	99.85	9.08	20.39	3.96	0.238	0.218	5.56	19.15	287.74	0.236	0.104	5.49	0.58	279.68	0.111	2.45	0.59	1.50	219.45	9.32	68.07	45.04	4.43	931.22	0.85	11.077	0.163	23.14	6.77	128.24	2.22
2048 Jun	Mean	2575.65	3076.40	0.17	0.24	4.55	1.16	1.01	0.67	0.11	786.42	2.35	17.73	71.11	8.94	19.32	4.02	0.234	0.222	5.64	19.46	291.74	0.185	0.075	5.56	0.59	205.88	0.112	2.39	0.38	1.26	222.92	6.36	57.21	45.69	4.49	836.21	0.86	11.213	0.151	21.25	6.63	122.52	2.24
2048 Jul	Mean	168.50	200.88	0.02	0.01	0.52	0.08	0.10	0.06	0.01	51.38	0.27	1.15	12.84	0.66	1.48	0.26	0.014	0.014	0.37	1.25	19.01	0.025	0.014	0.36	0.04	33.82	0.007	0.18	0.09	0.15	14.39	1.32	7.12	2.97	0.30	86.31	0.06	0.736	0.012	2.03	0.49	7.65	0.15
2048 Aug	Mean	103.22	122.79	0.02	0.01	0.49	0.05	0.08	0.06	0.00	31.42	0.27	0.69	14.27	0.46	1.16	0.16	0.009	0.008	0.22	0.76	11.59	0.026	0.015	0.22	0.02	37.08	0.005	0.13	0.11	0.15	8.68	1.48	6.90	1.81	0.18	76.14	0.03	0.453	0.010	1.72	0.35	5.83	0.09
2048 Sep	Mean	153.93	183.20	0.03	0.02	0.69	0.08	0.12	0.08	0.00	46.88	0.40	1.04	19.77	0.67	1.76	0.24	0.015	0.013	0.33	1.13	17.30	0.038	0.020	0.33	0.03	51.87	0.007	0.19	0.14	0.21	12.99	2.01	9.59	2.70	0.27	106.73	0.05	0.675	0.015	2.43	0.52	9.74	0.13
2048 Oct	Mean	114.57	136.23	0.02	0.01	0.59	0.06	0.10	0.07	0.01	34.87	0.34	0.77	17.54	0.52	1.37	0.17	0.011	0.009	0.25	0.84	12.85	0.033	0.018	0.25	0.02	45.58	0.005	0.15	0.13	0.18	9.60	1.81	8.32	2.00	0.20	90.48	0.04	0.503	0.011	2.03	0.40	6.99	0.10
2048 Nov	Mean	103.93	123.43	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.60	0.37	0.69	19.54	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.63	0.036	0.020	0.22	0.02	50.69	0.005	0.15	0.15	0.20	8.64	2.02	8.97	1.81	0.18	95.07	0.03	0.457	0.012	2.11	0.40	7.19	0.09
2048 Dec	Mean	105.66	125.30	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.09	0.46	0.70	24.57	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.78	0.045	0.025	0.23	0.02	63.70	0.005	0.17	0.18	0.24	8.68	2.53	10.95	1.83	0.19	113.34	0.03	0.466	0.014	2.48	0.44	8.57	0.09
2049 Jan	Mean	104.26	123.49	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.64	0.52	0.68	27.87	0.57	1.79	0.16	0.013	0.008	0.22	0.74	11.59	0.051	0.028	0.22	0.02	72.23	0.005	0.18	0.21	0.27	8.50	2.87	12.22	1.80	0.19	124.69	0.03	0.461	0.016	2.71	0.46	9.43	0.09
2049 Feb	Mean	101.55	120.23	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.81	0.53	0.66	28.57	0.57	1.81	0.15	0.013	0.008	0.22	0.71	11.28	0.053	0.029	0.22	0.02	74.01	0.004	0.18	0.21	0.27	8.25	2.94	12.45	1.75	0.18	126.47	0.03	0.449	0.016	2.74	0.46	9.56	0.09
2049 Mar	Mean	98.16	116.20	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.78	0.52	0.64	27.73	0.55	1.75	0.15	0.012	0.008	0.21	0.69	10.90	0.051	0.028	0.21	0.02	71.83	0.004	0.17	0.20	0.27	7.97	2.85	12.08	1.69	0.18	122.65	0.03	0.434	0.016	2.66	0.45	9.27	0.09
2049 Apr	Mean	156.53	186.14	0.03	0.02	0.81	0.08	0.14	0.10	0.01	47.64	0.49	1.05	24.42	0.71	2.01	0.24	0.018	0.013	0.34	1.14	17.56	0.047	0.025	0.34	0.03	64.04	0.007	0.21	0.17	0.25	13.13	2.47	11.40	2.73	0.28	123.34	0.05	0.687	0.017	2.77	0.56	11.55	0.14
2049 May	Mean	2767.14	3304.05	0.20	0.26	5.56	1.26	1.18	0.79	0.12	844.69	2.91	19.01	101.23	9.82	21.61	4.31	0.251	0.238	6.05	20.86	313.21	0.240	0.107	5.98	0.63	283.92	0.120	2.65	0.60	1.57	238.96	9.49	71.48	49.03	4.83	991.07	0.92	12.054	0.170	24.71	7.31	133.70	2.41
2049 Jun	Mean	2499.29	2985.21	0.16	0.23	4.42	1.13	0.98	0.66	0.11	763.11	2.30	17.20	69.19	8.68	18.84	3.90	0.229	0.216	5.47	18.89	283.10	0.181	0.073	5.40	0.57	200.73	0.109	2.32	0.36	1.22	216.32	6.15	55.48	44.33	4.35	810.64	0.83	10.880	0.148	20.61	6.43	120.36	2.18
2049 Jul	Mean	165.51	197.34	0.02	0.01	0.51	0.08	0.10	0.06	0.01	50.47	0.27	1.13	12.47	0.64	1.49	0.26	0.014	0.014	0.36	1.23	18.68	0.025	0.013	0.36	0.04	33.06	0.007	0.18	0.09	0.15	14.15	1.27	6.89	2.92	0.29	83.58	0.05	0.723	0.012	1.97	0.49	8.15	0.14
2049 Aug	Mean	103.25	122.83	0.02	0.01	0.49	0.05	0.08	0.06	0.00	31.43	0.28	0.69	14.37	0.46	1.17	0.16	0.009	0.008	0.22	0.76	11.59	0.027	0.015	0.22	0.02	37.35	0.005	0.13	0.11	0.15	8.68	1.49	6.94	1.81	0.18	76.51	0.03	0.453	0.010	1.72	0.35	5.86	0.09
2049 Sep	Mean	101.62	120.82	0.02	0.01	0.53	0.05	0.09	0.06	0.00	30.92	0.30	0.68	15.78	0.46	1.22	0.15	0.010	0.008	0.22	0.74	11.40	0.029	0.016	0.22	0.02	40.97	0.004	0.14	0.12	0.16	8.51	1.63	7.47	1.77	0.18	81.11	0.03	0.446	0.010	1.82	0.36	6.18	0.09
2049 Oct	Mean	100.83	119.83	0.02	0.01	0.55	0.05	0.09	0.06	0.00	30.67	0.32	0.67	16.77	0.47	1.26	0.15	0.010	0.008	0.22	0.73	11.30	0.031	0.017	0.22	0.02	43.54	0.004	0.14	0.12	0.17	8.42	1.74	7.85	1.76	0.18	84.47	0.03	0.443	0.011	1.88	0.37	6.42	0.09
2049 Nov	Mean	103.70	123.17	0.02	0.01	0.62	0.06	0.10	0.07	0.00	31.53	0.36	0.69	19.24	0.50	1.39	0.16	0.010	0.008	0.22	0.75	11.60	0.036	0.020	0.22	0.02	49.92	0.005	0.15	0.14	0.19	8.62	1.99	8.85	1.80	0.18	93.95	0.03	0.456	0.012	2.08	0.39	7.12	0.09
2049 Dec	Mean	105.74	125.41	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.12	0.46	0.70	24.28	0.55	1.63	0.16	0.012	0.008	0.23	0.76	11.79	0.045	0.025	0.23	0.02	62.93	0.005	0.17	0.18	0.24	8.70	2.50	10.83	1.83	0.19	112.30	0.03	0.466	0.014	2.46	0.44	8.50	0.09
2050 Jan	Mean	104.31	123.56	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.66	0.52	0.68	27.73	0.57	1.78	0.16	0.013	0.008	0.22	0.74	11.60	0.051	0.028	0.22	0.02	71.86	0.005	0.18	0.20	0.27	8.50	2.86	12.16	1.80	0.19	124.19	0.03	0.461	0.016	2.70	0.46	9.39	0.09
2050 Feb	Mean	101.56	120.24	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.81	0.53	0.66	28.54	0.57	1.80	0.15	0.013	0.008	0.22	0.72	11.28	0.053	0.029	0.22	0.02	73.94	0.004	0.18	0.21	0.27	8.25	2.94	12.44	1.75	0.18	126.38	0.03	0.449	0.016	2.74	0.46	9.56	0.09
2050 Mar	Mean	98.12	116.16	0.03	0.01																																							

Table A-3

Monthly WQ Report for Scenario A.1.c - Interim/Ultimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	112.48	134.01	0.02	0.01	0.41	0.06	0.07	0.05	0.01	34.28	0.21	0.76	10.83	0.46	1.07	0.17	0.009	0.009	0.24	0.83	12.67	0.020	0.011	0.24	0.02	28.27	0.005	0.13	0.08	0.12	9.56	1.13	5.67	1.98	0.20	66.07	0.04	0.492	0.008	1.53	0.35	5.27	0.10
2051 Aug	Mean	128.55	153.00	0.02	0.01	0.57	0.07	0.10	0.07	0.01	39.15	0.31	0.87	16.15	0.55	1.39	0.20	0.011	0.011	0.28	0.94	14.45	0.030	0.017	0.28	0.03	42.05	0.006	0.16	0.12	0.17	10.85	1.67	7.95	2.25	0.23	88.87	0.04	0.563	0.011	2.02	0.43	7.03	0.11
2051 Sep	Mean	109.26	129.93	0.02	0.01	0.55	0.06	0.09	0.06	0.00	33.25	0.31	0.73	16.22	0.49	1.29	0.17	0.010	0.009	0.24	0.80	12.26	0.030	0.017	0.24	0.02	42.16	0.005	0.14	0.12	0.17	9.17	1.68	7.74	1.91	0.19	84.51	0.04	0.480	0.011	1.90	0.38	6.52	0.10
2051 Oct	Mean	100.83	119.82	0.02	0.01	0.56	0.05	0.09	0.06	0.00	30.67	0.32	0.67	17.01	0.47	1.27	0.15	0.010	0.008	0.22	0.73	11.29	0.031	0.017	0.22	0.02	44.15	0.004	0.14	0.13	0.17	8.42	1.76	7.94	1.76	0.18	85.31	0.03	0.443	0.011	1.90	0.37	6.47	0.09
2051 Nov	Mean	103.70	123.13	0.02	0.01	0.64	0.06	0.11	0.07	0.00	31.53	0.38	0.69	19.89	0.51	1.42	0.16	0.011	0.008	0.22	0.75	11.60	0.037	0.020	0.22	0.02	51.59	0.005	0.15	0.15	0.20	8.61	2.06	9.10	1.80	0.18	96.25	0.03	0.456	0.012	2.13	0.40	7.28	0.09
2051 Dec	Mean	105.48	125.08	0.03	0.01	0.77	0.06	0.12	0.09	0.00	32.04	0.46	0.70	24.68	0.55	1.65	0.16	0.012	0.008	0.23	0.75	11.76	0.045	0.025	0.23	0.02	63.97	0.005	0.17	0.18	0.24	8.67	2.54	10.99	1.82	0.19	113.67	0.03	0.465	0.014	2.49	0.44	8.60	0.09
2052 Jan	Mean	104.11	123.31	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.59	0.52	0.68	27.94	0.57	1.79	0.16	0.013	0.008	0.22	0.74	11.58	0.051	0.028	0.22	0.02	72.39	0.005	0.18	0.21	0.27	8.48	2.88	12.24	1.79	0.19	124.89	0.03	0.460	0.016	2.72	0.46	9.44	0.09
2052 Feb	Mean	101.42	120.07	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.77	0.54	0.66	28.65	0.57	1.81	0.15	0.013	0.008	0.22	0.71	11.27	0.053	0.029	0.22	0.02	74.23	0.004	0.18	0.21	0.28	8.24	2.95	12.48	1.74	0.18	126.76	0.03	0.449	0.016	2.75	0.46	9.59	0.09
2052 Mar	Mean	97.98	116.00	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.72	0.52	0.64	27.78	0.55	1.75	0.15	0.012	0.008	0.21	0.69	10.88	0.051	0.028	0.21	0.02	71.97	0.004	0.17	0.20	0.27	7.96	2.86	12.10	1.69	0.17	122.81	0.03	0.434	0.016	2.66	0.45	9.29	0.09
2052 Apr	Mean	159.71	189.90	0.03	0.02	0.83	0.08	0.14	0.10	0.01	48.60	0.49	1.07	25.02	0.73	1.98	0.24	0.016	0.013	0.34	1.16	17.91	0.047	0.026	0.34	0.03	65.21	0.007	0.21	0.18	0.26	13.39	2.57	11.76	2.79	0.28	127.48	0.05	0.701	0.017	2.86	0.57	10.56	0.14
2052 May	Mean	2472.78	2952.36	0.19	0.23	5.11	1.13	1.08	0.72	0.11	754.79	2.68	16.98	95.85	8.82	19.49	3.85	0.224	0.212	5.40	18.63	279.85	0.223	0.101	5.34	0.56	267.31	0.108	2.39	0.58	1.45	213.43	9.06	66.06	43.80	4.31	905.90	0.82	10.773	0.154	22.49	6.57	119.82	2.15
2052 Jun	Mean	1865.87	2228.55	0.12	0.17	3.35	0.84	0.74	0.49	0.08	569.69	1.72	12.84	53.28	6.49	14.04	2.91	0.169	0.161	4.08	14.10	211.33	0.137	0.056	4.03	0.42	153.52	0.081	1.74	0.29	0.93	161.45	4.80	42.17	33.09	3.25	612.63	0.62	8.123	0.110	15.53	4.81	88.64	1.62
2052 Jul	Mean	154.95	184.72	0.02	0.01	0.49	0.07	0.09	0.06	0.01	47.24	0.26	1.05	12.33	0.61	1.43	0.24	0.014	0.013	0.34	1.15	17.48	0.024	0.013	0.33	0.03	32.65	0.007	0.17	0.09	0.15	13.23	1.25	6.70	2.73	0.27	80.56	0.05	0.677	0.011	1.89	0.46	7.83	0.14
2052 Aug	Mean	120.13	142.96	0.02	0.01	0.54	0.06	0.09	0.06	0.01	36.58	0.30	0.81	15.68	0.52	1.33	0.18	0.011	0.010	0.26	0.88	13.50	0.029	0.016	0.26	0.03	40.85	0.005	0.15	0.12	0.17	10.13	1.62	7.65	2.10	0.21	85.11	0.04	0.527	0.011	1.93	0.40	6.77	0.11
2052 Sep	Mean	116.22	138.22	0.02	0.01	0.58	0.06	0.10	0.07	0.01	35.37	0.33	0.78	17.03	0.52	1.36	0.18	0.011	0.010	0.25	0.85	13.04	0.032	0.018	0.25	0.03	44.27	0.005	0.15	0.13	0.18	9.76	1.76	8.14	2.03	0.20	89.11	0.04	0.510	0.011	2.00	0.40	6.88	0.10
2052 Oct	Mean	101.03	120.06	0.02	0.01	0.56	0.05	0.09	0.06	0.00	30.73	0.32	0.68	16.97	0.47	1.27	0.15	0.010	0.008	0.22	0.73	11.32	0.031	0.017	0.22	0.02	44.04	0.004	0.14	0.13	0.17	8.44	1.76	7.93	1.76	0.18	85.22	0.03	0.444	0.011	1.90	0.37	6.47	0.09
2052 Nov	Mean	103.61	123.03	0.02	0.01	0.64	0.06	0.11	0.07	0.00	31.50	0.38	0.69	20.01	0.51	1.43	0.16	0.011	0.008	0.22	0.75	11.59	0.037	0.020	0.22	0.02	51.90	0.005	0.15	0.15	0.20	8.60	2.07	9.14	1.80	0.18	96.63	0.03	0.456	0.012	2.14	0.40	7.32	0.09
2052 Dec	Mean	105.35	124.92	0.03	0.01	0.77	0.06	0.12	0.09	0.00	32.00	0.47	0.70	24.80	0.55	1.65	0.16	0.012	0.008	0.22	0.75	11.74	0.046	0.025	0.23	0.02	64.30	0.005	0.17	0.18	0.24	8.66	2.56	11.03	1.82	0.19	114.08	0.03	0.465	0.015	2.50	0.44	8.63	0.09
2053 Jan	Mean	104.03	123.22	0.03	0.01	0.86	0.06	0.13	0.10	0.00	31.57	0.53	0.68	28.06	0.58	1.79	0.16	0.013	0.008	0.22	0.74	11.57	0.052	0.028	0.22	0.02	72.70	0.005	0.18	0.21	0.27	8.48	2.89	12.28	1.79	0.19	125.29	0.03	0.460	0.016	2.72	0.46	9.48	0.09
2053 Feb	Mean	101.38	120.02	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.75	0.54	0.66	28.74	0.57	1.81	0.15	0.013	0.008	0.22	0.71	11.26	0.053	0.029	0.22	0.02	74.46	0.004	0.18	0.21	0.28	8.23	2.96	12.52	1.74	0.18	127.06	0.03	0.449	0.016	2.76	0.46	9.61	0.09
2053 Mar	Mean	97.90	115.91	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.70	0.52	0.64	27.76	0.55	1.75	0.15	0.012	0.008	0.21	0.69	10.88	0.051	0.028	0.21	0.02	71.93	0.004	0.17	0.20	0.27	7.95	2.86	12.09	1.68	0.17	122.73	0.03	0.433	0.016	2.66	0.45	9.28	0.09
2053 Apr	Mean	93.52	110.91	0.02	0.01	0.68	0.05	0.11	0.08	0.00	28.41	0.41	0.62	21.83	0.49	1.46	0.14	0.011	0.007	0.20	0.67	10.43	0.040	0.022	0.20	0.02	56.60	0.004	0.15	0.16	0.21	7.69	2.25	9.72	1.62	0.17	100.55	0.03	0.413	0.013	2.20	0.39	7.67	0.08
2053 May	Mean	2668.37	3186.07	0.20	0.26	5.46	1.22	1.15	0.80	0.12	814.53	2.99	18.33	101.94	9.50	21.47	4.16	0.253	0.229	5.83	20.11	302.02	0.246	0.105	5.76	0.60	287.18	0.116	2.56	0.59	1.55	230.41	9.40	70.07	47.28	4.65	963.89	0.89	11.624	0.172	24.02	7.09	137.12	2.32
2053 Jun	Mean	1878.70	2243.91	0.12	0.17	3.35	0.85	0.74	0.50	0.08	573.61	1.73	12.93	53.12	6.53	14.15	2.93	0.171	0.162	4.11	14.19	212.79	0.137	0.056	4.06	0.43	153.41	0.082	1.75	0.28	0.93	162.58	4.76	42.22	33.32	3.27	614.41	0.63	8.179	0.111	15.59	4.84	89.70	1.64
2053 Jul	Mean	105.77	125.97	0.02	0.01	0.41	0.05	0.07	0.05	0.00	32.23	0.22	0.72	11.14	0.44	1.04	0.16	0.009	0.009	0.23	0.78	11.91	0.021	0.012	0.23	0.02	29.03	0.005	0.13	0.08	0.12	8.97	1.16	5.71	1.86	0.19	65.63	0.03	0.463	0.008	1.51	0.33	5.11	0.09
2053 Aug	Mean	102.72	122.18	0.02	0.01	0.51	0.05	0.09	0.06	0.00	31.27	0.29	0.69	14.94	0.46	1.19	0.16	0.009	0.008	0.22	0.75	11.53	0.028	0.015	0.22	0.02	38.81	0.004	0.13	0.11	0.16	8.63	1.55	7.15	1.80	0.18	78.41	0.03	0.451	0.010	1.76	0.36	5.99	0.09
2053 Sep	Mean	164.10	195.28	0.03																																								

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2020 Jan	Mean	122.34	146.23	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.37	0.01	0.85	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.88	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.64	0.03	1.62	2.18	0.21	30.56	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.56	150.07	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.36	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.28	0.95	14.24	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.92	0.04	1.77	2.23	0.22	31.71	0.04	0.546	0.003	0.84	0.29	2.34	0.11
2020 Mar	Mean	116.73	139.52	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.66	0.01	0.81	0.07	0.38	0.58	0.18	0.006	0.010	0.26	0.89	13.24	0.000	0.001	0.25	0.03	0.38	0.005	0.10	0.00	0.03	10.15	0.04	1.74	2.08	0.20	29.80	0.04	0.508	0.003	0.78	0.27	2.19	0.10
2020 Apr	Mean	109.10	130.40	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.33	0.01	0.75	0.07	0.36	0.54	0.17	0.006	0.009	0.24	0.83	12.38	0.000	0.001	0.24	0.02	0.37	0.005	0.09	0.00	0.03	9.49	0.03	1.62	1.94	0.19	27.85	0.04	0.474	0.003	0.73	0.25	2.10	0.09
2020 May	Mean	113.00	135.07	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.52	0.01	0.78	0.09	0.37	0.56	0.18	0.006	0.010	0.25	0.86	12.82	0.000	0.001	0.24	0.03	0.43	0.005	0.10	0.00	0.03	9.83	0.04	1.74	2.01	0.20	29.06	0.04	0.491	0.003	0.76	0.26	2.20	0.10
2020 Jun	Mean	114.66	137.04	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.03	0.01	0.79	0.13	0.37	0.57	0.18	0.006	0.010	0.25	0.87	13.01	0.000	0.001	0.25	0.03	0.54	0.005	0.10	0.00	0.03	9.97	0.04	1.93	2.04	0.20	30.07	0.04	0.498	0.003	0.78	0.27	2.21	0.10
2020 Jul	Mean	115.20	137.69	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.19	0.01	0.80	0.18	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.07	0.001	0.001	0.25	0.03	0.66	0.005	0.10	0.00	0.03	10.02	0.05	2.11	2.05	0.20	30.79	0.04	0.501	0.003	0.78	0.27	2.23	0.10
2020 Aug	Mean	115.44	137.98	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.26	0.02	0.80	0.20	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.10	0.001	0.001	0.25	0.03	0.71	0.005	0.10	0.00	0.03	10.04	0.05	2.20	2.05	0.20	31.13	0.04	0.502	0.003	0.79	0.27	2.23	0.10
2020 Sep	Mean	115.21	137.70	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.19	0.02	0.80	0.21	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.07	0.001	0.001	0.25	0.03	0.74	0.005	0.10	0.00	0.03	10.02	0.05	2.25	2.05	0.20	31.25	0.04	0.501	0.003	0.79	0.27	2.21	0.10
2020 Oct	Mean	115.31	137.83	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.23	0.02	0.80	0.24	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.08	0.001	0.001	0.25	0.03	0.80	0.005	0.10	0.00	0.03	10.03	0.05	2.35	2.05	0.20	31.62	0.04	0.501	0.003	0.79	0.27	2.22	0.10
2020 Nov	Mean	118.24	141.33	0.01	0.01	0.14	0.05	0.04	0.02	0.01	36.12	0.02	0.82	0.33	0.39	0.60	0.19	0.006	0.010	0.26	0.90	13.41	0.001	0.001	0.26	0.03	1.05	0.005	0.10	0.00	0.03	10.28	0.06	2.74	2.10	0.21	33.58	0.04	0.514	0.003	0.82	0.28	2.30	0.10
2020 Dec	Mean	123.89	148.07	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.84	0.02	0.86	0.57	0.41	0.64	0.19	0.007	0.011	0.27	0.94	14.05	0.001	0.002	0.27	0.03	1.66	0.005	0.11	0.00	0.04	10.77	0.09	3.71	2.20	0.22	38.05	0.04	0.539	0.004	0.89	0.29	2.46	0.11
2021 Jan	Mean	126.97	151.75	0.01	0.01	0.16	0.06	0.04	0.03	0.01	38.79	0.03	0.88	1.03	0.42	0.67	0.20	0.007	0.011	0.28	0.96	14.40	0.002	0.002	0.27	0.03	2.83	0.006	0.11	0.00	0.04	11.04	0.14	5.47	2.26	0.22	44.71	0.04	0.552	0.004	0.96	0.30	2.64	0.11
2021 Feb	Mean	123.16	147.21	0.01	0.01	0.17	0.05	0.04	0.03	0.01	37.62	0.04	0.85	1.43	0.41	0.67	0.19	0.007	0.011	0.27	0.94	13.97	0.003	0.003	0.27	0.03	3.84	0.005	0.11	0.00	0.04	10.71	0.17	6.93	2.19	0.21	48.96	0.04	0.535	0.004	0.99	0.30	2.68	0.11
2021 Mar	Mean	113.43	135.58	0.01	0.01	0.15	0.05	0.04	0.02	0.00	34.65	0.03	0.78	0.97	0.38	0.61	0.18	0.006	0.010	0.25	0.86	12.87	0.002	0.002	0.25	0.03	2.67	0.005	0.10	0.00	0.04	9.87	0.13	5.08	2.02	0.20	40.62	0.04	0.493	0.004	0.87	0.27	2.42	0.10
2021 Apr	Mean	107.65	128.71	0.01	0.01	0.13	0.05	0.04	0.02	0.00	32.89	0.02	0.74	0.38	0.35	0.56	0.17	0.006	0.009	0.24	0.82	12.22	0.001	0.001	0.23	0.02	1.17	0.005	0.09	0.00	0.03	9.38	0.06	2.74	1.92	0.19	31.47	0.04	0.468	0.003	0.76	0.25	2.30	0.09
2021 May	Mean	111.96	133.86	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.21	0.02	0.78	0.33	0.37	0.58	0.18	0.006	0.010	0.25	0.85	12.71	0.001	0.001	0.24	0.03	1.06	0.005	0.10	0.00	0.03	9.76	0.06	2.59	1.99	0.19	31.84	0.04	0.486	0.003	0.78	0.26	2.42	0.10
2021 Jun	Mean	114.16	136.47	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.88	0.02	0.79	0.53	0.38	0.59	0.18	0.006	0.010	0.25	0.87	12.95	0.001	0.002	0.25	0.03	1.54	0.005	0.10	0.00	0.03	9.94	0.08	3.38	2.03	0.20	34.97	0.04	0.496	0.003	0.82	0.27	2.38	0.10
2021 Jul	Mean	114.71	137.11	0.01	0.01	0.14	0.05	0.04	0.02	0.01	35.04	0.03	0.79	0.77	0.38	0.60	0.18	0.006	0.010	0.25	0.87	13.01	0.002	0.002	0.25	0.03	2.15	0.005	0.10	0.00	0.04	9.98	0.11	4.31	2.04	0.20	38.26	0.04	0.499	0.004	0.85	0.27	2.40	0.10
2021 Aug	Mean	114.85	137.28	0.01	0.01	0.15	0.05	0.04	0.02	0.01	35.09	0.03	0.79	0.91	0.38	0.61	0.18	0.006	0.010	0.25	0.87	13.03	0.002	0.002	0.25	0.03	2.51	0.005	0.10	0.00	0.04	9.99	0.12	4.86	2.04	0.20	40.15	0.04	0.499	0.004	0.87	0.27	2.42	0.10
2021 Sep	Mean	114.48	136.83	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.97	0.03	0.79	1.04	0.38	0.61	0.18	0.006	0.010	0.25	0.87	12.99	0.002	0.002	0.25	0.03	2.82	0.005	0.10	0.00	0.04	9.96	0.13	5.32	2.04	0.20	41.69	0.04	0.498	0.004	0.88	0.27	2.44	0.10
2021 Oct	Mean	114.46	136.81	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.96	0.03	0.79	1.26	0.38	0.62	0.18	0.006	0.010	0.25	0.87	12.98	0.002	0.003	0.25	0.03	3.40	0.005	0.10	0.00	0.04	9.96	0.16	6.17	2.04	0.20	44.60	0.04	0.498	0.004	0.91	0.28	2.49	0.10
2021 Nov	Mean	117.08	139.94	0.01	0.01	0.17	0.05	0.04	0.04	0.01	35.77	0.04	0.81	1.73	0.40	0.66	0.18	0.007	0.010	0.26	0.89	13.28	0.003	0.003	0.25	0.03	4.57	0.005	0.10	0.00	0.04	10.18	0.20	7.94	2.08	0.20	51.21	0.04	0.509	0.004	0.98	0.29	2.68	0.10
2021 Dec	Mean	122.35	146.24	0.01	0.01	0.20	0.06	0.05	0.05	0.01	37.38	0.06	0.85	2.78	0.42	0.73	0.19	0.007	0.011	0.27	0.93	13.88	0.005	0.005	0.26	0.03	7.25	0.005	0.11	0.00	0.05	10.64	0.31	11.95	2.18	0.21	66.09	0.04	0.532	0.005	1.14	0.31	3.05	0.11
2022 Jan	Mean	123.79	147.97	0.01	0.01	0.25	0.06	0.05	0.07	0.01	37.82	0.09	0.86	4.43	0.44	0.82	0.19	0.008	0.011	0.27	0.94	14.04	0.008	0.007	0.27	0.03	11.44	0.005	0.11	0.00	0.07	10.77	0.47	15.22	2.20	0.22	77.59	0.04	0.538	0.005	1.35	0.32	3.52	0.11
2022 Feb	Mean	119.09	142.35	0.01	0.01	0.28	0.06	0.06	0.07	0.01	36.38	0.11	0.82	5.68	0.44	0.86	0.19	0.008	0.010	0.26	0.90	13.51	0.010	0.009	0.26	0.03	14.60	0.005	0.10	0.00	0.08	10.36	0.60	16.42	2.12	0.21	80.78	0.04	0.518	0.006	1.47	0.32	3.78	0.10
2022 Mar	Mean	110.31	131.86	0.01	0.01	0.24	0.05	0.05	0.06	0.00	33.70	0.09	0.76	4.54	0.40	0.76	0.17	0.007	0.010	0.24	0.84																							

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr	
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium	
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2023 Aug	Mean	109.08	130.39	0.01	0.01	0.33	0.05	0.06	0.10	0.00	33.33	0.16	0.75	7.98	0.42	0.92	0.17	0.008	0.010	0.24	0.83	12.38	0.015	0.012	0.24	0.03	20.42	0.005	0.09	0.00	0.10	9.49	0.83	24.28	1.94	0.19	105.79	0.04	0.474	0.007	1.68	0.32	4.32	0.09	
2023 Sep	Mean	108.41	129.59	0.01	0.01	0.34	0.05	0.07	0.11	0.00	33.12	0.17	0.75	8.65	0.43	0.95	0.17	0.008	0.009	0.24	0.82	12.30	0.016	0.013	0.23	0.02	22.12	0.005	0.09	0.00	0.10	9.43	0.89	26.20	1.93	0.19	112.24	0.04	0.471	0.007	1.76	0.32	4.46	0.09	
2023 Oct	Mean	108.19	129.33	0.01	0.01	0.36	0.05	0.07	0.12	0.00	33.05	0.18	0.75	9.19	0.43	0.97	0.17	0.008	0.009	0.24	0.82	12.28	0.017	0.014	0.23	0.02	23.46	0.005	0.09	0.00	0.11	9.41	0.95	27.73	1.92	0.19	117.46	0.04	0.470	0.007	1.82	0.32	4.58	0.09	
2023 Nov	Mean	110.45	132.03	0.01	0.01	0.37	0.05	0.07	0.12	0.00	33.74	0.19	0.76	9.64	0.44	1.00	0.17	0.009	0.010	0.24	0.84	12.53	0.018	0.014	0.24	0.03	24.62	0.005	0.10	0.00	0.11	9.61	0.99	29.06	1.96	0.19	122.48	0.04	0.480	0.008	1.89	0.33	4.78	0.10	
2023 Dec	Mean	115.19	137.69	0.02	0.01	0.42	0.06	0.08	0.15	0.01	35.19	0.22	0.80	11.54	0.48	1.12	0.18	0.009	0.010	0.25	0.88	13.07	0.021	0.017	0.25	0.03	29.44	0.005	0.10	0.00	0.13	10.02	1.18	34.58	2.05	0.20	142.44	0.04	0.501	0.009	2.15	0.36	5.36	0.10	
2024 Jan	Mean	115.18	137.67	0.02	0.01	0.51	0.06	0.09	0.20	0.01	35.19	0.28	0.80	14.68	0.50	1.26	0.18	0.010	0.010	0.25	0.88	13.07	0.027	0.021	0.25	0.03	37.40	0.005	0.24	0.00	0.16	10.02	1.50	47.71	2.05	0.20	187.56	0.04	0.501	0.010	2.52	0.38	6.18	0.10	
2024 Feb	Mean	107.47	128.46	0.02	0.01	0.52	0.06	0.09	0.23	0.00	32.83	0.29	0.74	15.34	0.48	1.26	0.17	0.010	0.009	0.24	0.82	12.19	0.028	0.022	0.23	0.02	39.06	0.005	0.39	0.00	0.16	9.35	1.56	53.79	1.91	0.19	206.91	0.04	0.467	0.010	2.55	0.37	6.24	0.09	
2024 Mar	Mean	104.41	124.82	0.01	0.01	0.38	0.05	0.07	0.15	0.00	31.90	0.20	0.72	10.16	0.43	1.01	0.16	0.009	0.009	0.23	0.79	11.85	0.019	0.015	0.23	0.02	25.96	0.005	0.30	0.00	0.11	9.10	1.04	36.49	1.86	0.18	146.86	0.03	0.454	0.008	1.91	0.32	5.01	0.09	
2024 Apr	Mean	100.62	120.38	0.01	0.01	0.24	0.05	0.05	0.08	0.00	30.76	0.11	0.70	5.04	0.37	0.78	0.16	0.008	0.009	0.22	0.77	11.44	0.010	0.008	0.22	0.02	13.03	0.004	0.19	0.00	0.07	8.81	0.52	18.52	1.79	0.17	84.48	0.03	0.437	0.006	1.27	0.27	4.08	0.09	
2024 May	Mean	104.01	124.45	0.01	0.01	0.22	0.05	0.05	0.07	0.00	31.80	0.09	0.72	4.14	0.38	0.76	0.16	0.008	0.009	0.23	0.80	11.83	0.008	0.006	0.22	0.02	10.77	0.005	0.18	0.00	0.06	9.11	0.43	15.42	1.86	0.18	74.54	0.03	0.451	0.005	1.18	0.28	4.01	0.09	
2024 Jun	Mean	108.00	129.15	0.01	0.01	0.28	0.05	0.06	0.10	0.00	33.00	0.13	0.75	6.29	0.41	0.85	0.17	0.008	0.009	0.24	0.82	12.26	0.012	0.010	0.23	0.02	16.18	0.005	0.23	0.00	0.08	9.43	0.65	23.06	1.92	0.19	101.48	0.04	0.469	0.006	1.47	0.30	4.21	0.09	
2024 Jul	Mean	107.64	128.68	0.01	0.01	0.35	0.05	0.07	0.14	0.00	32.89	0.17	0.74	9.00	0.43	0.97	0.17	0.009	0.009	0.24	0.82	12.22	0.017	0.013	0.23	0.02	23.01	0.005	0.28	0.00	0.10	9.38	0.93	32.52	1.92	0.19	133.86	0.04	0.468	0.007	1.79	0.32	4.70	0.09	
2024 Aug	Mean	106.72	127.57	0.01	0.01	0.39	0.05	0.07	0.16	0.00	32.60	0.20	0.74	10.60	0.44	1.04	0.17	0.009	0.009	0.23	0.81	12.11	0.019	0.016	0.23	0.02	27.07	0.005	0.32	0.00	0.12	9.29	1.09	38.10	1.90	0.19	152.84	0.04	0.464	0.008	1.98	0.33	5.06	0.09	
2024 Sep	Mean	105.82	126.49	0.02	0.01	0.41	0.05	0.07	0.17	0.00	32.33	0.22	0.73	11.36	0.44	1.06	0.17	0.009	0.009	0.23	0.80	12.01	0.021	0.017	0.23	0.02	28.97	0.005	0.33	0.00	0.12	9.21	1.16	40.72	1.88	0.18	161.66	0.04	0.460	0.008	2.06	0.34	5.19	0.09	
2024 Oct	Mean	105.42	126.02	0.02	0.01	0.42	0.05	0.08	0.18	0.00	32.21	0.22	0.73	11.80	0.45	1.08	0.17	0.009	0.009	0.23	0.80	11.96	0.021	0.017	0.23	0.02	30.10	0.005	0.34	0.00	0.13	9.17	1.21	42.27	1.87	0.18	166.90	0.04	0.458	0.008	2.11	0.34	5.29	0.09	
2024 Nov	Mean	107.45	128.45	0.02	0.01	0.43	0.05	0.08	0.18	0.00	32.83	0.23	0.74	12.26	0.46	1.12	0.17	0.009	0.009	0.24	0.82	12.19	0.022	0.018	0.23	0.02	31.25	0.005	0.35	0.00	0.13	9.35	1.25	43.86	1.91	0.19	172.79	0.04	0.467	0.009	2.18	0.35	5.48	0.09	
2024 Dec	Mean	109.48	130.87	0.02	0.01	0.51	0.06	0.09	0.22	0.00	33.45	0.28	0.76	14.94	0.49	1.25	0.17	0.010	0.010	0.24	0.83	12.42	0.027	0.022	0.24	0.03	38.04	0.005	0.41	0.00	0.16	9.53	1.52	53.18	1.95	0.19	205.24	0.04	0.476	0.010	2.52	0.37	6.21	0.10	
2025 Jan	Mean	112.59	134.57	0.02	0.01	0.47	0.06	0.08	0.17	0.00	34.39	0.25	0.78	13.38	0.48	1.19	0.18	0.010	0.010	0.25	0.86	12.77	0.024	0.018	0.24	0.03	34.37	0.005	0.79	0.00	0.14	9.79	1.38	38.71	2.00	0.20	164.18	0.04	0.489	0.009	2.19	0.37	5.79	0.10	
2025 Feb	Mean	113.14	135.23	0.02	0.01	0.46	0.06	0.08	0.15	0.00	34.56	0.25	0.78	12.90	0.48	1.17	0.18	0.010	0.010	0.25	0.86	12.83	0.024	0.017	0.24	0.03	33.23	0.005	0.90	0.00	0.14	9.84	1.33	34.00	2.01	0.20	150.72	0.04	0.492	0.009	2.08	0.37	5.66	0.10	
2025 Mar	Mean	110.68	132.29	0.02	0.01	0.44	0.06	0.08	0.14	0.00	33.81	0.23	0.76	12.05	0.47	1.12	0.17	0.009	0.010	0.24	0.84	12.56	0.022	0.016	0.24	0.03	31.09	0.005	0.87	0.00	0.13	9.62	1.25	30.72	1.97	0.19	139.17	0.04	0.481	0.009	1.96	0.35	5.38	0.10	
2025 Apr	Mean	258.87	309.54	0.02	0.02	0.62	0.12	0.13	0.16	0.01	79.10	0.27	1.79	13.00	0.96	1.95	0.41	0.019	0.023	0.57	1.97	29.39	0.025	0.018	0.56	0.06	33.95	0.011	1.06	0.00	0.18	22.58	1.37	33.97	4.61	0.45	182.01	0.09	1.125	0.014	3.02	0.71	9.24	0.22	
2025 May	Mean	3453.53	4132.73	0.20	0.25	5.14	1.55	1.27	0.92	0.15	1055.91	1.58	24.02	54.70	11.77	21.17	5.44	0.235	0.304	7.61	26.48	392.79	0.126	0.089	7.46	0.80	151.40	0.150	6.36	0.00	1.36	302.85	5.99	166.50	61.65	5.99	1331.22	1.16	14.981	0.140	28.21	8.50	104.97	3.00	
2025 Jun	Mean	2194.70	2625.84	0.12	0.15	3.07	0.98	0.78	0.50	0.10	670.94	0.84	15.25	27.10	7.41	12.95	3.45	0.144	0.193	4.83	16.80	249.51	0.065	0.047	4.74	0.51	76.14	0.095	3.53	0.00	0.80	192.21	3.07	87.62	39.15	3.81	776.29	0.73	9.524	0.084	17.16	5.34	62.39	1.90	
2025 Jul	Mean	132.46	158.34	0.01	0.01	0.28	0.06	0.06	0.07	0.01	40.47	0.11	0.92	5.35	0.48	0.92	0.21	0.009	0.012	0.29	1.01	15.03	0.010	0.008	0.29	0.03	13.97	0.006	0.48	0.00	0.08	11.53	0.57	14.93	2.36	0.23	83.07	0.04	0.576	0.006	1.42	0.35	4.09	0.12	
2025 Aug	Mean	143.00	170.94	0.01	0.01	0.35	0.07	0.07	0.09	0.01	43.69	0.15	0.99	7.50	0.53	1.07	0.22	0.010	0.012	0.31	1.09	16.23	0.014	0.010	0.31	0.03	19.49	0.006	0.65	0.00	0.10	12.44	0.79	20.63	2.54	0.25	106.58	0.05	0.622	0.008	1.72	0.39	4.87	0.12	
2025 Sep	Mean	157.12	187.90	0.02	0.01	0.40	0.07	0.08	0.11	0.01	48.02	0.18	1.09	8.85	0.59	1.23	0.25	0.012	0.014	0.35	1.20	17.85	0.017	0.012	0.34	0.04	23.06	0.007	0.75	0.00	0.12	13.72	0.92	24.17	2.80	0.27	122.74	0.05	0.682	0.009	1.95	0.44	5.99	0.14	
2025 Oct	Mean	133.00	158.97	0.01	0.01	0.37	0.06	0.07	0.																																				

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr	
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium	
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2027 Mar	Mean	150.14	179.68	0.02	0.01	0.66	0.08	0.12	0.20	0.01	45.91	0.37	1.04	18.27	0.66	1.71	0.24	0.014	0.013	0.33	1.15	17.08	0.035	0.025	0.32	0.03	47.23	0.007	2.12	0.00	0.20	13.17	1.93	44.37	2.68	0.26	196.04	0.05	0.651	0.014	2.98	0.50	8.82	0.13	
2027 Apr	Mean	145.12	173.74	0.02	0.01	0.55	0.07	0.10	0.16	0.01	44.39	0.30	1.01	14.42	0.61	1.51	0.23	0.013	0.013	0.32	1.12	16.52	0.028	0.020	0.31	0.03	37.47	0.006	1.69	0.00	0.17	12.77	1.52	34.85	2.59	0.25	159.61	0.05	0.629	0.012	2.51	0.46	7.88	0.13	
2027 May	Mean	2391.22	2867.06	0.15	0.20	4.00	1.10	0.92	0.79	0.10	732.15	1.70	16.81	53.90	8.33	16.89	3.80	0.190	0.215	5.30	18.61	273.11	0.133	0.077	5.17	0.57	152.47	0.104	6.86	0.00	1.10	212.51	5.35	133.16	42.97	4.12	989.00	0.80	10.335	0.118	21.02	6.10	92.68	2.07	
2027 Jun	Mean	2913.54	3493.96	0.17	0.24	4.56	1.33	1.08	0.85	0.13	892.20	1.89	20.51	54.38	10.05	20.19	4.64	0.232	0.263	6.46	22.70	332.91	0.143	0.078	6.30	0.69	157.61	0.126	7.04	0.00	1.24	259.27	5.26	134.61	52.39	5.02	1102.23	0.98	12.587	0.140	24.33	7.34	112.05	2.52	
2027 Jul	Mean	123.14	147.22	0.01	0.01	0.34	0.06	0.07	0.09	0.01	37.62	0.16	0.85	7.46	0.47	0.99	0.19	0.009	0.011	0.27	0.94	13.98	0.014	0.011	0.27	0.03	19.35	0.005	0.94	0.00	0.10	10.73	0.81	19.12	2.19	0.21	95.77	0.04	0.535	0.007	1.63	0.35	4.60	0.11	
2027 Aug	Mean	146.04	174.76	0.02	0.01	0.45	0.07	0.09	0.12	0.01	44.65	0.23	1.02	10.86	0.58	1.31	0.23	0.012	0.013	0.32	1.12	16.61	0.021	0.015	0.32	0.03	28.26	0.006	1.33	0.00	0.14	12.81	1.16	27.14	2.61	0.25	130.28	0.05	0.633	0.010	2.14	0.43	6.57	0.13	
2027 Sep	Mean	106.71	127.55	0.01	0.01	0.40	0.05	0.07	0.12	0.00	32.60	0.21	0.74	10.43	0.44	1.05	0.17	0.009	0.009	0.23	0.81	12.11	0.020	0.014	0.23	0.02	26.85	0.005	1.27	0.00	0.12	9.28	1.12	26.10	1.90	0.19	118.28	0.04	0.464	0.008	1.85	0.34	5.00	0.09	
2027 Oct	Mean	117.06	139.93	0.02	0.01	0.44	0.06	0.08	0.13	0.01	35.76	0.23	0.81	11.55	0.49	1.16	0.18	0.010	0.010	0.26	0.89	13.28	0.022	0.016	0.25	0.03	29.76	0.005	1.40	0.00	0.13	10.19	1.24	28.81	2.08	0.20	130.48	0.04	0.509	0.009	2.04	0.37	5.57	0.10	
2027 Nov	Mean	109.97	131.44	0.02	0.01	0.47	0.06	0.08	0.14	0.00	33.59	0.25	0.76	12.82	0.47	1.18	0.17	0.010	0.010	0.24	0.84	12.47	0.024	0.018	0.24	0.03	32.97	0.005	1.55	0.00	0.14	9.56	1.37	31.82	1.96	0.19	140.17	0.04	0.478	0.009	2.13	0.36	5.72	0.10	
2027 Dec	Mean	112.29	134.22	0.02	0.01	0.57	0.06	0.10	0.18	0.00	34.30	0.32	0.78	16.39	0.51	1.37	0.18	0.011	0.010	0.25	0.85	12.74	0.031	0.022	0.24	0.03	42.11	0.005	1.96	0.00	0.18	9.77	1.75	40.44	2.00	0.20	172.49	0.04	0.488	0.011	2.54	0.40	6.79	0.10	
2028 Jan	Mean	111.90	133.75	0.02	0.01	0.63	0.06	0.10	0.21	0.00	34.18	0.36	0.77	18.51	0.53	1.47	0.18	0.011	0.010	0.25	0.85	12.69	0.035	0.025	0.24	0.03	47.49	0.005	2.38	0.00	0.20	9.73	1.97	47.49	1.99	0.19	197.42	0.04	0.487	0.012	2.78	0.41	7.37	0.10	
2028 Feb	Mean	109.84	131.28	0.02	0.01	0.63	0.06	0.10	0.22	0.00	33.55	0.36	0.76	18.77	0.53	1.47	0.17	0.011	0.010	0.24	0.83	12.46	0.035	0.026	0.24	0.03	48.14	0.005	2.60	0.00	0.20	9.55	1.99	50.17	1.95	0.19	205.72	0.04	0.478	0.012	2.81	0.41	7.39	0.10	
2028 Mar	Mean	106.48	127.27	0.02	0.01	0.61	0.06	0.10	0.21	0.00	32.53	0.35	0.74	18.05	0.51	1.42	0.17	0.011	0.009	0.23	0.81	12.08	0.034	0.025	0.23	0.02	46.27	0.005	2.56	0.00	0.19	9.26	1.91	48.95	1.89	0.19	200.20	0.04	0.463	0.012	2.71	0.40	7.12	0.09	
2028 Apr	Mean	129.80	155.31	0.02	0.01	0.54	0.07	0.10	0.18	0.01	39.68	0.31	0.90	14.90	0.56	1.44	0.20	0.012	0.011	0.29	0.99	14.76	0.029	0.020	0.28	0.03	38.59	0.006	2.13	0.00	0.17	11.38	1.56	40.38	2.32	0.23	173.71	0.04	0.563	0.011	2.49	0.43	7.57	0.11	
2028 May	Mean	2149.82	2579.54	0.13	0.21	3.84	1.00	0.85	0.90	0.09	658.60	2.09	15.18	59.62	7.58	17.24	3.43	0.205	0.195	4.78	16.82	245.94	0.159	0.075	4.65	0.51	173.75	0.093	7.53	0.00	1.08	192.04	5.19	139.35	38.73	3.70	955.34	0.72	9.278	0.130	19.44	5.62	108.46	1.86	
2028 Jun	Mean	2255.05	2706.68	0.13	0.22	3.85	1.05	0.86	0.88	0.10	691.00	2.12	15.95	56.41	7.90	18.03	3.60	0.218	0.206	5.02	17.69	258.16	0.159	0.069	4.88	0.54	167.73	0.098	6.88	0.00	1.08	201.88	4.71	126.91	40.67	3.88	933.16	0.76	9.726	0.136	19.63	5.85	115.32	1.95	
2028 Jul	Mean	109.01	130.32	0.01	0.01	0.33	0.05	0.06	0.10	0.00	33.31	0.16	0.75	7.90	0.43	0.94	0.17	0.008	0.010	0.24	0.83	12.37	0.015	0.011	0.24	0.03	20.41	0.005	1.21	0.00	0.10	9.50	0.84	22.71	1.94	0.19	104.31	0.04	0.474	0.007	1.60	0.32	4.44	0.09	
2028 Aug	Mean	106.89	127.77	0.01	0.01	0.40	0.05	0.07	0.13	0.00	32.65	0.21	0.74	10.59	0.44	1.05	0.17	0.009	0.009	0.23	0.81	12.13	0.020	0.015	0.23	0.02	27.23	0.005	1.60	0.00	0.12	9.30	1.12	30.18	1.90	0.19	130.84	0.04	0.465	0.008	1.89	0.34	5.07	0.09	
2028 Sep	Mean	106.59	127.42	0.02	0.01	0.42	0.05	0.08	0.14	0.00	32.56	0.23	0.74	11.43	0.45	1.09	0.17	0.009	0.009	0.23	0.81	12.09	0.022	0.016	0.23	0.02	29.36	0.005	1.72	0.00	0.13	9.28	1.21	32.46	1.90	0.19	139.02	0.04	0.463	0.008	1.99	0.34	5.30	0.09	
2028 Oct	Mean	132.88	158.91	0.02	0.01	0.48	0.07	0.09	0.15	0.01	40.61	0.25	0.92	12.38	0.54	1.30	0.21	0.011	0.012	0.29	1.01	15.09	0.024	0.017	0.29	0.03	31.98	0.006	1.85	0.00	0.14	11.60	1.31	34.91	2.37	0.23	153.50	0.04	0.577	0.010	2.25	0.41	6.42	0.12	
2028 Nov	Mean	109.42	130.78	0.02	0.01	0.48	0.06	0.08	0.17	0.00	33.42	0.26	0.76	13.53	0.48	1.21	0.17	0.010	0.010	0.24	0.83	12.41	0.026	0.019	0.24	0.03	34.73	0.005	2.01	0.00	0.15	9.52	1.43	38.03	1.95	0.19	160.03	0.04	0.476	0.010	2.24	0.37	5.90	0.10	
2028 Dec	Mean	112.47	134.43	0.02	0.01	0.58	0.06	0.10	0.20	0.00	34.36	0.33	0.78	16.89	0.52	1.39	0.18	0.011	0.010	0.25	0.85	12.76	0.032	0.023	0.24	0.03	43.31	0.005	2.49	0.00	0.18	9.78	1.79	47.07	2.00	0.20	193.57	0.04	0.489	0.011	2.63	0.40	6.90	0.10	
2029 Jan	Mean	111.78	133.61	0.02	0.01	0.65	0.06	0.11	0.24	0.00	34.15	0.37	0.77	19.42	0.54	1.50	0.17	0.012	0.010	0.25	0.85	12.68	0.036	0.026	0.24	0.03	49.81	0.005	2.90	0.00	0.20	9.72	2.04	54.50	1.99	0.19	220.98	0.04	0.486	0.012	2.89	0.42	7.58	0.10	
2029 Feb	Mean	109.21	130.52	0.02	0.01	0.66	0.06	0.11	0.25	0.00	33.36	0.39	0.75	20.19	0.54	1.53	0.17	0.012	0.009	0.24	0.83	12.39	0.038	0.027	0.24	0.02	51.84	0.005	3.06	0.00	0.21	9.50	2.12	57.16	1.94	0.19	230.67	0.04	0.475	0.013	2.94	0.42	7.74	0.09	
2029 Mar	Mean	105.63	126.25	0.02	0.01	0.64	0.06	0.11	0.24	0.00	32.27	0.38	0.73	19.64	0.52	1.48	0.17	0.011	0.009	0.23	0.80	11.98	0.037	0.027	0.23	0.02	50.45	0.005	3.00	0.00	0.20	9.18	2.06	55.80	1.88	0.18	225.19	0.04	0.459	0.012	2.85	0.41	7.51	0.09	
2029 Apr	Mean	99.67	119.14	0.02	0.01	0.53	0.05	0.09	0.19	0.00	30.45	0.30	0.69	15.54	0.46	1.26	0.16	0.010	0.009	0.22	0.76	11.31	0.029	0.021	0.22	0.02	39.98	0.004	2.40	0.00	0.16	8.68	1.63	44.46	1.77	0.17	182.52	0.03	0.433	0.010	2.36	0.36	6.32	0.09	
2029 May	Mean	2179.03	2614.34	0.																																									

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2030 Oct	Mean	105.20	125.75	0.02	0.01	0.45	0.05	0.08	0.18	0.00	32.14	0.25	0.73	12.62	0.46	1.14	0.16	0.009	0.009	0.23	0.80	11.94	0.024	0.018	0.23	0.02	32.41	0.005	2.21	0.00	0.14	9.15	1.34	40.84	1.87	0.18	168.56	0.04	0.457	0.009	2.10	0.35	5.57	0.09
2030 Nov	Mean	108.78	130.02	0.02	0.01	0.51	0.06	0.09	0.20	0.00	33.23	0.28	0.75	14.58	0.49	1.25	0.17	0.010	0.009	0.24	0.83	12.34	0.027	0.020	0.23	0.02	37.43	0.005	2.53	0.00	0.16	9.46	1.54	46.85	1.93	0.19	191.15	0.04	0.473	0.010	2.34	0.37	6.18	0.09
2030 Dec	Mean	111.68	133.49	0.02	0.01	0.61	0.06	0.10	0.25	0.00	34.12	0.35	0.77	18.22	0.53	1.45	0.17	0.011	0.010	0.24	0.85	12.67	0.034	0.025	0.24	0.03	46.74	0.005	3.14	0.00	0.19	9.71	1.92	58.24	1.99	0.19	232.88	0.04	0.486	0.012	2.77	0.41	7.25	0.10
2031 Jan	Mean	110.97	132.64	0.02	0.01	0.68	0.06	0.11	0.29	0.00	33.90	0.40	0.77	20.69	0.55	1.57	0.17	0.012	0.010	0.24	0.84	12.59	0.039	0.028	0.24	0.03	53.02	0.005	3.62	0.00	0.21	9.65	2.18	68.71	1.97	0.19	262.24	0.04	0.482	0.013	3.04	0.43	7.95	0.10
2031 Feb	Mean	108.35	129.50	0.03	0.01	0.70	0.06	0.11	0.32	0.00	33.10	0.41	0.75	21.32	0.55	1.59	0.17	0.012	0.009	0.24	0.82	12.29	0.040	0.029	0.23	0.02	54.60	0.005	3.79	0.00	0.22	9.42	2.25	73.60	1.93	0.19	270.70	0.04	0.471	0.013	3.10	0.43	8.09	0.09
2031 Mar	Mean	104.85	125.32	0.02	0.01	0.67	0.06	0.11	0.31	0.00	32.03	0.40	0.72	20.53	0.53	1.53	0.16	0.012	0.009	0.23	0.80	11.89	0.039	0.028	0.23	0.02	52.59	0.005	3.67	0.00	0.21	9.12	2.17	71.84	1.86	0.18	261.30	0.03	0.456	0.013	2.99	0.42	7.81	0.09
2031 Apr	Mean	147.22	176.38	0.02	0.02	0.69	0.08	0.12	0.30	0.01	45.05	0.41	1.03	19.55	0.66	1.85	0.23	0.017	0.013	0.33	1.14	16.79	0.039	0.026	0.32	0.03	50.81	0.006	3.43	0.00	0.22	13.02	2.03	67.25	2.64	0.25	254.39	0.05	0.637	0.015	3.11	0.51	10.89	0.13
2031 May	Mean	2063.63	2476.21	0.14	0.22	3.88	0.96	0.85	1.15	0.09	632.21	2.09	14.57	64.63	7.37	17.14	3.29	0.216	0.188	4.59	16.15	236.10	0.176	0.085	4.46	0.49	183.94	0.089	10.42	0.00	1.13	184.38	5.96	199.73	37.18	3.55	1103.11	0.70	8.905	0.135	19.81	5.43	117.88	1.78
2031 Jun	Mean	2413.55	2895.91	0.15	0.25	4.11	1.12	0.93	1.12	0.10	739.38	2.14	17.04	60.13	8.47	19.23	3.85	0.247	0.219	5.36	18.88	276.10	0.176	0.079	5.22	0.57	175.43	0.104	9.52	0.00	1.18	215.56	5.38	180.76	43.48	4.15	1114.83	0.81	10.417	0.149	21.46	6.22	132.49	2.08
2031 Jul	Mean	180.17	215.63	0.02	0.02	0.49	0.09	0.10	0.18	0.01	55.09	0.25	1.25	11.15	0.69	1.55	0.28	0.015	0.016	0.40	1.38	20.50	0.023	0.016	0.39	0.04	29.21	0.008	2.05	0.00	0.15	15.82	1.17	39.93	3.22	0.31	169.32	0.06	0.781	0.012	2.41	0.51	8.37	0.16
2031 Aug	Mean	105.96	126.67	0.02	0.01	0.43	0.05	0.08	0.19	0.00	32.37	0.23	0.73	11.80	0.45	1.11	0.17	0.009	0.009	0.23	0.81	12.02	0.022	0.017	0.23	0.02	30.32	0.005	2.19	0.00	0.13	9.22	1.26	42.92	1.88	0.18	163.29	0.04	0.461	0.009	2.03	0.34	5.43	0.09
2031 Sep	Mean	104.61	125.05	0.02	0.01	0.46	0.05	0.08	0.20	0.00	31.96	0.25	0.72	12.96	0.46	1.16	0.16	0.009	0.009	0.23	0.80	11.87	0.025	0.018	0.23	0.02	33.26	0.005	2.40	0.00	0.14	9.10	1.38	47.08	1.86	0.18	176.65	0.03	0.455	0.009	2.15	0.35	5.70	0.09
2031 Oct	Mean	104.06	124.39	0.02	0.01	0.49	0.05	0.08	0.22	0.00	31.79	0.27	0.72	13.84	0.46	1.20	0.16	0.010	0.009	0.23	0.79	11.81	0.026	0.019	0.22	0.02	35.48	0.005	2.56	0.00	0.15	9.05	1.47	50.22	1.85	0.18	186.83	0.03	0.452	0.010	2.24	0.36	5.90	0.09
2031 Nov	Mean	107.44	128.42	0.02	0.01	0.55	0.06	0.09	0.25	0.00	32.82	0.31	0.74	16.05	0.49	1.32	0.17	0.010	0.009	0.24	0.82	12.19	0.030	0.022	0.23	0.02	41.13	0.005	2.97	0.00	0.17	9.34	1.70	58.26	1.91	0.19	213.87	0.04	0.467	0.011	2.52	0.38	6.58	0.09
2031 Dec	Mean	109.93	131.39	0.02	0.01	0.67	0.06	0.11	0.32	0.00	33.58	0.39	0.76	20.39	0.54	1.55	0.17	0.012	0.010	0.24	0.84	12.47	0.038	0.028	0.24	0.03	52.19	0.005	3.77	0.00	0.21	9.56	2.15	73.95	1.95	0.19	265.79	0.04	0.478	0.013	3.02	0.42	7.85	0.10
2032 Jan	Mean	109.09	130.38	0.03	0.01	0.74	0.06	0.12	0.37	0.00	33.32	0.44	0.75	23.06	0.56	1.67	0.17	0.012	0.009	0.24	0.83	12.37	0.043	0.032	0.24	0.02	59.02	0.005	4.28	0.00	0.23	9.49	2.42	86.12	1.94	0.19	296.09	0.04	0.474	0.014	3.32	0.44	8.56	0.09
2032 Feb	Mean	106.71	127.54	0.03	0.01	0.75	0.06	0.12	0.38	0.00	32.60	0.45	0.74	23.45	0.56	1.67	0.17	0.012	0.009	0.23	0.81	12.10	0.044	0.032	0.23	0.02	60.02	0.005	4.36	0.00	0.24	9.28	2.45	90.06	1.90	0.19	298.98	0.04	0.464	0.014	3.34	0.44	8.61	0.09
2032 Mar	Mean	103.40	123.59	0.03	0.01	0.71	0.06	0.12	0.37	0.00	31.59	0.43	0.71	22.40	0.54	1.61	0.16	0.012	0.009	0.23	0.79	11.73	0.042	0.031	0.22	0.02	57.36	0.004	4.17	0.00	0.23	8.99	2.34	86.80	1.84	0.18	285.20	0.03	0.450	0.014	3.19	0.43	8.25	0.09
2032 Apr	Mean	182.02	218.06	0.03	0.02	0.74	0.09	0.13	0.34	0.01	55.70	0.43	1.27	20.37	0.78	2.08	0.29	0.020	0.016	0.40	1.41	20.75	0.041	0.028	0.39	0.04	53.09	0.008	3.72	0.00	0.23	16.09	2.09	77.42	3.26	0.31	273.02	0.06	0.788	0.017	3.43	0.60	12.18	0.16
2032 May	Mean	1989.09	2386.89	0.14	0.21	3.83	0.93	0.83	1.23	0.09	609.40	2.06	14.05	66.01	7.13	16.61	3.18	0.208	0.181	4.42	15.57	227.59	0.174	0.087	4.30	0.47	186.56	0.086	11.02	0.00	1.12	177.78	6.11	223.85	35.84	3.42	1110.42	0.67	8.583	0.130	19.53	5.26	112.77	1.72
2032 Jun	Mean	1332.19	1598.38	0.09	0.14	2.37	0.62	0.53	0.71	0.06	408.10	1.24	9.40	37.01	4.71	10.71	2.13	0.135	0.121	2.96	10.42	152.38	0.103	0.049	2.88	0.32	106.29	0.058	6.14	0.00	0.69	118.95	3.37	123.67	23.99	2.29	663.74	0.45	5.750	0.083	12.30	3.46	72.46	1.15
2032 Jul	Mean	162.36	194.34	0.02	0.01	0.49	0.08	0.09	0.21	0.01	49.65	0.26	1.13	11.96	0.64	1.49	0.26	0.014	0.014	0.36	1.25	18.48	0.024	0.017	0.35	0.04	31.23	0.007	2.24	0.00	0.15	14.26	1.24	46.39	2.90	0.28	174.32	0.05	0.704	0.011	2.38	0.48	8.07	0.14
2032 Aug	Mean	105.53	126.15	0.02	0.01	0.45	0.05	0.08	0.21	0.00	32.24	0.24	0.73	12.39	0.45	1.13	0.17	0.009	0.009	0.23	0.80	11.98	0.023	0.017	0.23	0.02	31.82	0.005	2.36	0.00	0.14	9.19	1.30	49.11	1.88	0.18	169.86	0.04	0.459	0.009	2.09	0.35	5.55	0.09
2032 Sep	Mean	110.62	132.24	0.02	0.01	0.50	0.06	0.09	0.24	0.00	33.80	0.27	0.77	14.01	0.49	1.24	0.17	0.010	0.010	0.24	0.84	12.55	0.026	0.019	0.24	0.03	35.98	0.005	2.65	0.00	0.15	9.63	1.47	55.35	1.97	0.19	189.74	0.04	0.481	0.010	2.30	0.37	6.15	0.10
2032 Oct	Mean	144.51	173.12	0.02	0.02	0.60	0.08	0.11	0.28	0.01	44.22	0.35	1.01	16.56	0.62	1.67	0.23	0.016	0.013	0.32	1.12	16.47	0.033	0.022	0.31	0.03	43.12	0.006	3.05	0.00	0.19	12.77	1.70	63.51	2.59	0.25	222.15	0.05	0.626	0.014	2.77	0.48	9.70	0.13
2032 Nov	Mean	107.61	128.62	0.02	0.01	0.56	0.06	0.09	0.27	0.00	32.87	0.32	0.74	16.40	0.50	1.33	0.17	0.010	0.009	0.24	0.82	12.21	0.031	0.023	0.23	0.02	42.04	0.005	3.08	0.00	0.17	9.36	1.72	64.45	1.91	0.19	216.61	0.04	0.468	0.011	2.55	0.39	6.64	0.09
2032 Dec	Mean	110.14	131.64	0.02																																								

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr	
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium	
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2034 May	Mean	2158.84	2591.42	0.14	0.23	4.12	1.02	0.88	1.33	0.09	661.56	2.50	15.28	72.25	7.71	18.78	3.45	0.232	0.197	4.81	16.94	247.19	0.194	0.086	4.67	0.52	211.05	0.093	10.71	0.00	1.19	193.38	5.97	226.35	38.94	3.71	1094.50	0.73	9.310	0.148	20.38	5.78	126.48	1.86	
2034 Jun	Mean	2022.23	2427.44	0.12	0.22	3.59	0.94	0.79	1.07	0.09	619.70	2.16	14.31	57.39	7.13	17.11	3.23	0.215	0.185	4.50	15.87	231.55	0.163	0.067	4.37	0.48	171.46	0.087	8.09	0.00	1.02	181.14	4.55	169.33	36.48	3.47	910.44	0.68	8.720	0.134	17.95	5.33	115.92	1.74	
2034 Jul	Mean	176.14	210.94	0.02	0.02	0.47	0.08	0.09	0.20	0.01	53.88	0.25	1.23	10.88	0.67	1.56	0.28	0.016	0.016	0.39	1.36	20.07	0.022	0.015	0.38	0.04	28.96	0.008	2.01	0.00	0.14	15.53	1.07	43.21	3.15	0.30	154.80	0.06	0.763	0.012	2.29	0.50	8.71	0.15	
2034 Aug	Mean	153.09	183.36	0.02	0.02	0.53	0.08	0.10	0.25	0.01	46.84	0.30	1.07	14.11	0.62	1.59	0.24	0.015	0.014	0.34	1.18	17.44	0.028	0.019	0.33	0.04	37.12	0.007	2.61	0.00	0.16	13.51	1.40	56.58	2.74	0.26	185.67	0.05	0.663	0.013	2.49	0.48	8.98	0.13	
2034 Sep	Mean	105.77	126.43	0.02	0.01	0.43	0.05	0.08	0.21	0.00	32.31	0.23	0.73	11.94	0.45	1.10	0.17	0.009	0.009	0.23	0.80	12.00	0.022	0.016	0.23	0.02	30.77	0.005	2.30	0.00	0.13	9.21	1.23	49.99	1.88	0.18	157.23	0.04	0.460	0.009	2.00	0.34	5.34	0.09	
2034 Oct	Mean	105.50	126.11	0.02	0.01	0.44	0.05	0.08	0.22	0.00	32.23	0.24	0.73	12.49	0.45	1.12	0.17	0.009	0.009	0.23	0.80	11.97	0.023	0.017	0.23	0.02	32.15	0.005	2.41	0.00	0.14	9.18	1.29	52.32	1.88	0.18	163.39	0.04	0.459	0.009	2.06	0.35	5.46	0.09	
2034 Nov	Mean	108.92	130.19	0.02	0.01	0.51	0.06	0.09	0.26	0.00	33.27	0.28	0.75	14.75	0.48	1.24	0.17	0.010	0.009	0.24	0.83	12.36	0.027	0.020	0.24	0.02	37.92	0.005	2.84	0.00	0.16	9.47	1.52	61.86	1.94	0.19	189.63	0.04	0.474	0.010	2.33	0.37	6.10	0.09	
2034 Dec	Mean	111.97	133.83	0.02	0.01	0.61	0.06	0.10	0.33	0.00	34.20	0.35	0.77	18.58	0.53	1.44	0.18	0.011	0.010	0.25	0.85	12.70	0.034	0.025	0.24	0.03	47.72	0.005	3.58	0.00	0.19	9.74	1.90	77.96	1.99	0.19	233.34	0.04	0.487	0.012	2.77	0.41	7.21	0.10	
2035 Jan	Mean	107.77	128.81	0.03	0.01	0.79	0.06	0.13	0.39	0.00	32.92	0.48	0.74	25.64	0.58	1.76	0.17	0.013	0.009	0.24	0.82	12.22	0.047	0.033	0.23	0.02	65.83	0.005	4.01	0.00	0.25	9.37	2.62	88.83	1.92	0.19	270.64	0.04	0.469	0.015	3.32	0.46	9.08	0.09	
2035 Feb	Mean	101.45	121.26	0.03	0.01	0.93	0.07	0.14	0.40	0.00	30.99	0.57	0.70	31.01	0.60	1.98	0.16	0.014	0.009	0.22	0.77	11.51	0.057	0.038	0.22	0.02	79.63	0.004	3.97	0.00	0.30	8.82	3.16	89.71	1.80	0.18	282.93	0.03	0.441	0.017	3.65	0.49	10.45	0.09	
2035 Mar	Mean	96.85	115.75	0.03	0.01	0.93	0.06	0.14	0.38	0.00	29.58	0.58	0.67	31.44	0.59	1.98	0.15	0.014	0.008	0.21	0.74	10.99	0.057	0.037	0.21	0.02	80.75	0.004	3.70	0.00	0.30	8.42	3.21	84.33	1.72	0.17	271.62	0.03	0.421	0.017	3.60	0.48	10.49	0.08	
2035 Apr	Mean	223.73	267.87	0.04	0.03	1.17	0.12	0.20	0.43	0.01	68.43	0.72	1.56	35.53	1.04	3.05	0.35	0.027	0.020	0.49	1.72	25.48	0.068	0.042	0.48	0.05	92.67	0.010	3.96	0.00	0.37	19.69	3.55	90.00	4.00	0.39	319.47	0.07	0.969	0.026	4.71	0.82	17.69	0.19	
2035 May	Mean	2430.18	2912.01	0.18	0.24	5.11	1.14	1.07	1.37	0.10	743.75	2.82	17.03	98.16	8.80	20.50	3.85	0.240	0.218	5.38	18.82	277.20	0.233	0.114	5.25	0.57	274.08	0.105	10.56	0.00	1.48	215.08	9.02	230.37	43.58	4.20	1222.84	0.82	10.515	0.160	24.03	6.57	129.63	2.10	
2035 Jun	Mean	2456.85	2944.13	0.16	0.24	4.61	1.14	1.00	1.15	0.11	751.95	2.50	17.22	78.17	8.71	19.86	3.90	0.240	0.220	5.44	19.04	280.28	0.200	0.091	5.31	0.58	223.79	0.106	8.31	0.00	1.31	217.53	6.93	178.38	44.07	4.24	1071.39	0.83	10.629	0.154	22.29	6.47	127.44	2.13	
2035 Jul	Mean	194.52	232.84	0.02	0.02	0.66	0.10	0.12	0.22	0.01	59.49	0.37	1.36	17.39	0.79	1.97	0.31	0.019	0.017	0.43	1.49	22.14	0.034	0.021	0.42	0.05	45.76	0.008	1.98	0.00	0.20	17.09	1.74	44.51	3.48	0.34	175.58	0.07	0.843	0.016	2.85	0.60	11.08	0.17	
2035 Aug	Mean	120.18	143.69	0.02	0.01	0.63	0.07	0.11	0.23	0.01	36.72	0.37	0.83	19.15	0.56	1.53	0.19	0.012	0.010	0.26	0.92	13.64	0.035	0.023	0.26	0.03	49.41	0.005	2.19	0.00	0.20	10.48	1.96	49.67	2.14	0.21	175.21	0.04	0.522	0.013	2.57	0.43	7.87	0.10	
2035 Sep	Mean	99.97	119.50	0.02	0.01	0.62	0.06	0.10	0.23	0.00	30.54	0.37	0.69	19.64	0.50	1.44	0.16	0.011	0.009	0.22	0.76	11.34	0.036	0.023	0.22	0.02	50.53	0.004	2.25	0.00	0.20	8.70	2.01	51.22	1.78	0.17	175.19	0.03	0.435	0.012	2.49	0.39	7.33	0.09	
2035 Oct	Mean	116.72	139.54	0.03	0.01	0.72	0.07	0.12	0.27	0.01	35.66	0.43	0.81	22.51	0.58	1.67	0.18	0.013	0.010	0.26	0.89	13.25	0.041	0.027	0.25	0.03	57.98	0.005	2.59	0.00	0.23	10.17	2.30	58.97	2.08	0.20	201.65	0.04	0.507	0.014	2.87	0.45	8.64	0.10	
2035 Nov	Mean	101.73	121.60	0.03	0.01	0.75	0.06	0.12	0.29	0.00	31.08	0.45	0.70	24.17	0.54	1.66	0.16	0.012	0.009	0.22	0.77	11.54	0.044	0.029	0.22	0.02	62.12	0.004	2.82	0.00	0.24	8.85	2.47	64.21	1.81	0.18	213.05	0.03	0.442	0.014	2.93	0.43	8.59	0.09	
2035 Dec	Mean	102.68	122.73	0.03	0.01	0.91	0.07	0.14	0.37	0.00	31.37	0.56	0.71	30.45	0.60	1.96	0.16	0.014	0.009	0.23	0.78	11.65	0.056	0.036	0.22	0.02	78.21	0.004	3.59	0.00	0.29	8.93	3.11	81.65	1.83	0.18	264.13	0.03	0.446	0.017	3.54	0.48	10.33	0.09	
2036 Jan	Mean	101.04	120.77	0.04	0.01	1.01	0.07	0.16	0.41	0.00	30.87	0.63	0.70	34.10	0.63	2.13	0.16	0.015	0.009	0.22	0.77	11.46	0.062	0.040	0.22	0.02	87.57	0.004	4.00	0.00	0.32	8.79	3.48	91.08	1.80	0.18	292.03	0.03	0.439	0.019	3.87	0.51	11.30	0.09	
2036 Feb	Mean	98.70	117.96	0.04	0.01	1.01	0.07	0.16	0.41	0.00	30.15	0.64	0.68	34.40	0.62	2.13	0.15	0.015	0.009	0.22	0.75	11.20	0.063	0.041	0.21	0.02	88.35	0.004	3.97	0.00	0.33	8.58	3.51	90.53	1.75	0.17	291.33	0.03	0.429	0.019	3.87	0.51	11.34	0.09	
2036 Mar	Mean	95.54	114.19	0.04	0.01	0.97	0.06	0.15	0.39	0.00	29.19	0.61	0.66	33.09	0.60	2.05	0.15	0.014	0.008	0.21	0.73	10.84	0.060	0.039	0.21	0.02	84.98	0.004	3.78	0.00	0.31	8.31	3.37	86.44	1.70	0.17	279.15	0.03	0.415	0.018	3.72	0.49	10.92	0.08	
2036 Apr	Mean	230.48	275.48	0.05	0.03	1.30	0.13	0.22	0.49	0.01	70.41	0.79	1.59	40.05	1.10	3.20	0.36	0.027	0.020	0.51	1.75	26.14	0.075	0.047	0.50	0.05	103.83	0.010	4.58	0.00	0.41	20.04	4.04	104.07	4.10	0.40	360.42	0.08	1.002	0.027	5.20	0.86	17.74	0.20	
2036 May	Mean	2344.42	2802.09	0.18	0.23	5.03	1.09	1.04	1.40	0.10	716.17	2.83	16.20	99.24	8.45	19.65	3.67	0.231	0.204	5.14	17.81	265.94	0.235	0.115	5.06	0.54	276.53	0.102	10.86	0.00	1.45	203.86	9.10	237.52	41.68	4.08	1207.67	0.78	10.193	0.158	23.39	6.33	126.47	2.04	
2036 Jun	Mean	1656.77	1980.20	0.12	0.15	3.18	0.76	0.69	0.81	0.07	506.11	1.65	11.45	55.21	5.85	12.86	2.59	0.151	0.144	3.63	12.58	187.94	0.134	0.066	3.58	0.38	155.47	0.072	6.24	0.00	0.89	144.07	5.06	134.43	29.45	2.88	752.36	0.55	7.203	0.100	15.28	4.34	80.05	1.44	

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2037 Dec	Mean	104.57	124.98	0.03	0.01	0.85	0.06	0.14	0.31	0.00	31.94	0.52	0.72	28.09	0.59	1.86	0.16	0.013	0.009	0.23	0.79	11.86	0.051	0.033	0.23	0.02	72.25	0.005	2.96	0.00	0.27	9.09	2.87	68.22	1.86	0.18	232.54	0.03	0.455	0.016	3.26	0.47	9.72	0.09
2038 Jan	Mean	103.08	123.20	0.03	0.01	0.95	0.07	0.15	0.35	0.00	31.49	0.59	0.71	31.69	0.61	2.03	0.16	0.014	0.009	0.23	0.78	11.69	0.058	0.037	0.22	0.02	81.47	0.004	3.31	0.00	0.30	8.96	3.23	76.49	1.83	0.18	258.09	0.03	0.448	0.018	3.58	0.50	10.68	0.09
2038 Feb	Mean	100.54	120.17	0.03	0.01	0.96	0.07	0.15	0.36	0.00	30.71	0.60	0.69	32.33	0.61	2.04	0.16	0.014	0.009	0.22	0.76	11.40	0.059	0.038	0.22	0.02	83.11	0.004	3.35	0.00	0.31	8.74	3.30	77.50	1.79	0.17	261.28	0.03	0.437	0.018	3.62	0.50	10.81	0.09
2038 Mar	Mean	97.33	116.33	0.03	0.01	0.93	0.06	0.14	0.34	0.00	29.73	0.58	0.67	31.22	0.59	1.98	0.15	0.014	0.008	0.21	0.74	11.04	0.057	0.036	0.21	0.02	80.27	0.004	3.21	0.00	0.30	8.46	3.19	74.24	1.73	0.17	251.24	0.03	0.423	0.017	3.49	0.48	10.44	0.08
2038 Apr	Mean	114.67	137.06	0.03	0.01	0.78	0.07	0.13	0.28	0.01	35.03	0.48	0.79	25.05	0.59	1.80	0.18	0.014	0.010	0.25	0.87	13.01	0.046	0.029	0.25	0.03	64.64	0.005	2.56	0.00	0.25	9.97	2.55	59.12	2.04	0.20	208.52	0.04	0.499	0.015	3.03	0.47	9.55	0.10
2038 May	Mean	2830.53	3383.11	0.22	0.26	6.03	1.31	1.26	1.54	0.12	864.67	3.18	19.56	116.76	10.19	22.78	4.43	0.259	0.246	6.21	21.50	321.08	0.266	0.138	6.11	0.65	321.99	0.123	11.92	0.00	1.72	246.13	11.05	262.47	50.32	4.92	1415.55	0.94	12.307	0.178	28.04	7.60	138.62	2.46
2038 Jun	Mean	1808.47	2161.51	0.12	0.17	3.33	0.82	0.73	0.78	0.08	552.45	1.72	12.49	54.99	6.34	13.81	2.83	0.165	0.157	3.97	13.74	205.14	0.137	0.065	3.91	0.41	156.45	0.079	5.55	0.00	0.93	157.26	4.99	119.70	32.15	3.15	754.83	0.60	7.863	0.107	16.05	4.70	86.37	1.57
2038 Jul	Mean	150.62	180.02	0.02	0.01	0.56	0.08	0.10	0.17	0.01	46.01	0.31	1.04	15.16	0.62	1.56	0.24	0.014	0.013	0.33	1.14	17.09	0.029	0.018	0.33	0.03	39.64	0.007	1.53	0.00	0.17	13.10	1.53	35.01	2.68	0.26	141.88	0.05	0.655	0.012	2.33	0.47	8.47	0.13
2038 Aug	Mean	111.00	132.66	0.02	0.01	0.57	0.06	0.10	0.19	0.00	33.91	0.32	0.77	17.04	0.51	1.37	0.17	0.011	0.010	0.24	0.84	12.59	0.031	0.020	0.24	0.03	43.98	0.005	1.74	0.00	0.18	9.65	1.75	40.11	1.97	0.19	149.15	0.04	0.483	0.011	2.27	0.40	6.97	0.10
2038 Sep	Mean	103.56	123.78	0.02	0.01	0.59	0.06	0.10	0.20	0.00	31.64	0.34	0.72	18.19	0.50	1.39	0.16	0.011	0.009	0.23	0.79	11.75	0.033	0.021	0.22	0.02	46.89	0.005	1.85	0.00	0.19	9.01	1.87	42.78	1.84	0.18	155.93	0.03	0.450	0.011	2.33	0.39	7.03	0.09
2038 Oct	Mean	103.78	124.04	0.02	0.01	0.63	0.06	0.10	0.21	0.00	31.70	0.37	0.72	19.57	0.51	1.45	0.16	0.011	0.009	0.23	0.79	11.77	0.036	0.023	0.22	0.02	50.42	0.005	2.00	0.00	0.20	9.02	2.01	46.08	1.84	0.18	166.17	0.03	0.451	0.012	2.46	0.40	7.40	0.09
2038 Nov	Mean	103.17	123.31	0.03	0.01	0.70	0.06	0.11	0.24	0.00	31.51	0.42	0.71	22.29	0.53	1.58	0.16	0.012	0.009	0.23	0.78	11.70	0.041	0.026	0.22	0.02	57.38	0.004	2.27	0.00	0.22	8.97	2.28	52.50	1.83	0.18	185.95	0.03	0.449	0.013	2.71	0.42	8.10	0.09
2038 Dec	Mean	104.94	125.42	0.03	0.01	0.84	0.06	0.13	0.30	0.00	32.06	0.52	0.72	27.69	0.58	1.84	0.16	0.013	0.009	0.23	0.80	11.90	0.051	0.032	0.23	0.02	71.23	0.005	2.81	0.00	0.27	9.12	2.83	65.12	1.87	0.18	225.61	0.04	0.456	0.016	3.21	0.47	9.62	0.09
2039 Jan	Mean	103.49	123.69	0.03	0.01	0.93	0.07	0.15	0.34	0.00	31.61	0.58	0.71	31.23	0.61	2.01	0.16	0.014	0.009	0.23	0.79	11.74	0.057	0.036	0.22	0.02	80.33	0.004	3.16	0.00	0.30	9.00	3.19	73.31	1.84	0.18	250.91	0.03	0.450	0.017	3.52	0.49	10.57	0.09
2039 Feb	Mean	100.87	120.56	0.03	0.01	0.95	0.07	0.15	0.34	0.00	30.81	0.59	0.70	31.89	0.61	2.03	0.16	0.014	0.009	0.22	0.77	11.44	0.058	0.037	0.22	0.02	82.01	0.004	3.22	0.00	0.30	8.77	3.26	74.68	1.79	0.18	254.79	0.03	0.439	0.018	3.56	0.49	10.70	0.09
2039 Mar	Mean	97.58	116.63	0.03	0.01	0.92	0.06	0.14	0.33	0.00	29.81	0.57	0.67	30.83	0.59	1.96	0.15	0.014	0.008	0.21	0.74	11.07	0.056	0.036	0.21	0.02	79.27	0.004	3.10	0.00	0.29	8.49	3.15	71.94	1.73	0.17	245.83	0.03	0.424	0.017	3.44	0.48	10.34	0.08
2039 Apr	Mean	179.92	215.05	0.04	0.02	1.02	0.10	0.17	0.35	0.01	54.96	0.62	1.24	31.40	0.86	2.53	0.28	0.022	0.016	0.39	1.37	20.41	0.060	0.036	0.39	0.04	81.67	0.008	3.12	0.00	0.32	15.65	3.16	71.97	3.20	0.31	263.88	0.06	0.782	0.022	3.98	0.68	14.40	0.16
2039 May	Mean	2531.13	3025.24	0.19	0.24	5.28	1.17	1.10	1.34	0.11	773.20	2.88	17.49	100.79	9.07	20.66	3.96	0.242	0.220	5.55	19.23	287.12	0.239	0.116	5.47	0.58	281.20	0.110	9.90	0.00	1.51	220.10	9.30	217.94	45.00	4.40	1216.90	0.84	11.005	0.164	24.54	6.77	130.72	2.20
2039 Jun	Mean	2023.03	2417.97	0.13	0.19	3.70	0.92	0.81	0.86	0.09	617.99	1.93	13.98	60.67	7.08	15.50	3.17	0.186	0.176	4.44	15.37	229.48	0.153	0.071	4.37	0.46	173.36	0.088	6.04	0.00	1.03	175.92	5.45	130.02	35.97	3.52	833.28	0.67	8.796	0.121	17.84	5.25	97.92	1.76
2039 Jul	Mean	186.00	222.31	0.02	0.02	0.65	0.09	0.12	0.20	0.01	56.82	0.36	1.29	17.31	0.76	1.86	0.29	0.017	0.016	0.41	1.41	21.10	0.034	0.020	0.40	0.04	45.35	0.008	1.75	0.00	0.20	16.17	1.75	39.90	3.31	0.32	164.81	0.06	0.809	0.015	2.75	0.57	10.14	0.16
2039 Aug	Mean	108.38	129.54	0.02	0.01	0.55	0.06	0.09	0.18	0.00	33.11	0.31	0.75	16.48	0.50	1.33	0.17	0.011	0.009	0.24	0.82	12.29	0.030	0.019	0.23	0.02	42.54	0.005	1.67	0.00	0.17	9.42	1.69	38.51	1.93	0.19	143.99	0.04	0.471	0.011	2.20	0.39	6.73	0.09
2039 Sep	Mean	101.46	121.27	0.02	0.01	0.57	0.06	0.10	0.19	0.00	30.99	0.33	0.70	17.47	0.48	1.34	0.16	0.010	0.009	0.22	0.77	11.51	0.032	0.021	0.22	0.02	45.03	0.004	1.77	0.00	0.18	8.82	1.79	40.83	1.80	0.18	149.74	0.03	0.441	0.011	2.25	0.38	6.77	0.09
2039 Oct	Mean	100.68	120.33	0.02	0.01	0.60	0.06	0.10	0.20	0.00	30.75	0.35	0.70	18.65	0.49	1.39	0.16	0.011	0.009	0.22	0.76	11.42	0.034	0.022	0.22	0.02	48.04	0.004	1.89	0.00	0.19	8.75	1.91	43.70	1.79	0.18	158.37	0.03	0.438	0.011	2.36	0.38	7.06	0.09
2039 Nov	Mean	103.31	123.48	0.03	0.01	0.69	0.06	0.11	0.24	0.00	31.56	0.41	0.71	22.01	0.53	1.56	0.16	0.012	0.009	0.23	0.78	11.72	0.040	0.026	0.22	0.02	56.66	0.004	2.23	0.00	0.22	8.98	2.26	51.66	1.84	0.18	183.60	0.03	0.449	0.013	2.68	0.42	8.02	0.09
2039 Dec	Mean	104.98	125.47	0.03	0.01	0.84	0.06	0.13	0.30	0.00	32.07	0.51	0.73	27.62	0.58	1.84	0.16	0.013	0.009	0.23	0.80	11.91	0.051	0.032	0.23	0.02	71.06	0.005	2.80	0.00	0.27	9.13	2.82	64.83	1.87	0.18	224.90	0.04	0.456	0.016	3.20	0.47	9.60	0.09
2040 Jan	Mean	103.57	123.78	0.03	0.01	0.93	0.07	0.15	0.34	0.00	31.64	0.58	0.72	31.24	0.61	2.01	0.16	0.014	0.009	0.23	0.79	11.75	0.057	0.036	0.22	0.02	80.34	0.005	3.16	0.00	0.30	9.01	3.19	73.32	1.84	0.18	250.96	0.03	0.450	0.017	3.52	0.49	10.57	0.09
2040 Feb	Mean	100.83	120.52	0																																								

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2041 Jul	Mean	175.00	209.16	0.02	0.02	0.56	0.09	0.10	0.16	0.01	53.46	0.29	1.21	14.08	0.69	1.62	0.27	0.015	0.015	0.38	1.33	19.85	0.027	0.017	0.38	0.04	36.87	0.008	1.37	0.00	0.17	15.22	1.44	31.28	3.11	0.30	137.37	0.06	0.761	0.012	2.39	0.52	8.45	0.15
2041 Aug	Mean	174.21	208.21	0.03	0.02	0.73	0.09	0.13	0.22	0.01	53.22	0.42	1.20	20.79	0.75	1.95	0.27	0.017	0.015	0.38	1.32	19.76	0.040	0.024	0.38	0.04	54.19	0.008	1.96	0.00	0.23	15.15	2.11	45.31	3.10	0.30	182.64	0.06	0.757	0.016	2.97	0.58	10.56	0.15
2041 Sep	Mean	162.15	193.81	0.03	0.02	0.77	0.09	0.13	0.24	0.01	49.53	0.46	1.12	22.82	0.73	2.00	0.25	0.017	0.014	0.36	1.23	18.39	0.043	0.026	0.35	0.04	59.43	0.007	2.11	0.00	0.24	14.10	2.31	48.99	2.88	0.28	192.60	0.05	0.705	0.017	3.07	0.56	11.02	0.14
2041 Oct	Mean	101.57	121.40	0.02	0.01	0.58	0.06	0.10	0.18	0.00	31.03	0.34	0.70	17.85	0.49	1.36	0.16	0.010	0.009	0.22	0.77	11.52	0.033	0.021	0.22	0.02	46.04	0.004	1.67	0.00	0.18	8.83	1.83	38.97	1.81	0.18	147.38	0.03	0.442	0.011	2.26	0.38	6.87	0.09
2041 Nov	Mean	104.24	124.59	0.02	0.01	0.67	0.06	0.11	0.21	0.00	31.84	0.39	0.72	20.97	0.52	1.52	0.16	0.011	0.009	0.23	0.79	11.82	0.038	0.024	0.23	0.02	54.04	0.005	1.95	0.00	0.21	9.06	2.15	45.67	1.85	0.18	169.57	0.03	0.453	0.013	2.56	0.41	7.76	0.09
2041 Dec	Mean	106.01	126.71	0.03	0.01	0.81	0.06	0.13	0.27	0.00	32.38	0.49	0.73	26.31	0.58	1.78	0.17	0.013	0.009	0.23	0.81	12.03	0.048	0.030	0.23	0.02	67.74	0.005	2.44	0.00	0.26	9.22	2.69	57.10	1.88	0.18	206.81	0.04	0.461	0.015	3.05	0.46	9.26	0.09
2042 Jan	Mean	104.65	125.07	0.03	0.01	0.90	0.07	0.14	0.30	0.00	31.97	0.55	0.72	29.78	0.60	1.94	0.16	0.014	0.009	0.23	0.79	11.87	0.054	0.034	0.23	0.02	76.65	0.005	2.75	0.00	0.29	9.10	3.05	64.45	1.86	0.18	230.34	0.03	0.455	0.017	3.35	0.48	10.19	0.09
2042 Feb	Mean	102.02	121.93	0.03	0.01	0.91	0.06	0.14	0.31	0.00	31.16	0.57	0.70	30.47	0.60	1.96	0.16	0.014	0.009	0.22	0.77	11.57	0.056	0.035	0.22	0.02	78.41	0.004	2.80	0.00	0.29	8.87	3.11	65.76	1.81	0.18	234.17	0.03	0.444	0.017	3.39	0.48	10.33	0.09
2042 Mar	Mean	98.72	117.99	0.03	0.01	0.88	0.06	0.14	0.30	0.00	30.16	0.55	0.68	29.44	0.58	1.90	0.15	0.014	0.009	0.22	0.75	11.20	0.054	0.034	0.21	0.02	75.77	0.004	2.69	0.00	0.28	8.58	3.01	63.24	1.76	0.17	225.74	0.03	0.429	0.016	3.28	0.47	9.98	0.09
2042 Apr	Mean	127.65	152.57	0.03	0.01	0.78	0.07	0.13	0.25	0.01	38.99	0.47	0.88	24.57	0.63	1.84	0.20	0.014	0.011	0.28	0.97	14.48	0.045	0.028	0.28	0.03	63.48	0.006	2.25	0.00	0.25	11.10	2.51	52.60	2.27	0.22	197.74	0.04	0.555	0.015	3.02	0.50	9.69	0.11
2042 May	Mean	2445.78	2923.24	0.18	0.23	5.04	1.13	1.06	1.21	0.11	747.13	2.73	16.90	94.87	8.75	19.81	3.83	0.232	0.213	5.36	18.58	277.44	0.226	0.108	5.28	0.56	265.20	0.106	8.61	0.00	1.44	212.68	8.76	190.47	43.48	4.25	1131.35	0.82	10.634	0.157	23.36	6.52	125.02	2.13
2042 Jun	Mean	2585.48	3090.21	0.17	0.24	4.69	1.17	1.03	1.04	0.11	789.81	2.45	17.86	76.20	9.03	19.79	4.05	0.238	0.225	5.67	19.64	293.28	0.195	0.088	5.58	0.59	218.49	0.112	6.96	0.00	1.31	224.82	6.82	150.52	45.97	4.50	1031.03	0.86	11.241	0.155	22.55	6.70	125.52	2.25
2042 Jul	Mean	191.93	229.39	0.02	0.02	0.64	0.09	0.12	0.18	0.01	58.63	0.35	1.33	16.71	0.77	1.87	0.30	0.018	0.017	0.42	1.46	21.77	0.033	0.020	0.41	0.04	43.92	0.008	1.53	0.00	0.19	16.69	1.69	35.20	3.41	0.33	155.48	0.06	0.834	0.015	2.70	0.58	10.21	0.17
2042 Aug	Mean	112.25	134.16	0.02	0.01	0.54	0.06	0.09	0.16	0.00	34.29	0.30	0.78	15.73	0.50	1.32	0.18	0.011	0.010	0.25	0.85	12.73	0.029	0.018	0.24	0.03	40.68	0.005	1.42	0.00	0.17	9.76	1.62	33.22	2.00	0.20	132.69	0.04	0.488	0.011	2.13	0.39	6.67	0.10
2042 Sep	Mean	101.99	121.91	0.02	0.01	0.55	0.06	0.09	0.17	0.00	31.16	0.32	0.70	16.82	0.48	1.31	0.16	0.010	0.009	0.22	0.77	11.57	0.031	0.020	0.22	0.02	43.39	0.004	1.51	0.00	0.17	8.87	1.73	35.37	1.81	0.18	137.71	0.03	0.443	0.011	2.16	0.37	6.60	0.09
2042 Oct	Mean	140.75	168.23	0.03	0.01	0.70	0.08	0.12	0.21	0.01	43.00	0.40	0.97	20.86	0.64	1.73	0.22	0.014	0.012	0.31	1.07	15.97	0.039	0.024	0.30	0.03	54.04	0.006	1.87	0.00	0.22	12.24	2.13	43.78	2.50	0.24	173.34	0.05	0.612	0.014	2.76	0.50	9.02	0.12
2042 Nov	Mean	104.65	125.08	0.02	0.01	0.65	0.06	0.11	0.20	0.00	31.97	0.39	0.72	20.55	0.52	1.50	0.16	0.011	0.009	0.23	0.79	11.87	0.038	0.024	0.23	0.02	52.97	0.005	1.84	0.00	0.21	9.10	2.11	43.28	1.86	0.18	163.95	0.03	0.455	0.012	2.51	0.41	7.65	0.09
2042 Dec	Mean	106.31	127.07	0.03	0.01	0.80	0.06	0.13	0.26	0.00	32.48	0.48	0.73	25.80	0.57	1.76	0.17	0.013	0.009	0.23	0.81	12.06	0.047	0.030	0.23	0.02	66.47	0.005	2.31	0.00	0.25	9.24	2.64	54.31	1.89	0.18	200.19	0.04	0.462	0.015	2.99	0.46	9.12	0.09
2043 Jan	Mean	104.99	125.48	0.03	0.01	0.89	0.07	0.14	0.29	0.00	32.07	0.55	0.73	29.31	0.60	1.92	0.16	0.014	0.009	0.23	0.80	11.91	0.054	0.034	0.23	0.02	75.46	0.005	2.61	0.00	0.28	9.13	3.00	61.66	1.87	0.18	223.81	0.04	0.456	0.017	3.29	0.48	10.07	0.09
2043 Feb	Mean	102.38	122.36	0.03	0.01	0.90	0.06	0.14	0.30	0.00	31.27	0.56	0.71	30.07	0.60	1.95	0.16	0.014	0.009	0.22	0.78	11.61	0.055	0.034	0.22	0.02	77.42	0.004	2.68	0.00	0.29	8.90	3.08	63.24	1.82	0.18	228.39	0.03	0.445	0.017	3.34	0.48	10.23	0.09
2043 Mar	Mean	98.93	118.25	0.03	0.01	0.87	0.06	0.14	0.29	0.00	30.22	0.54	0.68	29.10	0.58	1.88	0.15	0.013	0.009	0.22	0.75	11.22	0.053	0.033	0.21	0.02	74.93	0.004	2.59	0.00	0.28	8.60	2.98	61.07	1.76	0.17	220.75	0.03	0.430	0.016	3.23	0.47	9.90	0.09
2043 Apr	Mean	163.93	195.93	0.03	0.02	0.85	0.09	0.14	0.26	0.01	50.08	0.50	1.13	25.47	0.76	2.12	0.26	0.018	0.014	0.36	1.25	18.60	0.048	0.029	0.35	0.04	66.20	0.007	2.26	0.00	0.26	14.25	2.58	53.05	2.91	0.29	208.40	0.05	0.713	0.018	3.30	0.59	11.62	0.14
2043 May	Mean	2451.03	2929.52	0.18	0.23	5.02	1.13	1.06	1.18	0.11	748.74	2.64	16.93	93.53	8.76	19.48	3.84	0.225	0.213	5.38	18.62	278.03	0.219	0.108	5.29	0.56	260.19	0.107	8.50	0.00	1.43	213.13	8.76	188.19	43.58	4.26	1128.82	0.82	10.657	0.152	23.37	6.52	119.81	2.13
2043 Jun	Mean	1902.45	2273.84	0.12	0.18	3.38	0.86	0.75	0.74	0.08	581.16	1.80	13.14	53.67	6.62	14.64	2.98	0.179	0.165	4.17	14.45	215.80	0.142	0.061	4.11	0.44	155.63	0.083	4.75	0.00	0.94	165.43	4.69	102.45	33.82	3.31	733.34	0.63	8.272	0.115	16.30	4.92	94.80	1.65
2043 Jul	Mean	160.85	192.25	0.02	0.02	0.56	0.08	0.10	0.15	0.01	49.14	0.31	1.11	14.65	0.65	1.59	0.25	0.015	0.014	0.35	1.22	18.25	0.028	0.017	0.35	0.04	38.42	0.007	1.31	0.00	0.17	13.99	1.48	30.38	2.86	0.28	133.90	0.05	0.699	0.013	2.32	0.49	8.62	0.14
2043 Aug	Mean	103.47	123.67	0.02	0.01	0.52	0.06	0.09	0.15	0.00	31.61	0.29	0.71	15.36	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.74	0.028	0.018	0.22	0.02	39.68	0.004	1.36	0.00	0.16	9.00	1.58	31.90	1.84	0.18	127.31	0.03	0.450	0.010	2.04	0.36	6.26	0.09
2043 Sep	Mean	102.19	122.14																																									

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr	
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium	
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2045 Feb	Mean	102.72	122.77	0.03	0.01	0.89	0.06	0.14	0.29	0.00	31.38	0.55	0.71	29.66	0.60	1.93	0.16	0.014	0.009	0.23	0.78	11.65	0.054	0.034	0.22	0.02	76.39	0.004	2.55	0.00	0.29	8.93	3.03	60.54	1.83	0.18	222.22	0.03	0.447	0.017	3.29	0.48	10.12	0.09	
2045 Mar	Mean	99.28	118.67	0.03	0.01	0.86	0.06	0.14	0.28	0.00	30.33	0.53	0.69	28.66	0.58	1.86	0.16	0.013	0.009	0.22	0.75	11.26	0.052	0.033	0.21	0.02	73.80	0.004	2.46	0.00	0.28	8.63	2.93	58.36	1.77	0.17	214.44	0.03	0.432	0.016	3.18	0.46	9.78	0.09	
2045 Apr	Mean	204.24	244.11	0.03	0.02	0.90	0.11	0.16	0.26	0.01	62.39	0.54	1.41	25.99	0.89	2.43	0.32	0.022	0.018	0.45	1.55	23.17	0.050	0.030	0.44	0.05	68.05	0.009	2.23	0.00	0.28	17.76	2.61	52.23	3.63	0.36	216.19	0.07	0.888	0.020	3.57	0.69	13.85	0.18	
2045 May	Mean	3146.05	3760.22	0.23	0.30	6.37	1.45	1.35	1.48	0.14	961.05	3.47	21.74	117.82	11.21	25.40	4.92	0.300	0.274	6.90	23.90	356.87	0.284	0.133	6.80	0.72	331.04	0.137	10.14	0.00	1.81	273.57	10.79	224.89	55.93	5.47	1403.55	1.05	13.679	0.201	29.54	8.36	161.62	2.74	
2045 Jun	Mean	2583.35	3087.67	0.17	0.24	4.64	1.17	1.03	0.99	0.11	789.16	2.37	17.85	74.12	9.01	19.49	4.04	0.233	0.225	5.67	19.62	293.04	0.188	0.086	5.58	0.59	212.18	0.112	6.60	0.00	1.29	224.64	6.69	142.74	45.93	4.49	1012.76	0.86	11.232	0.151	22.37	6.68	121.78	2.25	
2045 Jul	Mean	173.51	207.38	0.02	0.02	0.55	0.08	0.10	0.14	0.01	53.00	0.30	1.20	13.85	0.68	1.64	0.27	0.016	0.015	0.38	1.32	19.68	0.027	0.016	0.37	0.04	36.52	0.008	1.19	0.00	0.16	15.09	1.39	27.57	3.08	0.30	128.79	0.06	0.754	0.013	2.31	0.52	9.04	0.15	
2045 Aug	Mean	104.05	124.36	0.02	0.01	0.50	0.06	0.09	0.14	0.00	31.78	0.28	0.72	14.70	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.80	0.027	0.017	0.22	0.02	37.97	0.005	1.25	0.00	0.15	9.05	1.51	29.44	1.85	0.18	120.89	0.03	0.452	0.010	1.97	0.36	6.09	0.09	
2045 Sep	Mean	121.94	145.75	0.02	0.01	0.64	0.07	0.11	0.19	0.01	37.25	0.37	0.84	19.28	0.57	1.53	0.19	0.012	0.011	0.27	0.93	13.83	0.036	0.022	0.26	0.03	49.80	0.005	1.63	0.00	0.20	10.60	1.98	38.48	2.17	0.21	155.03	0.04	0.530	0.012	2.49	0.44	7.75	0.11	
2045 Oct	Mean	102.83	122.90	0.02	0.01	0.57	0.06	0.10	0.17	0.00	31.41	0.33	0.71	17.41	0.49	1.34	0.16	0.010	0.009	0.23	0.78	11.66	0.032	0.020	0.22	0.02	44.93	0.004	1.46	0.00	0.18	8.94	1.79	34.61	1.83	0.18	138.19	0.03	0.447	0.011	2.20	0.38	6.77	0.09	
2045 Nov	Mean	152.47	182.23	0.03	0.02	0.78	0.08	0.13	0.23	0.01	46.57	0.47	1.05	23.42	0.70	1.97	0.24	0.017	0.013	0.33	1.16	17.29	0.044	0.027	0.33	0.03	60.99	0.007	1.95	0.00	0.24	13.26	2.37	46.11	2.71	0.27	186.81	0.05	0.663	0.017	3.02	0.55	10.94	0.13	
2045 Dec	Mean	106.96	127.84	0.03	0.01	0.78	0.06	0.13	0.24	0.00	32.67	0.47	0.74	25.31	0.57	1.74	0.17	0.013	0.009	0.23	0.81	12.13	0.046	0.029	0.23	0.02	65.23	0.005	2.11	0.00	0.25	9.30	2.59	50.23	1.90	0.19	191.24	0.04	0.465	0.015	2.92	0.45	9.01	0.09	
2046 Jan	Mean	105.69	126.32	0.03	0.01	0.87	0.07	0.14	0.27	0.00	32.29	0.53	0.73	28.62	0.60	1.89	0.17	0.014	0.009	0.23	0.80	11.99	0.052	0.033	0.23	0.02	73.73	0.005	2.38	0.00	0.28	9.19	2.93	56.79	1.88	0.18	212.82	0.04	0.460	0.016	3.21	0.48	9.90	0.09	
2046 Feb	Mean	103.05	123.16	0.03	0.01	0.88	0.06	0.14	0.28	0.00	31.48	0.55	0.71	29.28	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.69	0.054	0.033	0.22	0.02	75.43	0.004	2.44	0.00	0.28	8.96	3.00	58.08	1.83	0.18	216.58	0.03	0.448	0.017	3.25	0.48	10.03	0.09	
2046 Mar	Mean	99.59	119.03	0.03	0.01	0.85	0.06	0.13	0.27	0.00	30.42	0.53	0.69	28.30	0.57	1.85	0.16	0.013	0.009	0.22	0.76	11.30	0.052	0.032	0.22	0.02	72.90	0.004	2.35	0.00	0.27	8.66	2.90	55.98	1.77	0.17	209.02	0.03	0.433	0.016	3.14	0.46	9.69	0.09	
2046 Apr	Mean	182.25	217.83	0.03	0.02	0.92	0.10	0.16	0.27	0.01	55.67	0.55	1.26	27.64	0.83	2.36	0.29	0.021	0.016	0.40	1.38	20.67	0.053	0.031	0.39	0.04	72.08	0.008	2.29	0.00	0.29	15.85	2.79	54.13	3.24	0.32	220.19	0.06	0.792	0.020	3.57	0.65	13.27	0.16	
2046 May	Mean	3166.45	3784.59	0.23	0.30	6.25	1.45	1.33	1.41	0.14	967.28	3.35	21.88	112.38	11.23	25.16	4.96	0.297	0.275	6.95	24.05	359.19	0.273	0.128	6.84	0.72	316.67	0.138	9.52	0.00	1.77	275.34	10.28	210.59	56.29	5.51	1366.90	1.06	13.767	0.198	29.19	8.36	159.02	2.75	
2046 Jun	Mean	1870.50	2235.65	0.12	0.17	3.33	0.85	0.74	0.70	0.08	571.40	1.71	12.92	52.64	6.52	14.12	2.93	0.170	0.163	4.10	14.21	212.18	0.135	0.060	4.04	0.43	151.32	0.081	4.54	0.00	0.92	162.65	4.72	98.28	33.25	3.25	720.00	0.62	8.133	0.110	16.07	4.83	88.81	1.63	
2046 Jul	Mean	193.50	231.27	0.02	0.02	0.61	0.09	0.11	0.15	0.01	59.11	0.32	1.34	15.20	0.76	1.80	0.30	0.017	0.017	0.42	1.47	21.95	0.030	0.018	0.42	0.04	40.04	0.008	1.27	0.00	0.18	16.83	1.54	29.57	3.44	0.34	140.99	0.06	0.841	0.014	2.56	0.58	9.74	0.17	
2046 Aug	Mean	104.04	124.35	0.02	0.01	0.50	0.06	0.09	0.14	0.00	31.78	0.28	0.72	14.63	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.80	0.027	0.017	0.22	0.02	37.81	0.005	1.20	0.00	0.15	9.05	1.51	28.38	1.85	0.18	118.69	0.03	0.452	0.010	1.96	0.36	6.07	0.09	
2046 Sep	Mean	130.41	155.87	0.02	0.01	0.60	0.07	0.10	0.16	0.01	39.84	0.33	0.90	17.36	0.58	1.49	0.20	0.012	0.011	0.29	0.99	14.79	0.032	0.020	0.28	0.03	44.94	0.006	1.42	0.00	0.18	11.34	1.79	33.56	2.32	0.23	142.02	0.04	0.567	0.012	2.36	0.44	7.53	0.11	
2046 Oct	Mean	102.12	122.05	0.02	0.01	0.55	0.06	0.09	0.16	0.00	31.19	0.32	0.71	16.79	0.48	1.31	0.16	0.010	0.009	0.22	0.78	11.58	0.031	0.019	0.22	0.02	43.36	0.004	1.36	0.00	0.17	8.88	1.73	32.35	1.82	0.18	132.00	0.03	0.444	0.011	2.13	0.37	6.59	0.09	
2046 Nov	Mean	105.05	125.56	0.02	0.01	0.63	0.06	0.10	0.18	0.00	32.09	0.37	0.73	19.61	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.92	0.036	0.022	0.23	0.02	50.59	0.005	1.58	0.00	0.20	9.14	2.02	37.75	1.87	0.18	150.94	0.04	0.457	0.012	2.40	0.40	7.40	0.09	
2046 Dec	Mean	107.26	128.19	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.76	0.46	0.74	24.70	0.57	1.71	0.17	0.013	0.009	0.24	0.81	12.17	0.045	0.028	0.23	0.02	63.67	0.005	1.99	0.00	0.24	9.33	2.53	47.51	1.91	0.19	184.45	0.04	0.466	0.014	2.86	0.45	8.84	0.09	
2047 Jan	Mean	106.12	126.84	0.03	0.01	0.86	0.07	0.14	0.26	0.00	32.42	0.52	0.73	28.13	0.59	1.87	0.17	0.014	0.009	0.23	0.81	12.04	0.052	0.032	0.23	0.02	72.48	0.005	2.26	0.00	0.27	9.23	2.88	54.13	1.89	0.18	206.51	0.04	0.461	0.016	3.15	0.47	9.77	0.09	
2047 Feb	Mean	103.48	123.68	0.03	0.01	0.87	0.06	0.14	0.27	0.00	31.61	0.54	0.71	28.89	0.59	1.90	0.16	0.014	0.009	0.23	0.79	11.74	0.053	0.033	0.22	0.02	74.43	0.004	2.32	0.00	0.28	9.00	2.96	55.62	1.84	0.18	210.91	0.03	0.450	0.016	3.20	0.47	9.93	0.09	
2047 Mar	Mean	100.02	119.54	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.55	0.52	0.69	28.00	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.35	0.051	0.032	0.22	0.02	72.14	0.004	2.25	0.00	0.27	8.70	2.87	53.84	1.78	0.17	204.23	0.03	0.435	0.016	3.10	0.46	9.62	0.09	
2047 Apr	Mean	95.25	1																																										

Table A-4
Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
2048 Sep	Mean	155.31	185.63	0.03	0.02	0.69	0.08	0.12	0.19	0.01	47.44	0.40	1.07	19.88	0.68	1.81	0.24	0.016	0.014	0.34	1.18	17.62	0.038	0.023	0.34	0.04	51.89	0.007	1.54	0.00	0.21	13.51	2.01	36.61	2.76	0.27	159.44	0.05	0.675	0.015	2.71	0.52	9.96	0.14
2048 Oct	Mean	115.82	138.43	0.02	0.01	0.59	0.06	0.10	0.16	0.01	35.38	0.34	0.80	17.64	0.53	1.43	0.18	0.011	0.010	0.25	0.88	13.14	0.033	0.020	0.25	0.03	45.59	0.005	1.40	0.00	0.18	10.07	1.82	33.31	2.06	0.20	139.21	0.04	0.504	0.012	2.29	0.41	7.19	0.10
2048 Nov	Mean	105.32	125.88	0.02	0.01	0.63	0.06	0.10	0.18	0.00	32.17	0.37	0.73	19.65	0.52	1.46	0.16	0.011	0.009	0.23	0.80	11.95	0.036	0.022	0.23	0.02	50.71	0.005	1.55	0.00	0.20	9.16	2.02	37.08	1.87	0.18	149.87	0.04	0.458	0.012	2.40	0.40	7.42	0.09
2048 Dec	Mean	107.40	128.37	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.81	0.46	0.74	24.71	0.57	1.72	0.17	0.013	0.009	0.24	0.82	12.18	0.045	0.028	0.23	0.02	63.72	0.005	1.94	0.00	0.24	9.34	2.54	46.68	1.91	0.19	182.96	0.04	0.467	0.015	2.85	0.45	8.85	0.09
2049 Jan	Mean	106.23	126.96	0.03	0.01	0.85	0.07	0.14	0.26	0.00	32.45	0.52	0.73	28.03	0.59	1.87	0.17	0.014	0.009	0.23	0.81	12.05	0.051	0.032	0.23	0.02	72.25	0.005	2.21	0.00	0.27	9.24	2.87	53.07	1.89	0.18	204.26	0.04	0.462	0.016	3.13	0.47	9.74	0.09
2049 Feb	Mean	103.56	123.78	0.03	0.01	0.87	0.06	0.14	0.26	0.00	31.64	0.54	0.72	28.73	0.59	1.89	0.16	0.014	0.009	0.23	0.79	11.75	0.053	0.032	0.22	0.02	74.03	0.005	2.27	0.00	0.28	9.01	2.94	54.51	1.84	0.18	208.39	0.03	0.450	0.016	3.18	0.47	9.89	0.09
2049 Mar	Mean	100.11	119.65	0.03	0.01	0.84	0.06	0.13	0.25	0.00	30.58	0.52	0.69	27.88	0.57	1.83	0.16	0.013	0.009	0.22	0.76	11.36	0.051	0.031	0.22	0.02	71.85	0.004	2.20	0.00	0.27	8.71	2.86	52.93	1.78	0.17	202.22	0.03	0.435	0.016	3.08	0.46	9.59	0.09
2049 Apr	Mean	158.20	189.08	0.03	0.02	0.81	0.09	0.14	0.23	0.01	48.33	0.49	1.09	24.55	0.73	2.08	0.25	0.018	0.014	0.35	1.20	17.95	0.047	0.028	0.34	0.04	64.06	0.007	1.94	0.00	0.26	13.76	2.47	46.16	2.81	0.28	191.05	0.05	0.688	0.018	3.13	0.57	11.81	0.14
2049 May	Mean	2772.88	3314.19	0.20	0.26	5.57	1.27	1.18	1.23	0.12	847.05	2.91	19.16	101.69	9.87	21.85	4.34	0.253	0.241	6.08	21.06	314.54	0.240	0.117	5.99	0.63	283.99	0.121	8.49	0.00	1.58	241.12	9.49	188.91	49.30	4.82	1219.90	0.92	12.056	0.170	25.93	7.34	134.61	2.41
2049 Jun	Mean	2502.78	2991.36	0.16	0.23	4.43	1.13	0.98	0.93	0.11	764.54	2.30	17.29	69.46	8.71	18.99	3.92	0.230	0.218	5.49	19.01	283.90	0.181	0.079	5.41	0.57	200.77	0.109	5.80	0.00	1.23	217.63	6.15	125.33	44.50	4.35	946.84	0.83	10.882	0.148	21.33	6.45	120.92	2.18
2049 Jul	Mean	166.36	198.83	0.02	0.02	0.51	0.08	0.10	0.13	0.01	50.82	0.27	1.15	12.53	0.65	1.53	0.26	0.015	0.014	0.36	1.26	18.87	0.025	0.015	0.36	0.04	33.07	0.007	1.02	0.00	0.15	14.47	1.27	23.75	2.96	0.29	116.46	0.06	0.723	0.012	2.15	0.49	8.29	0.14
2049 Aug	Mean	104.28	124.63	0.02	0.01	0.49	0.06	0.09	0.13	0.00	31.85	0.28	0.72	14.45	0.47	1.21	0.16	0.010	0.009	0.23	0.79	11.83	0.027	0.017	0.23	0.02	37.36	0.005	1.15	0.00	0.15	9.07	1.49	27.37	1.85	0.18	116.36	0.03	0.453	0.010	1.94	0.36	6.03	0.09
2049 Sep	Mean	102.75	122.80	0.02	0.01	0.53	0.06	0.09	0.15	0.00	31.39	0.30	0.71	15.86	0.47	1.27	0.16	0.010	0.009	0.23	0.78	11.66	0.029	0.018	0.22	0.02	40.98	0.004	1.25	0.00	0.16	8.93	1.63	29.92	1.83	0.18	124.89	0.03	0.447	0.010	2.05	0.37	6.36	0.09
2049 Oct	Mean	102.02	121.94	0.02	0.01	0.56	0.06	0.09	0.15	0.00	31.17	0.32	0.70	16.87	0.48	1.31	0.16	0.010	0.009	0.22	0.77	11.57	0.031	0.019	0.22	0.02	43.56	0.004	1.33	0.00	0.17	8.87	1.74	31.84	1.81	0.18	131.24	0.03	0.444	0.011	2.13	0.37	6.61	0.09
2049 Nov	Mean	105.07	125.58	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.10	0.36	0.73	19.35	0.51	1.45	0.16	0.011	0.009	0.23	0.80	11.92	0.036	0.022	0.23	0.02	49.94	0.005	1.53	0.00	0.20	9.14	1.99	36.64	1.87	0.18	148.13	0.04	0.457	0.012	2.37	0.40	7.33	0.09
2049 Dec	Mean	107.46	128.44	0.03	0.01	0.76	0.06	0.12	0.22	0.00	32.83	0.46	0.74	24.41	0.56	1.70	0.17	0.013	0.009	0.24	0.82	12.19	0.045	0.028	0.23	0.02	62.95	0.005	1.93	0.00	0.24	9.34	2.50	46.27	1.91	0.19	181.33	0.04	0.467	0.014	2.83	0.45	8.77	0.09
2050 Jan	Mean	106.27	127.01	0.03	0.01	0.85	0.07	0.14	0.25	0.00	32.46	0.52	0.73	27.89	0.59	1.86	0.17	0.014	0.009	0.23	0.81	12.05	0.051	0.032	0.23	0.02	71.88	0.005	2.20	0.00	0.27	9.24	2.86	52.96	1.89	0.18	203.65	0.04	0.462	0.016	3.12	0.47	9.71	0.09
2050 Feb	Mean	103.57	123.79	0.03	0.01	0.87	0.06	0.14	0.26	0.00	31.64	0.53	0.72	28.70	0.59	1.89	0.16	0.014	0.009	0.23	0.79	11.75	0.053	0.032	0.22	0.02	73.97	0.005	2.27	0.00	0.28	9.01	2.94	54.61	1.84	0.18	208.49	0.03	0.450	0.016	3.18	0.47	9.88	0.09
2050 Mar	Mean	100.07	119.61	0.03	0.01	0.84	0.06	0.13	0.25	0.00	30.57	0.52	0.69	27.86	0.57	1.83	0.16	0.013	0.009	0.22	0.76	11.35	0.051	0.031	0.22	0.02	71.79	0.004	2.21	0.00	0.27	8.70	2.85	53.00	1.78	0.17	202.26	0.03	0.435	0.016	3.08	0.46	9.58	0.09
2050 Apr	Mean	181.21	216.58	0.03	0.02	0.90	0.10	0.15	0.26	0.01	55.35	0.54	1.25	27.00	0.83	2.33	0.28	0.021	0.016	0.40	1.38	20.56	0.052	0.030	0.39	0.04	70.49	0.008	2.14	0.00	0.28	15.76	2.72	50.93	3.22	0.32	211.97	0.06	0.788	0.020	3.49	0.64	13.20	0.16
2050 May	Mean	2475.67	2958.96	0.19	0.23	5.26	1.14	1.10	1.19	0.11	756.26	2.76	17.10	101.31	8.91	19.89	3.87	0.226	0.215	5.43	18.80	280.83	0.232	0.116	5.35	0.57	279.91	0.108	8.44	0.00	1.50	215.28	9.60	189.43	44.01	4.31	1160.39	0.83	10.764	0.155	24.11	6.64	120.97	2.15
2050 Jun	Mean	2481.73	2966.21	0.16	0.23	4.39	1.12	0.97	0.91	0.11	758.11	2.26	17.15	68.66	8.63	18.74	3.88	0.227	0.216	5.44	18.85	281.51	0.178	0.078	5.36	0.57	198.09	0.108	5.79	0.00	1.22	215.80	6.11	125.10	44.12	4.32	940.98	0.83	10.790	0.146	21.17	6.40	118.53	2.16
2050 Jul	Mean	213.02	254.61	0.02	0.02	0.62	0.10	0.12	0.15	0.01	65.07	0.34	1.47	15.10	0.82	1.94	0.33	0.019	0.019	0.47	1.62	24.16	0.030	0.017	0.46	0.05	40.09	0.009	1.22	0.00	0.19	18.52	1.51	28.40	3.79	0.37	142.10	0.07	0.926	0.015	2.65	0.62	10.91	0.19
2050 Aug	Mean	104.07	124.38	0.02	0.01	0.50	0.06	0.09	0.14	0.00	31.79	0.28	0.72	14.65	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.80	0.027	0.017	0.22	0.02	37.89	0.005	1.16	0.00	0.15	9.05	1.51	27.74	1.85	0.18	117.58	0.03	0.452	0.010	1.95	0.36	6.08	0.09
2050 Sep	Mean	159.41	190.52	0.03	0.02	0.71	0.08	0.12	0.19	0.01	48.70	0.41	1.10	20.52	0.70	1.86	0.25	0.016	0.014	0.35	1.21	18.08	0.039	0.023	0.34	0.04	53.51	0.007	1.60	0.00	0.22	13.86	2.08	38.07	2.83	0.28	165.02	0.05	0.693	0.015	2.79	0.54	10.13	0.14
2050 Oct	Mean	101.97	121.88	0.02	0.01	0.56	0.06	0.09	0.16	0.00	31.15	0.32	0.70	17.09	0.48	1.32	0.16	0.010	0.009	0.22	0.77	11.57	0.031	0.020	0.22	0.02	44.12	0.004	1.35	0.00	0.18	8.87	1.76	32.26	1.81	0.18	132.67	0.03	0.443	0.011	2.15	0.38	6.66	0.09
2050 Nov	Mean	105.19	125.72	0.02																																								

Table A-4

Monthly WQ Report for Scenario A.1.d - Interim/Ulimate WRD Sediment Pond, No Climate Change, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2052 Apr	Mean	161.45	192.97	0.03	0.02	0.84	0.09	0.14	0.24	0.01	49.32	0.49	1.12	25.16	0.75	2.06	0.25	0.017	0.014	0.35	1.23	18.31	0.047	0.029	0.35	0.04	65.23	0.007	2.04	0.00	0.26	14.04	2.57	48.40	2.87	0.28	198.81	0.05	0.702	0.017	3.24	0.58	10.84	0.14
2052 May	Mean	2478.29	2962.10	0.19	0.23	5.12	1.14	1.08	1.15	0.11	757.06	2.69	17.12	96.30	8.87	19.72	3.88	0.226	0.216	5.44	18.82	281.12	0.223	0.111	5.35	0.57	267.37	0.108	8.10	0.00	1.46	215.50	9.07	180.84	44.06	4.31	1129.46	0.83	10.775	0.154	23.68	6.60	120.70	2.16
2052 Jun	Mean	1868.62	2233.40	0.12	0.17	3.35	0.85	0.74	0.70	0.08	570.82	1.73	12.91	53.50	6.52	14.16	2.92	0.170	0.162	4.10	14.19	211.97	0.137	0.061	4.04	0.43	153.55	0.081	4.53	0.00	0.93	162.49	4.80	98.28	33.22	3.25	721.97	0.62	8.124	0.110	16.11	4.83	89.08	1.62
2052 Jul	Mean	155.78	186.19	0.02	0.01	0.49	0.08	0.09	0.12	0.01	47.59	0.27	1.08	12.40	0.61	1.46	0.24	0.014	0.014	0.34	1.18	17.67	0.024	0.014	0.34	0.04	32.66	0.007	1.01	0.00	0.15	13.55	1.25	23.61	2.77	0.27	113.52	0.05	0.677	0.011	2.07	0.46	7.96	0.14
2052 Aug	Mean	121.24	144.91	0.02	0.01	0.55	0.06	0.10	0.15	0.01	37.04	0.30	0.84	15.77	0.53	1.37	0.19	0.011	0.011	0.27	0.92	13.75	0.029	0.018	0.26	0.03	40.86	0.005	1.27	0.00	0.17	10.54	1.62	30.11	2.16	0.21	128.88	0.04	0.527	0.011	2.16	0.41	6.95	0.11
2052 Sep	Mean	117.43	140.35	0.02	0.01	0.58	0.06	0.10	0.16	0.01	35.87	0.33	0.81	17.13	0.53	1.41	0.18	0.011	0.010	0.26	0.89	13.32	0.032	0.020	0.25	0.03	44.29	0.005	1.37	0.00	0.18	10.21	1.76	32.66	2.09	0.20	136.89	0.04	0.511	0.011	2.26	0.41	7.07	0.10
2052 Oct	Mean	102.23	122.19	0.02	0.01	0.56	0.06	0.09	0.16	0.00	31.23	0.32	0.71	17.06	0.48	1.32	0.16	0.010	0.009	0.22	0.78	11.60	0.031	0.020	0.22	0.02	44.06	0.004	1.36	0.00	0.18	8.89	1.76	32.52	1.82	0.18	133.14	0.03	0.444	0.011	2.15	0.38	6.66	0.09
2052 Nov	Mean	105.03	125.53	0.02	0.01	0.64	0.06	0.11	0.19	0.00	32.08	0.38	0.73	20.12	0.52	1.48	0.16	0.011	0.009	0.23	0.80	11.91	0.037	0.023	0.23	0.02	51.91	0.005	1.61	0.00	0.20	9.13	2.07	38.42	1.87	0.18	153.65	0.04	0.457	0.012	2.44	0.41	7.55	0.09
2052 Dec	Mean	107.09	128.00	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.71	0.47	0.74	24.95	0.57	1.73	0.17	0.013	0.009	0.23	0.81	12.15	0.046	0.028	0.23	0.02	64.32	0.005	1.99	0.00	0.25	9.31	2.56	47.74	1.90	0.19	185.55	0.04	0.466	0.015	2.88	0.45	8.91	0.09
2053 Jan	Mean	106.00	126.69	0.03	0.01	0.86	0.07	0.14	0.26	0.00	32.38	0.53	0.73	28.22	0.59	1.88	0.17	0.014	0.009	0.23	0.81	12.02	0.052	0.032	0.23	0.02	72.72	0.005	2.26	0.00	0.27	9.22	2.89	54.14	1.88	0.18	206.75	0.04	0.461	0.016	3.16	0.48	9.79	0.09
2053 Feb	Mean	103.39	123.57	0.03	0.01	0.87	0.06	0.14	0.27	0.00	31.58	0.54	0.71	28.91	0.59	1.90	0.16	0.014	0.009	0.23	0.79	11.73	0.053	0.033	0.22	0.02	74.48	0.004	2.32	0.00	0.28	8.99	2.96	55.61	1.84	0.18	210.92	0.03	0.450	0.016	3.20	0.47	9.93	0.09
2053 Mar	Mean	99.84	119.34	0.03	0.01	0.84	0.06	0.13	0.26	0.00	30.50	0.52	0.69	27.92	0.57	1.83	0.16	0.013	0.009	0.22	0.76	11.33	0.051	0.032	0.22	0.02	71.95	0.004	2.24	0.00	0.27	8.68	2.86	53.77	1.78	0.17	203.84	0.03	0.434	0.016	3.09	0.46	9.59	0.09
2053 Apr	Mean	95.05	113.61	0.02	0.01	0.68	0.06	0.11	0.20	0.00	29.04	0.41	0.66	21.96	0.50	1.53	0.15	0.011	0.008	0.21	0.72	10.78	0.040	0.025	0.21	0.02	56.62	0.004	1.77	0.00	0.22	8.27	2.25	42.37	1.69	0.17	164.09	0.03	0.413	0.013	2.54	0.40	7.91	0.08
2053 May	Mean	2673.98	3195.99	0.20	0.26	5.47	1.23	1.15	1.25	0.12	816.84	2.99	18.47	102.40	9.55	21.70	4.19	0.256	0.233	5.87	20.31	303.32	0.246	0.115	5.78	0.61	287.25	0.116	8.45	0.00	1.56	232.52	9.40	188.48	47.54	4.65	1194.42	0.89	11.626	0.172	25.24	7.13	138.02	2.33
2053 Jun	Mean	1881.40	2248.68	0.12	0.17	3.36	0.85	0.74	0.71	0.08	574.73	1.74	13.00	53.34	6.56	14.26	2.94	0.172	0.164	4.13	14.29	213.42	0.137	0.061	4.06	0.43	153.44	0.082	4.54	0.00	0.93	163.60	4.77	98.25	33.45	3.27	723.56	0.63	8.180	0.111	16.17	4.86	90.13	1.64
2053 Jul	Mean	106.55	127.36	0.02	0.01	0.41	0.05	0.07	0.11	0.00	32.55	0.22	0.74	11.20	0.45	1.07	0.17	0.009	0.009	0.23	0.81	12.09	0.021	0.013	0.23	0.02	29.04	0.005	0.93	0.00	0.12	9.27	1.16	21.89	1.89	0.19	97.14	0.04	0.463	0.008	1.67	0.34	5.24	0.09
2053 Aug	Mean	103.78	124.04	0.02	0.01	0.51	0.06	0.09	0.14	0.00	31.70	0.29	0.72	15.02	0.47	1.24	0.16	0.010	0.009	0.23	0.79	11.77	0.028	0.017	0.22	0.02	38.82	0.005	1.22	0.00	0.16	9.02	1.55	28.88	1.85	0.18	120.73	0.03	0.451	0.010	1.99	0.36	6.16	0.09
2053 Sep	Mean	165.59	197.91	0.03	0.02	0.75	0.09	0.13	0.21	0.01	50.58	0.44	1.14	21.74	0.73	1.96	0.26	0.017	0.014	0.36	1.26	18.78	0.041	0.025	0.36	0.04	56.71	0.007	1.72	0.00	0.23	14.40	2.20	40.89	2.94	0.29	175.06	0.06	0.720	0.016	2.94	0.56	10.76	0.14
2053 Oct	Mean	107.43	128.40	0.02	0.01	0.57	0.06	0.10	0.16	0.00	32.82	0.33	0.74	17.36	0.50	1.37	0.17	0.011	0.009	0.24	0.82	12.19	0.032	0.020	0.23	0.02	44.86	0.005	1.40	0.00	0.18	9.34	1.79	33.32	1.91	0.19	136.60	0.04	0.467	0.011	2.21	0.39	6.93	0.09
2053 Nov	Mean	105.05	125.56	0.02	0.01	0.63	0.06	0.10	0.18	0.00	32.09	0.37	0.73	19.57	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.92	0.036	0.022	0.23	0.02	50.48	0.005	1.58	0.00	0.20	9.13	2.01	37.66	1.87	0.18	150.65	0.04	0.457	0.012	2.39	0.40	7.39	0.09
2053 Dec	Mean	107.24	128.17	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.76	0.46	0.74	24.65	0.57	1.71	0.17	0.013	0.009	0.24	0.81	12.16	0.045	0.028	0.23	0.02	63.56	0.005	1.99	0.00	0.24	9.33	2.53	47.50	1.91	0.19	184.29	0.04	0.466	0.014	2.85	0.45	8.83	0.09

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2020 Jan	Mean	112.54	128.92	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.33	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.03	0.91	1.72	0.22	17.63	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.45	132.25	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.20	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.60	11.91	0.000	0.001	0.25	0.02	0.20	0.005	0.05	1.05	0.01	7.13	0.03	0.99	1.76	0.22	18.36	0.03	0.541	0.003	0.60	0.23	0.73	0.11
2020 Mar	Mean	107.25	122.86	0.01	0.00	0.11	0.04	0.03	0.01	0.01	31.77	0.01	0.57	0.03	0.30	0.19	0.13	0.002	0.005	0.20	0.55	11.06	0.000	0.001	0.23	0.01	0.25	0.005	0.05	0.97	0.01	6.62	0.03	0.96	1.64	0.21	17.33	0.03	0.503	0.003	0.56	0.22	0.71	0.10
2020 Apr	Mean	100.68	115.34	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.82	0.01	0.53	0.05	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.39	0.000	0.001	0.21	0.01	0.25	0.005	0.05	0.91	0.01	6.22	0.03	0.90	1.54	0.20	16.26	0.03	0.472	0.003	0.52	0.20	0.74	0.09
2020 May	Mean	104.20	119.38	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.87	0.01	0.55	0.06	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.75	0.000	0.001	0.22	0.01	0.29	0.005	0.05	0.95	0.01	6.44	0.03	0.96	1.59	0.20	16.97	0.03	0.489	0.003	0.54	0.21	0.79	0.10
2020 Jun	Mean	105.66	121.05	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.30	0.01	0.56	0.09	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.90	0.000	0.001	0.23	0.01	0.36	0.005	0.05	0.96	0.01	6.53	0.03	1.04	1.61	0.21	17.63	0.03	0.495	0.003	0.56	0.21	0.75	0.10
2020 Jul	Mean	106.16	121.61	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.44	0.01	0.56	0.12	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.96	0.01	6.56	0.04	1.13	1.62	0.21	18.17	0.03	0.498	0.003	0.56	0.21	0.75	0.10
2020 Aug	Mean	106.38	121.87	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.51	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.98	0.000	0.001	0.23	0.01	0.48	0.005	0.05	0.97	0.01	6.57	0.04	1.17	1.62	0.21	18.43	0.03	0.499	0.003	0.57	0.21	0.74	0.10
2020 Sep	Mean	106.16	121.62	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.45	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.000	0.001	0.23	0.01	0.50	0.005	0.05	0.96	0.01	6.56	0.04	1.19	1.62	0.21	18.51	0.03	0.498	0.003	0.57	0.21	0.74	0.10
2020 Oct	Mean	106.11	121.55	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.43	0.01	0.56	0.17	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.001	0.001	0.23	0.01	0.56	0.005	0.05	0.96	0.01	6.55	0.05	1.25	1.62	0.21	18.83	0.03	0.498	0.003	0.57	0.21	0.75	0.10
2020 Nov	Mean	108.46	124.25	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.13	0.01	0.57	0.24	0.30	0.20	0.13	0.003	0.005	0.20	0.56	11.19	0.001	0.001	0.23	0.01	0.77	0.005	0.05	0.98	0.02	6.70	0.06	1.46	1.66	0.21	20.29	0.03	0.509	0.003	0.60	0.22	0.81	0.10
2020 Dec	Mean	113.57	130.11	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.64	0.02	0.60	0.42	0.32	0.22	0.14	0.003	0.005	0.21	0.59	11.72	0.001	0.001	0.24	0.01	1.26	0.005	0.05	1.03	0.02	7.01	0.08	1.94	1.73	0.22	23.64	0.03	0.533	0.003	0.65	0.23	0.89	0.11
2021 Jan	Mean	116.44	133.39	0.01	0.00	0.14	0.04	0.04	0.02	0.01	34.49	0.03	0.62	0.73	0.33	0.25	0.14	0.003	0.005	0.22	0.60	12.01	0.002	0.002	0.25	0.02	2.12	0.005	0.06	1.06	0.02	7.19	0.13	2.77	1.78	0.23	28.69	0.03	0.546	0.004	0.72	0.24	1.03	0.11
2021 Feb	Mean	113.10	129.56	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.50	0.03	0.60	1.02	0.32	0.26	0.14	0.003	0.005	0.21	0.58	11.67	0.003	0.003	0.24	0.01	2.89	0.005	0.06	1.03	0.03	6.98	0.17	3.46	1.73	0.22	32.25	0.03	0.530	0.004	0.76	0.24	1.12	0.11
2021 Mar	Mean	104.14	119.32	0.01	0.00	0.13	0.03	0.03	0.02	0.01	30.85	0.03	0.55	0.71	0.30	0.23	0.13	0.003	0.005	0.20	0.54	10.75	0.002	0.002	0.22	0.01	2.05	0.005	0.05	0.94	0.02	6.44	0.12	2.60	1.59	0.20	26.37	0.03	0.488	0.003	0.66	0.22	1.00	0.10
2021 Apr	Mean	99.18	113.67	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.39	0.02	0.53	0.29	0.28	0.20	0.12	0.003	0.005	0.19	0.51	10.24	0.001	0.001	0.21	0.01	0.91	0.005	0.05	0.89	0.02	6.15	0.06	1.46	1.52	0.19	19.37	0.03	0.465	0.003	0.56	0.20	0.99	0.09
2021 May	Mean	103.21	118.31	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.58	0.01	0.55	0.23	0.29	0.21	0.13	0.003	0.005	0.19	0.54	10.66	0.001	0.001	0.22	0.01	0.77	0.005	0.05	0.92	0.02	6.41	0.05	1.34	1.58	0.20	19.16	0.03	0.483	0.003	0.57	0.21	1.08	0.10
2021 Jun	Mean	105.15	120.48	0.01	0.00	0.12	0.03	0.03	0.02	0.01	31.15	0.02	0.56	0.37	0.29	0.21	0.13	0.003	0.005	0.20	0.54	10.85	0.001	0.001	0.22	0.01	1.13	0.005	0.05	0.95	0.02	6.50	0.07	1.74	1.61	0.20	21.58	0.03	0.493	0.003	0.60	0.21	0.93	0.10
2021 Jul	Mean	105.64	121.02	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.29	0.02	0.56	0.59	0.30	0.22	0.13	0.003	0.005	0.20	0.54	10.90	0.002	0.002	0.23	0.01	1.71	0.005	0.05	0.96	0.02	6.53	0.11	2.30	1.61	0.21	24.84	0.03	0.495	0.003	0.64	0.22	0.94	0.10
2021 Aug	Mean	105.71	121.10	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.31	0.03	0.56	0.75	0.30	0.23	0.13	0.003	0.005	0.20	0.55	10.91	0.002	0.002	0.23	0.01	2.17	0.005	0.05	0.96	0.02	6.53	0.13	2.73	1.61	0.21	27.30	0.03	0.496	0.003	0.67	0.22	0.99	0.10
2021 Sep	Mean	105.29	120.61	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.19	0.03	0.56	0.91	0.30	0.24	0.13	0.003	0.005	0.20	0.54	10.86	0.002	0.002	0.22	0.01	2.58	0.005	0.05	0.96	0.02	6.50	0.15	3.12	1.61	0.20	29.44	0.03	0.494	0.003	0.70	0.22	1.04	0.10
2021 Oct	Mean	105.03	120.32	0.01	0.00	0.15	0.03	0.04	0.02	0.01	31.11	0.04	0.56	1.11	0.30	0.26	0.13	0.003	0.005	0.20	0.54	10.84	0.003	0.003	0.22	0.01	3.15	0.005	0.05	0.95	0.03	6.49	0.18	3.64	1.60	0.20	32.41	0.03	0.492	0.003	0.73	0.22	1.13	0.10
2021 Nov	Mean	107.25	122.86	0.01	0.00	0.16	0.03	0.04	0.03	0.01	31.77	0.05	0.57	1.49	0.31	0.29	0.13	0.003	0.005	0.20	0.55	11.07	0.004	0.004	0.23	0.01	4.20	0.005	0.06	0.97	0.03	6.63	0.24	4.62	1.64	0.21	38.26	0.03	0.503	0.004	0.81	0.23	1.31	0.10
2021 Dec	Mean	111.80	128.07	0.01	0.00	0.20	0.04	0.04	0.03	0.01	33.11	0.07	0.59	2.33	0.34	0.35	0.14	0.003	0.005	0.21	0.58	11.54	0.006	0.005	0.24	0.01	6.48	0.005	0.06	1.01	0.04	6.91	0.36	6.77	1.71	0.22	51.10	0.03	0.524	0.004	0.98	0.25	1.66	0.10
2022 Jan	Mean	113.01	129.46	0.01	0.00	0.25	0.04	0.05	0.03	0.01	33.47	0.08	0.60	2.38	0.36	0.44	0.14	0.004	0.005	0.21	0.58	11.66	0.010	0.006	0.24	0.01	6.28	0.005	0.07	1.03	0.06	6.98	0.55	5.74	1.73	0.22	50.72	0.03	0.530	0.005	0.99	0.27	2.16	0.11
2022 Feb	Mean	108.88	124.73	0.01	0.00	0.28	0.04	0.05	0.03	0.01	32.25	0.09	0.58	1.94	0.36	0.50	0.13	0.004	0.005	0.20	0.56	11.23	0.012	0.005	0.23	0.01	4.70	0.005	0.07	0.99	0.07	6.73	0.68	3.28	1.66	0.21	42.28	0.03	0.511	0.006	0.88	0.27	2.51	0.10
2022 Mar	Mean	100.78	115.47	0.01	0.00	0.24	0.03	0.05	0.02	0.01	29.85	0.07	0.53	1.31	0.32	0.43	0.12	0.004	0.005	0.19																								

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jul	Mean	100.63	115.30	0.01	0.00	0.29	0.04	0.06	0.03	0.01	29.81	0.11	0.53	1.99	0.34	0.53	0.12	0.004	0.005	0.19	0.52	10.39	0.014	0.005	0.21	0.01	4.72	0.005	0.07	0.91	0.08	6.23	0.76	2.86	1.54	0.20	41.24	0.03	0.472	0.006	0.84	0.26	2.81	0.09
2023 Aug	Mean	99.96	114.52	0.01	0.00	0.33	0.04	0.06	0.03	0.01	29.61	0.13	0.53	2.39	0.35	0.60	0.12	0.005	0.005	0.19	0.52	10.32	0.016	0.006	0.21	0.01	5.63	0.005	0.08	0.91	0.09	6.18	0.91	3.27	1.53	0.19	46.28	0.03	0.469	0.007	0.91	0.27	3.16	0.09
2023 Sep	Mean	99.22	113.67	0.01	0.00	0.35	0.04	0.06	0.03	0.01	29.39	0.15	0.53	2.61	0.36	0.63	0.12	0.005	0.005	0.19	0.51	10.24	0.018	0.007	0.21	0.01	6.13	0.005	0.08	0.90	0.10	6.13	0.99	3.49	1.51	0.19	49.01	0.03	0.465	0.007	0.94	0.28	3.34	0.09
2023 Oct	Mean	98.91	113.32	0.01	0.00	0.36	0.04	0.06	0.03	0.01	29.30	0.15	0.52	2.69	0.36	0.65	0.12	0.005	0.005	0.19	0.51	10.21	0.018	0.007	0.21	0.01	6.30	0.005	0.08	0.90	0.10	6.11	1.02	3.57	1.51	0.19	49.94	0.03	0.464	0.007	0.95	0.28	3.43	0.09
2023 Nov	Mean	101.00	115.72	0.01	0.00	0.36	0.04	0.06	0.03	0.01	29.92	0.15	0.54	2.68	0.36	0.65	0.13	0.005	0.005	0.19	0.52	10.42	0.018	0.007	0.22	0.01	6.30	0.005	0.08	0.91	0.10	6.25	1.02	3.58	1.54	0.20	50.17	0.03	0.473	0.007	0.96	0.28	3.49	0.09
2023 Dec	Mean	105.37	120.72	0.02	0.01	0.42	0.04	0.07	0.04	0.01	31.21	0.18	0.56	3.22	0.39	0.75	0.13	0.006	0.005	0.20	0.54	10.87	0.022	0.009	0.22	0.01	7.54	0.005	0.09	0.95	0.12	6.51	1.22	4.17	1.61	0.20	57.77	0.03	0.494	0.008	1.07	0.31	4.03	0.10
2024 Jan	Mean	105.37	120.71	0.02	0.01	0.50	0.04	0.08	0.05	0.01	31.21	0.22	0.56	3.99	0.42	0.91	0.13	0.007	0.005	0.20	0.54	10.87	0.028	0.010	0.22	0.01	9.26	0.005	0.10	0.96	0.15	6.51	1.55	4.74	1.61	0.20	67.57	0.03	0.494	0.010	1.20	0.33	4.89	0.10
2024 Feb	Mean	98.47	112.82	0.02	0.01	0.51	0.04	0.09	0.05	0.01	29.17	0.22	0.52	4.06	0.41	0.93	0.12	0.007	0.004	0.19	0.51	10.16	0.029	0.010	0.21	0.01	9.33	0.004	0.10	0.89	0.15	6.09	1.61	4.50	1.50	0.19	67.09	0.03	0.462	0.010	1.17	0.32	5.03	0.09
2024 Mar	Mean	95.42	109.36	0.01	0.01	0.37	0.04	0.06	0.03	0.01	28.27	0.15	0.51	2.68	0.35	0.68	0.12	0.006	0.004	0.18	0.49	9.85	0.019	0.007	0.20	0.01	6.22	0.004	0.08	0.86	0.10	5.92	1.06	3.16	1.46	0.19	48.77	0.03	0.447	0.008	0.93	0.28	3.82	0.09
2024 Apr	Mean	91.99	105.55	0.01	0.00	0.22	0.03	0.04	0.02	0.01	27.28	0.08	0.49	1.29	0.30	0.44	0.12	0.005	0.004	0.17	0.48	9.53	0.010	0.003	0.20	0.01	3.16	0.004	0.06	0.80	0.05	5.77	0.49	1.85	1.41	0.18	30.11	0.03	0.430	0.005	0.68	0.22	2.98	0.09
2024 May	Mean	95.99	110.18	0.01	0.00	0.19	0.03	0.04	0.02	0.01	28.47	0.06	0.51	1.04	0.30	0.41	0.12	0.005	0.005	0.18	0.51	9.95	0.008	0.003	0.20	0.01	2.62	0.004	0.06	0.83	0.05	6.03	0.39	1.65	1.48	0.19	27.48	0.03	0.449	0.005	0.66	0.22	2.91	0.09
2024 Jun	Mean	99.56	114.13	0.01	0.00	0.26	0.04	0.05	0.03	0.01	29.50	0.09	0.53	1.63	0.33	0.49	0.12	0.005	0.005	0.19	0.52	10.29	0.012	0.004	0.21	0.01	3.87	0.005	0.07	0.89	0.07	6.19	0.65	2.24	1.52	0.19	35.94	0.03	0.466	0.006	0.78	0.25	2.87	0.09
2024 Jul	Mean	98.80	113.21	0.01	0.00	0.35	0.04	0.06	0.03	0.01	29.27	0.13	0.52	2.47	0.36	0.64	0.12	0.005	0.005	0.19	0.51	10.20	0.018	0.006	0.21	0.01	5.73	0.005	0.08	0.89	0.10	6.12	0.99	3.01	1.51	0.19	46.70	0.03	0.463	0.007	0.91	0.28	3.49	0.09
2024 Aug	Mean	97.64	111.87	0.02	0.01	0.40	0.04	0.07	0.04	0.01	28.92	0.16	0.52	2.98	0.37	0.73	0.12	0.006	0.004	0.18	0.50	10.08	0.021	0.008	0.21	0.01	6.88	0.004	0.08	0.88	0.11	6.04	1.19	3.46	1.49	0.19	53.07	0.03	0.458	0.008	0.99	0.29	3.96	0.09
2024 Sep	Mean	96.58	110.65	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.61	0.17	0.51	3.22	0.38	0.77	0.12	0.006	0.004	0.18	0.50	9.97	0.023	0.008	0.21	0.01	7.41	0.004	0.09	0.88	0.12	5.97	1.29	3.67	1.47	0.19	55.96	0.03	0.453	0.008	1.02	0.29	4.16	0.09
2024 Oct	Mean	96.16	110.17	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.48	0.17	0.51	3.24	0.37	0.77	0.12	0.006	0.004	0.18	0.50	9.92	0.023	0.008	0.21	0.01	7.47	0.004	0.09	0.87	0.12	5.95	1.29	3.69	1.47	0.19	56.20	0.03	0.451	0.008	1.02	0.29	4.22	0.09
2024 Nov	Mean	98.19	112.52	0.02	0.01	0.43	0.04	0.07	0.04	0.01	29.09	0.17	0.52	3.24	0.38	0.78	0.12	0.006	0.004	0.19	0.51	10.14	0.023	0.008	0.21	0.01	7.48	0.004	0.09	0.89	0.12	6.08	1.29	3.70	1.50	0.19	56.41	0.03	0.460	0.009	1.03	0.30	4.32	0.09
2024 Dec	Mean	100.33	114.95	0.02	0.01	0.50	0.04	0.08	0.05	0.01	29.72	0.21	0.53	3.94	0.41	0.91	0.12	0.007	0.005	0.19	0.52	10.35	0.028	0.010	0.21	0.01	9.04	0.005	0.10	0.91	0.15	6.21	1.57	4.34	1.53	0.19	65.67	0.03	0.470	0.010	1.16	0.32	5.00	0.09
2025 Jan	Mean	103.21	118.24	0.02	0.01	0.47	0.04	0.08	0.04	0.01	30.57	0.18	0.55	3.44	0.40	0.84	0.13	0.006	0.005	0.19	0.53	10.65	0.025	0.009	0.22	0.01	7.84	0.005	0.09	0.94	0.13	6.38	1.42	3.64	1.58	0.20	59.60	0.03	0.484	0.009	1.09	0.32	4.50	0.10
2025 Feb	Mean	103.73	118.83	0.02	0.01	0.45	0.04	0.08	0.04	0.01	30.73	0.17	0.55	3.27	0.40	0.82	0.13	0.006	0.005	0.20	0.53	10.70	0.024	0.008	0.22	0.01	7.40	0.005	0.09	0.94	0.13	6.41	1.37	3.39	1.58	0.20	57.34	0.03	0.486	0.009	1.06	0.32	4.34	0.10
2025 Mar	Mean	101.43	116.19	0.02	0.01	0.43	0.04	0.07	0.04	0.01	30.04	0.16	0.54	3.04	0.39	0.77	0.13	0.006	0.005	0.19	0.52	10.46	0.023	0.008	0.22	0.01	6.89	0.005	0.09	0.92	0.12	6.26	1.28	3.16	1.55	0.20	54.10	0.03	0.476	0.008	1.01	0.30	4.07	0.10
2025 Apr	Mean	336.25	385.65	0.03	0.01	0.70	0.11	0.15	0.07	0.02	99.68	0.20	1.79	3.51	1.05	1.35	0.42	0.014	0.016	0.64	1.76	34.79	0.027	0.010	0.72	0.04	8.44	0.015	0.20	2.97	0.17	21.00	1.46	5.34	5.16	0.65	95.56	0.10	1.574	0.017	2.29	0.79	7.96	0.31
2025 May	Mean	5090.64	5842.41	0.31	0.20	6.84	1.65	1.69	0.83	0.28	1509.84	1.43	27.28	19.56	14.72	14.49	6.38	0.202	0.241	9.65	26.78	527.43	0.164	0.065	10.86	0.69	55.02	0.232	2.65	44.28	1.30	319.83	7.69	54.77	78.24	9.84	1018.29	1.51	23.799	0.195	29.19	10.81	97.04	4.76
2025 Jun	Mean	2271.67	2605.84	0.14	0.08	2.94	0.73	0.74	0.35	0.13	673.51	0.56	12.13	7.43	6.51	6.01	2.84	0.083	0.106	4.30	11.88	235.09	0.062	0.026	4.85	0.30	21.13	0.103	1.16	20.00	0.53	142.06	3.01	23.48	34.85	4.40	438.88	0.67	10.629	0.082	12.81	4.78	38.02	2.13
2025 Jul	Mean	132.82	152.19	0.01	0.00	0.29	0.05	0.06	0.03	0.01	39.35	0.08	0.70	1.49	0.42	0.53	0.16	0.005	0.006	0.25	0.69	13.71	0.011	0.004	0.28	0.02	3.49	0.006	0.08	1.20	0.07	8.22	0.64	2.20	2.03	0.26	39.31	0.04	0.623	0.006	0.92	0.32	2.70	0.12
2025 Aug	Mean	101.13	115.85	0.01	0.00	0.29	0.04	0.06	0.03	0.01	29.95	0.10	0.54	1.79	0.34	0.52	0.13	0.004	0.005	0.19	0.52	10.43	0.013	0.005	0.22	0.01	4.09	0.005	0.07	0.92	0.08	6.25	0.76	2.18	1.54	0.20	38.21	0.03	0.474	0.006	0.81	0.26	2.67	0.09
2025 Sep	Mean	100.17	114.75	0.01	0.00	0.31	0.04	0.06	0.03	0.01	29.67	0.11	0.53	1.99	0.35	0.56	0.12	0.005</																										

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	102.69	117.64	0.02	0.01	0.59	0.04	0.10	0.06	0.01	30.42	0.29	0.54	5.22	0.45	1.07	0.13	0.008	0.005	0.19	0.53	10.59	0.034	0.014	0.22	0.01	12.26	0.005	0.11	0.93	0.18	6.34	1.91	6.67	1.57	0.20	83.71	0.03	0.482	0.011	1.39	0.36	5.79	0.10
2027 Feb	Mean	100.69	115.35	0.02	0.01	0.60	0.04	0.10	0.05	0.01	29.82	0.25	0.53	4.75	0.44	1.08	0.12	0.008	0.005	0.19	0.52	10.39	0.035	0.012	0.21	0.01	10.79	0.005	0.11	0.92	0.18	6.22	1.94	4.81	1.54	0.20	75.90	0.03	0.472	0.011	1.29	0.35	5.86	0.09
2027 Mar	Mean	97.81	112.04	0.02	0.01	0.57	0.04	0.09	0.05	0.01	28.97	0.22	0.52	4.34	0.43	1.03	0.12	0.007	0.004	0.18	0.50	10.09	0.033	0.011	0.21	0.01	9.73	0.004	0.11	0.89	0.17	6.04	1.85	3.95	1.49	0.19	69.74	0.03	0.459	0.011	1.21	0.34	5.60	0.09
2027 Apr	Mean	230.52	264.86	0.03	0.01	0.69	0.09	0.13	0.07	0.01	68.42	0.23	1.25	4.32	0.80	1.38	0.29	0.014	0.011	0.44	1.23	23.95	0.034	0.011	0.49	0.03	10.05	0.010	0.17	1.95	0.19	14.63	1.83	4.80	3.56	0.44	89.40	0.07	1.076	0.016	1.89	0.61	8.61	0.22
2027 May	Mean	4412.26	5080.21	0.29	0.24	6.36	1.49	1.53	0.82	0.24	1311.70	1.56	24.18	22.15	13.10	15.63	5.63	0.238	0.222	8.47	24.01	460.53	0.198	0.065	9.42	0.63	62.98	0.200	2.48	35.38	1.36	285.51	8.26	50.93	68.64	8.46	950.27	1.32	20.515	0.200	26.39	9.64	122.23	4.10
2027 Jun	Mean	2855.48	3283.62	0.18	0.14	4.07	0.95	0.98	0.50	0.16	848.12	0.93	15.51	13.36	8.41	9.39	3.62	0.136	0.140	5.45	15.34	297.18	0.117	0.041	6.10	0.40	37.29	0.130	1.57	23.66	0.84	182.67	5.22	32.11	44.21	5.49	603.19	0.85	13.305	0.122	16.88	6.20	68.38	2.66
2027 Jul	Mean	164.81	188.99	0.02	0.01	0.42	0.06	0.08	0.04	0.01	48.85	0.12	0.88	2.28	0.54	0.77	0.21	0.007	0.008	0.31	0.86	17.04	0.018	0.006	0.35	0.02	5.25	0.008	0.11	1.46	0.10	10.27	1.00	2.82	2.53	0.32	53.86	0.05	0.772	0.009	1.21	0.41	4.27	0.15
2027 Aug	Mean	98.73	113.11	0.02	0.01	0.38	0.04	0.07	0.03	0.01	29.24	0.13	0.52	2.53	0.37	0.69	0.12	0.005	0.004	0.19	0.51	10.19	0.020	0.006	0.21	0.01	5.67	0.005	0.08	0.90	0.11	6.10	1.11	2.45	1.51	0.19	46.93	0.03	0.463	0.008	0.92	0.29	3.63	0.09
2027 Sep	Mean	97.56	111.76	0.02	0.01	0.41	0.04	0.07	0.03	0.01	28.90	0.14	0.52	2.77	0.37	0.73	0.12	0.005	0.004	0.18	0.50	10.07	0.022	0.007	0.21	0.01	6.19	0.004	0.08	0.89	0.12	6.03	1.21	2.60	1.49	0.19	49.73	0.03	0.457	0.008	0.95	0.29	3.89	0.09
2027 Oct	Mean	120.64	138.23	0.02	0.01	0.47	0.05	0.08	0.04	0.01	35.74	0.16	0.64	3.11	0.45	0.85	0.15	0.007	0.006	0.23	0.62	12.45	0.024	0.008	0.26	0.02	6.97	0.006	0.10	1.09	0.13	7.47	1.36	3.01	1.84	0.23	57.49	0.04	0.565	0.009	1.12	0.35	4.53	0.11
2027 Nov	Mean	101.02	115.73	0.02	0.01	0.45	0.04	0.08	0.04	0.01	29.92	0.16	0.53	3.13	0.39	0.81	0.13	0.006	0.005	0.19	0.52	10.42	0.024	0.008	0.22	0.01	6.99	0.005	0.09	0.92	0.13	6.24	1.37	2.87	1.54	0.20	54.81	0.03	0.474	0.009	1.02	0.31	4.34	0.09
2027 Dec	Mean	102.89	117.87	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.48	0.20	0.54	4.02	0.43	1.00	0.13	0.007	0.005	0.19	0.53	10.62	0.031	0.010	0.22	0.01	8.93	0.005	0.11	0.93	0.16	6.35	1.75	3.46	1.57	0.20	66.11	0.03	0.482	0.011	1.18	0.34	5.38	0.10
2028 Jan	Mean	102.45	117.36	0.02	0.01	0.61	0.04	0.10	0.05	0.01	30.34	0.23	0.54	4.56	0.45	1.11	0.13	0.008	0.005	0.19	0.53	10.57	0.036	0.011	0.22	0.01	10.13	0.005	0.11	0.93	0.18	6.33	1.99	3.82	1.56	0.20	72.89	0.03	0.480	0.012	1.26	0.36	6.02	0.10
2028 Feb	Mean	100.60	115.24	0.02	0.01	0.62	0.04	0.10	0.05	0.01	29.80	0.23	0.53	4.64	0.45	1.12	0.12	0.008	0.005	0.19	0.52	10.38	0.036	0.011	0.21	0.01	10.30	0.005	0.11	0.91	0.19	6.21	2.02	3.85	1.54	0.20	73.57	0.03	0.472	0.012	1.27	0.36	6.10	0.09
2028 Mar	Mean	97.42	111.60	0.02	0.01	0.60	0.04	0.10	0.05	0.01	28.85	0.22	0.52	4.45	0.43	1.08	0.12	0.007	0.004	0.18	0.50	10.05	0.035	0.011	0.21	0.01	9.87	0.004	0.11	0.89	0.18	6.02	1.94	3.69	1.49	0.19	70.62	0.03	0.457	0.011	1.22	0.35	5.86	0.09
2028 Apr	Mean	138.96	159.38	0.02	0.01	0.57	0.05	0.10	0.05	0.01	41.20	0.20	0.74	3.85	0.53	1.06	0.17	0.009	0.006	0.26	0.73	14.38	0.030	0.010	0.30	0.02	8.72	0.006	0.12	1.23	0.16	8.68	1.67	3.64	2.13	0.27	69.38	0.04	0.650	0.012	1.33	0.41	6.16	0.13
2028 May	Mean	2845.25	3276.67	0.20	0.19	4.43	0.98	1.04	0.62	0.15	845.98	1.29	15.61	18.82	8.59	11.69	3.64	0.192	0.144	5.46	15.52	297.11	0.171	0.049	6.08	0.41	53.63	0.129	1.64	22.69	1.03	184.46	6.62	35.51	44.30	5.45	651.25	0.85	13.224	0.151	17.59	6.35	104.80	2.64
2028 Jun	Mean	2647.45	3048.86	0.17	0.17	3.88	0.90	0.93	0.55	0.14	787.16	1.10	14.53	15.34	7.91	10.43	3.38	0.176	0.134	5.08	14.44	276.46	0.142	0.041	5.65	0.38	45.13	0.120	1.50	21.12	0.88	171.63	5.22	31.63	41.22	5.07	579.06	0.79	12.305	0.136	16.02	5.83	94.83	2.46
2028 Jul	Mean	99.99	114.58	0.01	0.00	0.33	0.04	0.06	0.03	0.01	29.62	0.11	0.53	2.05	0.35	0.60	0.12	0.005	0.005	0.19	0.52	10.32	0.016	0.005	0.21	0.01	4.63	0.005	0.08	0.90	0.09	6.19	0.90	2.15	1.53	0.19	41.08	0.03	0.469	0.007	0.84	0.27	3.17	0.09
2028 Aug	Mean	99.55	114.06	0.02	0.01	0.41	0.04	0.07	0.04	0.01	29.49	0.14	0.53	2.81	0.38	0.75	0.12	0.006	0.005	0.19	0.51	10.27	0.022	0.007	0.21	0.01	6.30	0.005	0.09	0.90	0.12	6.16	1.23	2.64	1.52	0.19	50.55	0.03	0.467	0.008	0.97	0.30	4.01	0.09
2028 Sep	Mean	96.82	110.92	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.68	0.15	0.51	3.00	0.38	0.78	0.12	0.006	0.004	0.18	0.50	9.99	0.023	0.007	0.21	0.01	6.69	0.004	0.09	0.88	0.12	5.98	1.31	2.74	1.48	0.19	52.44	0.03	0.454	0.008	0.98	0.30	4.19	0.09
2028 Oct	Mean	141.96	163.15	0.02	0.01	0.56	0.06	0.10	0.05	0.01	42.15	0.20	0.77	3.90	0.54	1.13	0.18	0.011	0.007	0.27	0.76	14.75	0.031	0.009	0.30	0.02	8.98	0.006	0.12	1.19	0.16	9.03	1.65	3.71	2.19	0.27	70.04	0.04	0.662	0.013	1.36	0.42	7.35	0.13
2028 Nov	Mean	100.26	114.86	0.02	0.01	0.47	0.04	0.08	0.04	0.01	29.70	0.17	0.53	3.33	0.40	0.85	0.12	0.006	0.005	0.19	0.52	10.34	0.026	0.008	0.21	0.01	7.42	0.005	0.09	0.91	0.14	6.19	1.46	2.99	1.53	0.19	57.13	0.03	0.470	0.009	1.05	0.32	4.58	0.09
2028 Dec	Mean	102.78	117.75	0.02	0.01	0.57	0.04	0.09	0.05	0.01	30.44	0.21	0.54	4.17	0.44	1.03	0.13	0.007	0.005	0.19	0.53	10.60	0.032	0.010	0.22	0.01	9.27	0.005	0.11	0.93	0.17	6.35	1.82	3.56	1.57	0.20	68.03	0.03	0.482	0.011	1.20	0.35	5.57	0.10
2029 Jan	Mean	102.19	117.06	0.02	0.01	0.64	0.05	0.10	0.05	0.01	30.27	0.24	0.54	4.84	0.46	1.16	0.13	0.008	0.005	0.19	0.53	10.54	0.037	0.012	0.22	0.01	10.76	0.005	0.12	0.93	0.19	6.31	2.10	4.07	1.56	0.20	76.39	0.03	0.479	0.012	1.31	0.37	6.32	0.10
2029 Feb	Mean	99.78	114.30	0.03	0.01	0.66	0.05	0.11	0.06	0.01	29.55	0.25	0.53	5.06	0.46	1.19	0.12	0.008	0.005	0.19	0.51	10.29	0.039	0.012	0.21	0.01	11.26	0.005	0.12	0.91	0.20	6.16	2.18	4.27	1.52	0.19	78.84	0.03	0.468	0.013	1.33	0.37	6.53	0.09
2029 Mar	Mean	96.48	110.53	0.02	0.01	0.64	0.04	0.10	0.05	0.01	28.58	0.25	0.51																															

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	141.37	162.13	0.02	0.01	0.44	0.05	0.08	0.04	0.01	41.91	0.14	0.75	2.77	0.49	0.84	0.18	0.008	0.007	0.27	0.74	14.62	0.022	0.007	0.30	0.02	6.35	0.006	0.11	1.25	0.12	8.82	1.19	2.97	2.17	0.27	56.14	0.04	0.662	0.010	1.17	0.38	4.93	0.13
2030 Aug	Mean	97.21	111.38	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.80	0.15	0.51	3.02	0.38	0.78	0.12	0.006	0.004	0.18	0.50	10.03	0.023	0.007	0.21	0.01	6.75	0.004	0.09	0.88	0.12	6.01	1.32	2.78	1.48	0.19	52.74	0.03	0.456	0.009	0.99	0.30	4.23	0.09
2030 Sep	Mean	96.31	110.34	0.02	0.01	0.45	0.04	0.08	0.04	0.01	28.53	0.16	0.51	3.20	0.38	0.82	0.12	0.006	0.004	0.18	0.50	9.94	0.025	0.008	0.21	0.01	7.14	0.004	0.09	0.87	0.13	5.95	1.39	2.90	1.47	0.19	54.86	0.03	0.452	0.009	1.01	0.30	4.41	0.09
2030 Oct	Mean	96.58	110.64	0.02	0.01	0.45	0.04	0.08	0.04	0.01	28.61	0.16	0.51	3.14	0.38	0.81	0.12	0.006	0.004	0.18	0.50	9.97	0.024	0.008	0.21	0.01	7.02	0.004	0.09	0.88	0.13	5.97	1.37	2.86	1.47	0.19	54.24	0.03	0.453	0.009	1.00	0.30	4.33	0.09
2030 Nov	Mean	99.86	114.40	0.02	0.01	0.50	0.04	0.08	0.04	0.01	29.58	0.18	0.53	3.56	0.41	0.90	0.12	0.006	0.005	0.19	0.52	10.30	0.028	0.009	0.21	0.01	7.93	0.005	0.10	0.91	0.14	6.17	1.55	3.16	1.52	0.19	59.93	0.03	0.468	0.010	1.09	0.32	4.82	0.09
2030 Dec	Mean	102.09	116.95	0.02	0.01	0.61	0.04	0.10	0.05	0.01	30.24	0.22	0.54	4.50	0.45	1.09	0.13	0.008	0.005	0.19	0.53	10.53	0.035	0.011	0.22	0.01	10.00	0.005	0.11	0.93	0.18	6.30	1.96	3.81	1.56	0.20	72.06	0.03	0.479	0.012	1.25	0.36	5.94	0.10
2031 Jan	Mean	101.38	116.14	0.03	0.01	0.68	0.05	0.11	0.06	0.01	30.03	0.25	0.54	5.15	0.47	1.23	0.13	0.008	0.005	0.19	0.52	10.46	0.040	0.012	0.22	0.01	11.41	0.005	0.12	0.92	0.20	6.26	2.24	4.19	1.55	0.20	80.01	0.03	0.475	0.013	1.35	0.38	6.71	0.10
2031 Feb	Mean	98.97	113.37	0.03	0.01	0.70	0.05	0.11	0.06	0.01	29.31	0.26	0.52	5.32	0.47	1.26	0.12	0.009	0.005	0.19	0.51	10.21	0.042	0.013	0.21	0.01	11.78	0.005	0.12	0.90	0.21	6.11	2.33	4.24	1.51	0.19	81.77	0.03	0.464	0.013	1.37	0.38	6.92	0.09
2031 Mar	Mean	95.70	109.63	0.03	0.01	0.67	0.04	0.11	0.06	0.01	28.35	0.25	0.51	5.14	0.46	1.22	0.12	0.008	0.004	0.18	0.49	9.87	0.040	0.012	0.20	0.01	11.37	0.004	0.12	0.87	0.20	5.91	2.25	4.08	1.46	0.19	78.94	0.03	0.449	0.013	1.32	0.37	6.69	0.09
2031 Apr	Mean	104.26	119.51	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.90	0.20	0.55	4.00	0.44	1.01	0.13	0.008	0.005	0.20	0.54	10.77	0.031	0.010	0.22	0.01	8.94	0.005	0.11	0.93	0.16	6.48	1.74	3.41	1.59	0.20	65.89	0.03	0.488	0.011	1.18	0.35	5.76	0.10
2031 May	Mean	3315.60	3817.98	0.24	0.25	5.35	1.14	1.23	0.80	0.18	985.76	1.75	18.18	25.34	10.09	15.03	4.24	0.259	0.167	6.37	18.07	346.16	0.236	0.060	7.08	0.47	73.31	0.150	1.94	26.51	1.30	214.78	8.37	41.66	51.60	6.36	779.99	1.00	15.413	0.197	20.80	7.43	148.82	3.08
2031 Jun	Mean	2651.71	3051.52	0.18	0.18	4.03	0.90	0.95	0.60	0.14	788.01	1.23	14.48	17.44	7.96	11.05	3.38	0.190	0.132	5.08	14.35	276.44	0.164	0.043	5.66	0.37	51.16	0.120	1.50	21.56	0.93	170.77	5.75	31.58	41.17	5.09	592.69	0.79	12.340	0.146	16.20	5.85	106.84	2.47
2031 Jul	Mean	123.63	141.74	0.02	0.01	0.40	0.05	0.07	0.04	0.01	36.64	0.13	0.66	2.53	0.43	0.75	0.15	0.007	0.006	0.23	0.64	12.78	0.020	0.006	0.26	0.02	5.75	0.006	0.09	1.10	0.11	7.69	1.10	2.61	1.89	0.24	50.39	0.04	0.579	0.009	1.04	0.33	4.34	0.12
2031 Aug	Mean	96.83	110.94	0.02	0.01	0.45	0.04	0.08	0.04	0.01	28.68	0.16	0.51	3.11	0.38	0.81	0.12	0.006	0.004	0.18	0.50	9.99	0.024	0.008	0.21	0.01	6.93	0.004	0.09	0.88	0.13	5.99	1.36	2.77	1.48	0.19	53.76	0.03	0.454	0.009	1.00	0.30	4.36	0.09
2031 Sep	Mean	95.45	109.36	0.02	0.01	0.48	0.04	0.08	0.04	0.01	28.27	0.17	0.51	3.42	0.39	0.87	0.12	0.006	0.004	0.18	0.49	9.85	0.027	0.008	0.20	0.01	7.60	0.004	0.09	0.87	0.14	5.90	1.50	2.96	1.46	0.19	57.44	0.03	0.448	0.009	1.04	0.31	4.70	0.09
2031 Oct	Mean	109.43	125.43	0.02	0.01	0.53	0.04	0.09	0.05	0.01	32.43	0.19	0.58	3.74	0.44	0.97	0.14	0.007	0.005	0.21	0.57	11.30	0.029	0.009	0.23	0.01	8.36	0.005	0.10	0.98	0.15	6.79	1.63	3.27	1.67	0.21	63.41	0.03	0.513	0.011	1.16	0.35	5.46	0.10
2031 Nov	Mean	98.35	112.67	0.02	0.01	0.55	0.04	0.09	0.05	0.01	29.13	0.20	0.52	4.03	0.42	1.00	0.12	0.007	0.004	0.19	0.51	10.15	0.032	0.010	0.21	0.01	8.94	0.004	0.10	0.89	0.16	6.08	1.77	3.38	1.50	0.19	65.50	0.03	0.461	0.011	1.15	0.34	5.41	0.09
2031 Dec	Mean	100.15	114.73	0.03	0.01	0.68	0.05	0.11	0.06	0.01	29.66	0.25	0.53	5.12	0.47	1.22	0.12	0.008	0.005	0.19	0.52	10.33	0.040	0.012	0.21	0.01	11.33	0.005	0.12	0.91	0.20	6.18	2.24	4.09	1.53	0.19	79.36	0.03	0.470	0.013	1.34	0.38	6.70	0.09
2032 Jan	Mean	99.40	113.87	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.44	0.28	0.53	5.77	0.49	1.35	0.12	0.009	0.005	0.19	0.51	10.26	0.045	0.014	0.21	0.01	12.78	0.005	0.13	0.90	0.23	6.14	2.51	4.58	1.52	0.19	87.50	0.03	0.466	0.014	1.44	0.40	7.44	0.09
2032 Feb	Mean	97.32	111.48	0.03	0.01	0.75	0.05	0.12	0.06	0.01	28.82	0.29	0.51	5.85	0.49	1.36	0.12	0.009	0.004	0.18	0.50	10.04	0.045	0.014	0.21	0.01	12.97	0.004	0.13	0.88	0.23	6.01	2.54	4.68	1.49	0.19	88.21	0.03	0.456	0.014	1.45	0.40	7.49	0.09
2032 Mar	Mean	94.36	108.10	0.03	0.01	0.72	0.05	0.11	0.06	0.01	27.95	0.28	0.50	5.59	0.47	1.30	0.12	0.009	0.004	0.18	0.49	9.74	0.043	0.013	0.20	0.01	12.39	0.004	0.12	0.86	0.22	5.83	2.42	4.50	1.44	0.18	84.47	0.03	0.443	0.013	1.39	0.38	7.15	0.09
2032 Apr	Mean	109.05	125.09	0.02	0.01	0.60	0.05	0.10	0.05	0.01	32.33	0.22	0.58	4.42	0.46	1.12	0.14	0.009	0.005	0.21	0.57	11.28	0.034	0.011	0.23	0.01	9.95	0.005	0.11	0.96	0.18	6.81	1.90	3.84	1.67	0.21	71.83	0.03	0.510	0.012	1.27	0.37	6.60	0.10
2032 May	Mean	3262.22	3756.95	0.24	0.25	5.57	1.13	1.25	0.81	0.18	969.97	1.86	17.91	27.71	10.03	15.29	4.17	0.256	0.165	6.27	17.80	340.67	0.252	0.066	6.97	0.47	78.11	0.148	1.95	26.00	1.38	211.54	9.43	43.57	50.80	6.25	805.71	0.98	15.161	0.198	20.96	7.42	147.61	3.03
2032 Jun	Mean	2233.66	2571.06	0.16	0.16	3.54	0.76	0.82	0.52	0.12	663.89	1.11	12.22	16.03	6.76	9.60	2.85	0.162	0.112	4.28	12.12	232.98	0.147	0.039	4.77	0.32	46.13	0.101	1.29	18.05	0.84	144.16	5.38	27.91	34.71	4.29	517.64	0.67	10.390	0.126	13.88	4.98	91.58	2.08
2032 Jul	Mean	142.23	163.18	0.02	0.01	0.44	0.05	0.08	0.04	0.01	42.17	0.15	0.76	2.77	0.49	0.86	0.18	0.008	0.007	0.27	0.75	14.72	0.022	0.007	0.30	0.02	6.43	0.006	0.11	1.25	0.12	8.91	1.18	2.99	2.18	0.28	56.17	0.04	0.665	0.010	1.17	0.38	5.32	0.13
2032 Aug	Mean	96.53	110.60	0.02	0.01	0.45	0.04	0.08	0.04	0.01	28.60	0.16	0.51	3.22	0.38	0.82	0.12	0.006	0.004	0.18	0.50	9.96	0.025	0.008	0.21	0.01	7.20	0.004	0.09	0.87	0.13	5.97	1.40	2.94	1.47	0.19	55.22	0.03	0.453	0.009	1.02	0.30	4.45	0.09
2032 Sep	Mean	108.21	124.01	0.02	0.01	0.53	0.04	0.09	0.05	0.01	32.06	0.19	0.57	3.79																														

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2034 Jan	Mean	101.42	116.19	0.03	0.01	0.68	0.05	0.11	0.06	0.01	30.04	0.28	0.54	5.41	0.47	1.23	0.13	0.008	0.005	0.19	0.52	10.46	0.040	0.013	0.22	0.01	12.19	0.005	0.12	0.92	0.20	6.26	2.24	5.09	1.55	0.20	84.02	0.03	0.476	0.013	1.40	0.38	6.71	0.10
2034 Feb	Mean	99.47	113.95	0.03	0.01	0.68	0.05	0.11	0.06	0.01	29.46	0.28	0.53	5.41	0.47	1.23	0.12	0.008	0.005	0.19	0.51	10.26	0.040	0.013	0.21	0.01	12.16	0.005	0.12	0.90	0.21	6.14	2.26	4.97	1.52	0.19	83.64	0.03	0.466	0.013	1.39	0.38	6.74	0.09
2034 Mar	Mean	96.50	110.54	0.02	0.01	0.64	0.04	0.10	0.05	0.01	28.58	0.26	0.51	5.08	0.45	1.16	0.12	0.008	0.004	0.18	0.50	9.96	0.038	0.013	0.21	0.01	11.41	0.004	0.11	0.88	0.19	5.96	2.13	4.66	1.47	0.19	78.98	0.03	0.453	0.012	1.32	0.36	6.37	0.09
2034 Apr	Mean	122.65	140.69	0.02	0.01	0.56	0.05	0.10	0.05	0.01	36.36	0.21	0.66	4.09	0.48	1.05	0.15	0.009	0.006	0.23	0.64	12.69	0.031	0.010	0.26	0.02	9.35	0.006	0.11	1.08	0.16	7.67	1.70	4.09	1.88	0.24	70.12	0.04	0.574	0.012	1.29	0.38	6.28	0.11
2034 May	Mean	3619.97	4170.42	0.25	0.28	5.62	1.26	1.32	0.85	0.20	1076.62	1.84	19.92	25.92	10.97	15.94	4.64	0.283	0.184	6.96	19.82	378.34	0.237	0.065	7.73	0.52	76.23	0.164	2.10	28.58	1.35	235.49	8.35	48.02	56.44	6.93	840.04	1.09	16.814	0.210	22.60	8.13	156.25	3.36
2034 Jun	Mean	2531.43	2913.45	0.17	0.17	3.76	0.86	0.90	0.55	0.14	752.33	1.13	13.83	15.74	7.57	10.12	3.22	0.175	0.126	4.85	13.72	263.97	0.143	0.042	5.41	0.36	46.26	0.115	1.42	20.52	0.86	163.20	5.20	31.82	39.32	4.86	562.58	0.76	11.778	0.134	15.43	5.60	94.33	2.36
2034 Jul	Mean	220.72	253.49	0.02	0.01	0.55	0.08	0.11	0.06	0.01	65.50	0.18	1.19	3.27	0.73	1.14	0.28	0.013	0.011	0.42	1.17	22.90	0.026	0.008	0.47	0.03	7.90	0.010	0.15	1.89	0.14	13.95	1.32	4.23	3.40	0.43	74.14	0.07	1.031	0.014	1.66	0.55	7.88	0.21
2034 Aug	Mean	98.14	112.44	0.02	0.01	0.40	0.04	0.07	0.04	0.01	29.07	0.15	0.52	2.81	0.37	0.73	0.12	0.006	0.004	0.18	0.51	10.13	0.021	0.007	0.21	0.01	6.38	0.004	0.08	0.89	0.11	6.07	1.19	2.92	1.50	0.19	50.65	0.03	0.460	0.008	0.96	0.29	3.90	0.09
2034 Sep	Mean	96.87	110.99	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.70	0.16	0.51	3.10	0.38	0.78	0.12	0.006	0.004	0.18	0.50	10.00	0.023	0.008	0.21	0.01	7.00	0.004	0.09	0.88	0.12	5.99	1.30	3.12	1.48	0.19	53.99	0.03	0.454	0.008	1.00	0.30	4.19	0.09
2034 Oct	Mean	96.77	110.88	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.67	0.16	0.51	3.10	0.38	0.78	0.12	0.006	0.004	0.18	0.50	9.99	0.023	0.008	0.21	0.01	7.01	0.004	0.09	0.88	0.12	5.98	1.31	3.13	1.48	0.19	54.02	0.03	0.454	0.008	1.00	0.30	4.18	0.09
2034 Nov	Mean	100.11	114.68	0.02	0.01	0.49	0.04	0.08	0.04	0.01	29.65	0.18	0.53	3.58	0.40	0.88	0.12	0.006	0.005	0.19	0.52	10.33	0.027	0.009	0.21	0.01	8.09	0.005	0.10	0.91	0.14	6.18	1.51	3.52	1.53	0.19	60.68	0.03	0.469	0.009	1.10	0.32	4.73	0.09
2034 Dec	Mean	102.53	117.45	0.02	0.01	0.60	0.04	0.10	0.05	0.01	30.37	0.23	0.54	4.56	0.45	1.07	0.13	0.008	0.005	0.19	0.53	10.58	0.034	0.011	0.22	0.01	10.26	0.005	0.11	0.93	0.18	6.33	1.92	4.28	1.56	0.20	73.35	0.03	0.481	0.011	1.27	0.36	5.83	0.10
2035 Jan	Mean	98.62	112.98	0.03	0.01	0.78	0.05	0.12	0.07	0.01	29.21	0.32	0.52	6.33	0.50	1.41	0.12	0.010	0.004	0.19	0.51	10.18	0.047	0.016	0.21	0.01	14.22	0.004	0.13	0.90	0.24	6.09	2.65	5.64	1.51	0.19	95.14	0.03	0.463	0.015	1.54	0.41	7.80	0.09
2035 Feb	Mean	92.84	106.36	0.03	0.01	0.92	0.05	0.14	0.08	0.01	27.50	0.39	0.49	7.66	0.53	1.66	0.11	0.011	0.004	0.17	0.48	9.58	0.057	0.019	0.20	0.01	17.18	0.004	0.15	0.84	0.29	5.73	3.19	6.65	1.42	0.18	111.03	0.03	0.435	0.017	1.72	0.44	9.26	0.09
2035 Mar	Mean	88.66	101.57	0.03	0.01	0.92	0.05	0.14	0.08	0.00	26.26	0.39	0.47	7.73	0.52	1.67	0.11	0.011	0.004	0.17	0.46	9.15	0.058	0.019	0.19	0.01	17.32	0.004	0.15	0.81	0.29	5.48	3.22	6.68	1.35	0.17	111.21	0.03	0.416	0.017	1.71	0.43	9.30	0.08
2035 Apr	Mean	327.60	376.20	0.05	0.03	1.32	0.13	0.23	0.13	0.02	97.20	0.52	1.76	9.65	1.25	2.67	0.41	0.027	0.016	0.62	1.73	33.99	0.074	0.024	0.70	0.04	22.62	0.015	0.29	2.81	0.38	20.69	3.90	10.00	5.05	0.63	169.57	0.10	1.530	0.030	3.23	0.97	18.22	0.31
2035 May	Mean	4596.94	5283.94	0.37	0.32	8.45	1.59	1.85	1.13	0.25	1364.93	2.79	24.90	43.65	14.22	20.79	5.81	0.325	0.224	8.77	24.58	477.96	0.370	0.111	9.81	0.64	117.25	0.209	2.74	38.49	2.08	292.94	15.69	68.77	71.06	8.85	1201.71	1.37	21.435	0.270	30.28	10.61	184.13	4.29
2035 Jun	Mean	2836.86	3259.71	0.21	0.18	4.81	0.97	1.08	0.64	0.16	842.12	1.49	15.33	22.67	8.62	11.70	3.58	0.184	0.137	5.40	15.11	294.73	0.194	0.059	6.05	0.39	61.82	0.129	1.63	23.96	1.13	180.21	8.13	39.26	43.80	5.47	692.06	0.85	13.235	0.154	18.02	6.41	101.64	2.65
2035 Jul	Mean	124.53	142.80	0.02	0.01	0.52	0.05	0.09	0.05	0.01	36.91	0.20	0.66	3.74	0.48	0.98	0.16	0.008	0.006	0.24	0.65	12.88	0.028	0.009	0.27	0.02	8.58	0.006	0.11	1.11	0.15	7.76	1.55	3.88	1.91	0.24	66.03	0.04	0.583	0.011	1.24	0.37	5.80	0.12
2035 Aug	Mean	93.11	106.68	0.02	0.01	0.58	0.04	0.09	0.05	0.01	27.58	0.23	0.49	4.57	0.42	1.06	0.12	0.007	0.004	0.18	0.48	9.61	0.034	0.011	0.20	0.01	10.29	0.004	0.11	0.84	0.18	5.76	1.91	4.28	1.42	0.18	72.05	0.03	0.437	0.011	1.22	0.34	5.81	0.09
2035 Sep	Mean	91.13	104.41	0.02	0.01	0.64	0.04	0.10	0.05	0.01	27.00	0.26	0.48	5.09	0.43	1.15	0.11	0.008	0.004	0.17	0.47	9.40	0.038	0.013	0.19	0.01	11.45	0.004	0.11	0.83	0.19	5.63	2.12	4.67	1.39	0.18	78.35	0.03	0.427	0.012	1.30	0.35	6.36	0.09
2035 Oct	Mean	106.63	122.20	0.03	0.01	0.69	0.05	0.11	0.06	0.01	31.59	0.28	0.57	5.44	0.49	1.26	0.13	0.009	0.005	0.20	0.55	11.01	0.041	0.013	0.23	0.01	12.28	0.005	0.12	0.96	0.21	6.61	2.27	5.06	1.63	0.21	85.07	0.03	0.500	0.013	1.43	0.39	7.05	0.10
2035 Nov	Mean	93.44	107.04	0.03	0.01	0.73	0.05	0.11	0.06	0.01	27.68	0.30	0.49	5.92	0.47	1.32	0.12	0.009	0.004	0.18	0.48	9.64	0.044	0.015	0.20	0.01	13.30	0.004	0.12	0.85	0.22	5.77	2.47	5.33	1.43	0.18	89.15	0.03	0.438	0.014	1.44	0.38	7.30	0.09
2035 Dec	Mean	93.96	107.63	0.03	0.01	0.90	0.05	0.14	0.08	0.01	27.83	0.38	0.50	7.50	0.53	1.63	0.12	0.011	0.004	0.18	0.48	9.69	0.056	0.018	0.20	0.01	16.82	0.004	0.15	0.85	0.28	5.80	3.12	6.55	1.43	0.18	109.13	0.03	0.441	0.017	1.70	0.44	9.08	0.09
2036 Jan	Mean	92.30	105.73	0.04	0.01	1.00	0.05	0.15	0.08	0.01	27.34	0.43	0.49	8.47	0.56	1.82	0.11	0.012	0.004	0.17	0.48	9.52	0.063	0.021	0.20	0.01	18.98	0.004	0.16	0.84	0.32	5.70	3.53	7.29	1.41	0.18	121.14	0.03	0.433	0.019	1.85	0.47	10.16	0.09
2036 Feb	Mean	90.10	103.22	0.04	0.01	1.01	0.05	0.15	0.08	0.01	26.69	0.43	0.48	8.57	0.56	1.83	0.11	0.012	0.004	0.17	0.46	9.30	0.064	0.021	0.19	0.01	19.22	0.004	0.16	0.82	0.32	5.56	3.57	7.36	1.38	0.17	122.14	0.03	0.423	0.019	1.86	0.46	10.27	0.08
2036 Mar	Mean	87.33	100.04	0.04	0.01	0.97	0.05	0.15	0.08	0.00	25.87																																	

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	221.97	254.27	0.03	0.01	0.67	0.08	0.12	0.07	0.01	65.75	0.24	1.17	4.37	0.76	1.32	0.27	0.014	0.010	0.42	1.14	22.90	0.034	0.011	0.47	0.03	10.36	0.010	0.16	2.02	0.18	13.71	1.77	5.06	3.39	0.43	87.10	0.07	1.041	0.016	1.83	0.58	8.96	0.21
2037 Aug	Mean	95.01	108.84	0.02	0.01	0.56	0.04	0.09	0.05	0.01	28.14	0.22	0.50	4.37	0.42	1.02	0.12	0.007	0.004	0.18	0.49	9.80	0.033	0.011	0.20	0.01	9.85	0.004	0.10	0.86	0.17	5.87	1.82	4.14	1.45	0.18	69.73	0.03	0.446	0.011	1.20	0.33	5.60	0.09
2037 Sep	Mean	100.86	115.53	0.02	0.01	0.63	0.04	0.10	0.05	0.01	29.87	0.25	0.53	4.92	0.45	1.14	0.12	0.008	0.005	0.19	0.52	10.40	0.037	0.012	0.22	0.01	11.10	0.005	0.11	0.92	0.19	6.23	2.05	4.61	1.54	0.20	77.65	0.03	0.473	0.012	1.32	0.36	6.31	0.09
2037 Oct	Mean	94.91	108.73	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.11	0.25	0.50	4.81	0.43	1.11	0.12	0.008	0.004	0.18	0.49	9.79	0.036	0.012	0.20	0.01	10.83	0.004	0.11	0.86	0.18	5.86	2.01	4.48	1.45	0.18	75.31	0.03	0.445	0.012	1.27	0.35	6.10	0.09
2037 Nov	Mean	94.88	108.69	0.03	0.01	0.67	0.04	0.11	0.06	0.01	28.10	0.27	0.50	5.38	0.45	1.22	0.12	0.008	0.004	0.18	0.49	9.79	0.040	0.013	0.20	0.01	12.11	0.004	0.12	0.86	0.20	5.86	2.25	4.92	1.45	0.18	82.61	0.03	0.445	0.013	1.36	0.37	6.71	0.09
2037 Dec	Mean	96.00	109.97	0.03	0.01	0.83	0.05	0.13	0.07	0.01	28.43	0.35	0.51	6.81	0.51	1.50	0.12	0.010	0.004	0.18	0.49	9.90	0.051	0.017	0.20	0.01	15.29	0.004	0.14	0.87	0.26	5.93	2.84	6.04	1.47	0.19	100.79	0.03	0.450	0.015	1.60	0.42	8.32	0.09
2038 Jan	Mean	94.57	108.33	0.03	0.01	0.93	0.05	0.14	0.08	0.01	28.01	0.39	0.50	7.80	0.54	1.69	0.12	0.011	0.004	0.18	0.49	9.76	0.058	0.019	0.20	0.01	17.48	0.004	0.15	0.86	0.29	5.84	3.25	6.79	1.44	0.18	113.00	0.03	0.443	0.017	1.75	0.45	9.41	0.09
2038 Feb	Mean	92.13	105.54	0.04	0.01	0.95	0.05	0.15	0.08	0.01	27.29	0.40	0.49	7.99	0.54	1.72	0.11	0.011	0.004	0.17	0.47	9.51	0.060	0.019	0.20	0.01	17.92	0.004	0.15	0.84	0.30	5.69	3.33	6.92	1.41	0.18	115.09	0.03	0.432	0.018	1.77	0.45	9.62	0.09
2038 Mar	Mean	89.13	102.11	0.03	0.01	0.92	0.05	0.14	0.08	0.00	26.40	0.39	0.47	7.71	0.52	1.66	0.11	0.011	0.004	0.17	0.46	9.20	0.057	0.019	0.19	0.01	17.28	0.004	0.15	0.81	0.29	5.50	3.21	6.68	1.36	0.17	111.03	0.03	0.418	0.017	1.71	0.43	9.28	0.08
2038 Apr	Mean	256.94	294.34	0.05	0.02	1.16	0.10	0.20	0.11	0.01	76.10	0.46	1.36	8.64	1.01	2.24	0.32	0.021	0.012	0.48	1.32	26.51	0.066	0.021	0.55	0.03	20.04	0.012	0.23	2.34	0.34	15.86	3.51	8.61	3.92	0.50	145.49	0.08	1.205	0.025	2.69	0.79	14.89	0.24
2038 May	Mean	4389.26	5028.08	0.34	0.28	7.73	1.47	1.71	1.05	0.24	1300.06	2.49	23.22	38.62	13.30	18.06	5.44	0.292	0.200	8.26	22.63	452.82	0.329	0.098	9.36	0.57	104.50	0.200	2.44	39.89	1.83	271.01	13.79	61.64	66.99	8.52	1079.45	1.30	20.584	0.250	27.92	9.92	165.42	4.12
2038 Jun	Mean	2689.13	3080.52	0.19	0.16	4.34	0.89	0.99	0.59	0.15	796.50	1.30	14.22	19.53	8.01	10.09	3.33	0.165	0.122	5.06	13.86	277.43	0.169	0.051	5.73	0.35	54.04	0.123	1.44	24.44	0.98	166.04	6.90	34.75	41.04	5.22	614.17	0.79	12.611	0.142	16.48	5.95	91.37	2.52
2038 Jul	Mean	179.81	205.98	0.02	0.01	0.62	0.07	0.11	0.06	0.01	53.26	0.23	0.95	4.24	0.64	1.20	0.22	0.012	0.008	0.34	0.93	18.55	0.033	0.011	0.38	0.02	9.94	0.008	0.14	1.63	0.17	11.10	1.72	4.65	2.74	0.35	79.46	0.05	0.843	0.014	1.59	0.50	7.97	0.17
2038 Aug	Mean	94.04	107.72	0.02	0.01	0.55	0.04	0.09	0.05	0.01	27.85	0.22	0.50	4.22	0.41	0.99	0.12	0.007	0.004	0.18	0.48	9.70	0.032	0.010	0.20	0.01	9.52	0.004	0.10	0.85	0.16	5.81	1.76	4.02	1.44	0.18	67.79	0.03	0.441	0.011	1.17	0.33	5.42	0.09
2038 Sep	Mean	96.90	111.01	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.70	0.24	0.51	4.76	0.44	1.10	0.12	0.008	0.004	0.18	0.50	10.00	0.036	0.012	0.21	0.01	10.72	0.004	0.11	0.88	0.18	5.98	1.99	4.45	1.48	0.19	74.96	0.03	0.454	0.012	1.27	0.35	6.06	0.09
2038 Oct	Mean	124.88	143.06	0.03	0.01	0.70	0.05	0.11	0.06	0.01	36.99	0.28	0.66	5.34	0.53	1.27	0.15	0.009	0.006	0.24	0.64	12.88	0.040	0.013	0.27	0.02	12.09	0.006	0.13	1.13	0.21	7.71	2.23	5.12	1.91	0.24	86.47	0.04	0.586	0.014	1.51	0.43	7.12	0.12
2038 Nov	Mean	95.12	108.97	0.03	0.01	0.67	0.04	0.11	0.06	0.01	28.17	0.27	0.50	5.36	0.45	1.21	0.12	0.008	0.004	0.18	0.49	9.81	0.040	0.013	0.20	0.01	12.05	0.004	0.12	0.86	0.20	5.87	2.24	4.91	1.45	0.18	82.31	0.03	0.446	0.013	1.36	0.37	6.68	0.09
2038 Dec	Mean	96.31	110.33	0.03	0.01	0.82	0.05	0.13	0.07	0.01	28.53	0.34	0.51	6.74	0.51	1.49	0.12	0.010	0.004	0.18	0.50	9.94	0.050	0.016	0.21	0.01	15.14	0.004	0.14	0.88	0.25	5.95	2.81	5.99	1.47	0.19	99.96	0.03	0.452	0.015	1.59	0.42	8.24	0.09
2039 Jan	Mean	94.76	108.56	0.03	0.01	0.92	0.05	0.14	0.08	0.01	28.07	0.39	0.50	7.70	0.54	1.67	0.12	0.011	0.004	0.18	0.49	9.78	0.057	0.019	0.20	0.01	17.26	0.004	0.15	0.86	0.29	5.85	3.21	6.72	1.45	0.18	111.79	0.03	0.444	0.017	1.74	0.44	9.30	0.09
2039 Feb	Mean	92.32	105.76	0.04	0.01	0.94	0.05	0.14	0.08	0.01	27.34	0.40	0.49	7.90	0.54	1.71	0.11	0.011	0.004	0.17	0.48	9.52	0.059	0.019	0.20	0.01	17.72	0.004	0.15	0.84	0.29	5.70	3.29	6.86	1.41	0.18	114.03	0.03	0.433	0.017	1.76	0.45	9.52	0.09
2039 Mar	Mean	89.27	102.26	0.03	0.01	0.91	0.05	0.14	0.08	0.00	26.44	0.39	0.47	7.61	0.52	1.64	0.11	0.011	0.004	0.17	0.46	9.21	0.057	0.019	0.19	0.01	17.06	0.004	0.15	0.81	0.28	5.51	3.17	6.60	1.36	0.17	109.83	0.03	0.419	0.017	1.70	0.43	9.17	0.08
2039 Apr	Mean	205.80	235.76	0.04	0.01	0.95	0.08	0.16	0.09	0.01	60.96	0.37	1.09	7.06	0.82	1.79	0.25	0.015	0.009	0.39	1.06	21.23	0.053	0.018	0.44	0.03	16.19	0.009	0.19	1.87	0.28	12.71	2.91	7.05	3.14	0.40	119.34	0.06	0.965	0.020	2.19	0.64	10.94	0.19
2039 May	Mean	4122.91	4722.97	0.34	0.26	7.73	1.39	1.67	1.00	0.23	1221.17	2.51	21.81	40.11	12.64	17.50	5.11	0.267	0.188	7.76	21.25	425.35	0.335	0.103	8.79	0.54	105.71	0.188	2.35	37.47	1.87	254.56	14.76	61.11	62.92	8.00	1068.80	1.22	19.335	0.237	26.92	9.46	152.82	3.87
2039 Jun	Mean	2674.52	3063.77	0.19	0.16	4.35	0.88	0.99	0.59	0.15	792.17	1.30	14.15	19.59	7.97	10.01	3.31	0.162	0.122	5.03	13.79	275.92	0.168	0.052	5.70	0.35	53.86	0.122	1.44	24.31	0.98	165.13	6.99	34.75	40.82	5.19	614.53	0.79	12.543	0.140	16.43	5.92	89.33	2.51
2039 Jul	Mean	179.41	205.52	0.03	0.01	0.65	0.07	0.12	0.06	0.01	53.14	0.24	0.95	4.47	0.65	1.23	0.22	0.012	0.008	0.34	0.92	18.51	0.034	0.011	0.38	0.02	10.40	0.008	0.14	1.63	0.18	11.08	1.83	4.84	2.74	0.35	82.73	0.05	0.841	0.014	1.63	0.50	7.81	0.17
2039 Aug	Mean	94.23	107.94	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.91	0.21	0.50	4.14	0.41	0.98	0.12	0.007	0.004	0.18	0.49	9.72	0.031	0.010	0.20	0.01	9.35	0.004	0.10	0.86	0.16	5.82	1.73	3.96	1.44	0.18	66.84	0.03	0.442	0.010	1.16	0.33	5.34	0.09
2039 Sep	Mean	92.68	106.17	0.02	0.01	0.58	0.04	0.09	0.05	0.01	27.45	0.																																

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2041 Jan	Mean	95.41	109.29	0.03	0.01	0.91	0.05	0.14	0.08	0.01	28.26	0.38	0.50	7.52	0.53	1.64	0.12	0.011	0.004	0.18	0.49	9.84	0.056	0.018	0.20	0.01	16.88	0.004	0.15	0.87	0.28	5.89	3.13	6.59	1.46	0.19	109.69	0.03	0.447	0.017	1.71	0.44	9.11	0.09
2041 Feb	Mean	92.94	106.47	0.03	0.01	0.92	0.05	0.14	0.08	0.01	27.53	0.39	0.49	7.72	0.53	1.67	0.12	0.011	0.004	0.17	0.48	9.59	0.058	0.019	0.20	0.01	17.32	0.004	0.15	0.84	0.29	5.74	3.22	6.72	1.42	0.18	111.83	0.03	0.436	0.017	1.73	0.44	9.32	0.09
2041 Mar	Mean	89.91	102.99	0.03	0.01	0.89	0.05	0.14	0.07	0.01	26.63	0.38	0.48	7.44	0.51	1.61	0.11	0.011	0.004	0.17	0.46	9.28	0.055	0.018	0.19	0.01	16.68	0.004	0.14	0.82	0.28	5.55	3.10	6.48	1.37	0.17	107.76	0.03	0.422	0.016	1.67	0.43	8.98	0.08
2041 Apr	Mean	247.31	283.30	0.04	0.02	1.14	0.10	0.19	0.11	0.01	73.25	0.45	1.31	8.59	0.98	2.22	0.31	0.021	0.011	0.47	1.27	25.51	0.066	0.021	0.53	0.03	19.92	0.011	0.23	2.25	0.33	15.27	3.49	8.50	3.77	0.48	143.37	0.07	1.160	0.025	2.63	0.77	14.78	0.23
2041 May	Mean	4341.17	4972.99	0.34	0.28	7.67	1.45	1.70	1.03	0.24	1285.82	2.45	22.96	38.12	13.15	17.74	5.38	0.283	0.197	8.17	22.38	447.86	0.324	0.098	9.26	0.57	102.69	0.198	2.41	39.45	1.81	268.04	13.71	61.02	66.25	8.43	1069.77	1.28	20.359	0.245	27.63	9.81	160.15	4.07
2041 Jun	Mean	2129.21	2439.11	0.15	0.12	3.44	0.70	0.79	0.46	0.12	630.66	1.02	11.26	15.35	6.34	7.89	2.64	0.127	0.097	4.01	10.98	219.66	0.132	0.041	4.54	0.28	42.19	0.097	1.14	19.35	0.77	131.47	5.50	27.51	32.49	4.13	487.08	0.63	9.985	0.110	13.05	4.71	69.86	2.00
2041 Jul	Mean	109.29	125.20	0.02	0.01	0.45	0.04	0.08	0.04	0.01	32.37	0.17	0.58	3.21	0.41	0.82	0.14	0.006	0.005	0.21	0.56	11.28	0.024	0.008	0.23	0.01	7.31	0.005	0.09	0.99	0.13	6.75	1.34	3.35	1.67	0.21	57.25	0.03	0.513	0.009	1.08	0.32	4.54	0.10
2041 Aug	Mean	100.94	115.63	0.02	0.01	0.54	0.04	0.09	0.05	0.01	29.90	0.21	0.53	4.08	0.42	0.97	0.13	0.007	0.005	0.19	0.52	10.41	0.030	0.010	0.22	0.01	9.22	0.005	0.10	0.92	0.16	6.23	1.70	3.96	1.54	0.20	66.97	0.03	0.473	0.010	1.18	0.34	5.36	0.09
2041 Sep	Mean	132.31	151.57	0.03	0.01	0.69	0.06	0.11	0.06	0.01	39.19	0.27	0.70	5.22	0.55	1.28	0.16	0.011	0.006	0.25	0.68	13.65	0.039	0.013	0.28	0.02	11.94	0.006	0.13	1.20	0.20	8.17	2.15	5.06	2.02	0.26	85.39	0.04	0.620	0.014	1.52	0.44	7.80	0.12
2041 Oct	Mean	120.38	137.90	0.03	0.01	0.67	0.05	0.11	0.06	0.01	35.66	0.26	0.64	5.09	0.51	1.21	0.15	0.009	0.005	0.23	0.62	12.42	0.038	0.013	0.26	0.02	11.50	0.005	0.13	1.09	0.20	7.43	2.12	4.89	1.84	0.23	82.68	0.04	0.565	0.013	1.44	0.41	6.70	0.11
2041 Nov	Mean	95.96	109.93	0.02	0.01	0.63	0.04	0.10	0.05	0.01	28.42	0.26	0.51	4.99	0.44	1.14	0.12	0.008	0.004	0.18	0.49	9.90	0.037	0.012	0.20	0.01	11.24	0.004	0.11	0.87	0.19	5.93	2.09	4.63	1.46	0.19	77.85	0.03	0.450	0.012	1.30	0.36	6.27	0.09
2041 Dec	Mean	97.42	111.60	0.03	0.01	0.78	0.05	0.12	0.07	0.01	28.86	0.32	0.52	6.36	0.50	1.41	0.12	0.010	0.004	0.18	0.50	10.05	0.047	0.016	0.21	0.01	14.29	0.004	0.13	0.89	0.24	6.02	2.65	5.70	1.49	0.19	95.32	0.03	0.457	0.015	1.53	0.41	7.82	0.09
2042 Jan	Mean	96.05	110.04	0.03	0.01	0.88	0.05	0.14	0.07	0.01	28.45	0.37	0.51	7.30	0.53	1.60	0.12	0.011	0.004	0.18	0.50	9.91	0.054	0.018	0.20	0.01	16.39	0.004	0.15	0.87	0.27	5.93	3.04	6.42	1.47	0.19	107.01	0.03	0.450	0.016	1.68	0.43	8.87	0.09
2042 Feb	Mean	93.60	107.22	0.03	0.01	0.90	0.05	0.14	0.08	0.01	27.72	0.38	0.50	7.52	0.53	1.63	0.12	0.011	0.004	0.18	0.48	9.66	0.056	0.018	0.20	0.01	16.86	0.004	0.15	0.85	0.28	5.78	3.13	6.57	1.43	0.18	109.32	0.03	0.439	0.017	1.70	0.44	9.09	0.09
2042 Mar	Mean	90.45	103.61	0.03	0.01	0.87	0.05	0.13	0.07	0.01	26.79	0.37	0.48	7.24	0.51	1.57	0.11	0.010	0.004	0.17	0.47	9.33	0.054	0.018	0.19	0.01	16.23	0.004	0.14	0.82	0.27	5.58	3.01	6.32	1.38	0.18	105.30	0.03	0.424	0.016	1.64	0.42	8.75	0.08
2042 Apr	Mean	204.96	234.79	0.04	0.02	0.93	0.08	0.16	0.09	0.01	60.71	0.37	1.08	6.95	0.81	1.80	0.25	0.017	0.009	0.39	1.06	21.14	0.053	0.017	0.44	0.03	16.11	0.009	0.19	1.86	0.27	12.65	2.83	6.92	3.13	0.40	116.92	0.06	0.961	0.020	2.16	0.64	11.85	0.19
2042 May	Mean	4172.76	4780.07	0.32	0.26	7.36	1.39	1.63	0.98	0.23	1235.94	2.33	22.07	36.25	12.63	16.87	5.17	0.266	0.190	7.85	21.51	430.49	0.307	0.093	8.90	0.55	97.35	0.190	2.32	37.92	1.73	257.64	13.13	58.48	63.68	8.10	1026.58	1.23	19.569	0.232	26.53	9.42	150.11	3.91
2042 Jun	Mean	2444.47	2800.24	0.17	0.15	3.87	0.80	0.89	0.54	0.14	724.03	1.16	12.93	17.14	7.26	9.05	3.03	0.150	0.111	4.60	12.60	252.19	0.149	0.045	5.21	0.32	47.78	0.112	1.30	22.22	0.87	150.93	6.02	31.11	37.31	4.75	550.39	0.72	11.464	0.128	14.88	5.39	82.56	2.29
2042 Jul	Mean	189.93	217.57	0.03	0.01	0.64	0.07	0.12	0.06	0.01	56.26	0.24	1.00	4.35	0.67	1.24	0.24	0.012	0.009	0.36	0.98	19.59	0.033	0.011	0.40	0.02	10.20	0.009	0.14	1.73	0.18	11.73	1.77	4.81	2.90	0.37	82.42	0.06	0.891	0.015	1.66	0.52	8.14	0.18
2042 Aug	Mean	94.81	108.61	0.02	0.01	0.52	0.04	0.09	0.05	0.01	28.08	0.20	0.50	3.97	0.40	0.94	0.12	0.007	0.004	0.18	0.49	9.78	0.030	0.010	0.20	0.01	8.97	0.004	0.10	0.86	0.15	5.85	1.66	3.83	1.45	0.18	64.78	0.03	0.445	0.010	1.13	0.32	5.14	0.09
2042 Sep	Mean	93.33	106.91	0.02	0.01	0.56	0.04	0.09	0.05	0.01	27.64	0.22	0.49	4.31	0.41	1.00	0.12	0.007	0.004	0.18	0.48	9.63	0.032	0.011	0.20	0.01	9.71	0.004	0.10	0.85	0.17	5.76	1.80	4.08	1.42	0.18	68.76	0.03	0.438	0.011	1.18	0.33	5.49	0.09
2042 Oct	Mean	111.47	127.70	0.02	0.01	0.62	0.05	0.10	0.05	0.01	33.02	0.24	0.59	4.74	0.48	1.12	0.14	0.008	0.005	0.21	0.57	11.50	0.035	0.012	0.24	0.01	10.70	0.005	0.12	1.01	0.18	6.88	1.98	4.55	1.70	0.22	76.92	0.03	0.523	0.012	1.34	0.38	6.19	0.10
2042 Nov	Mean	96.21	110.22	0.02	0.01	0.62	0.04	0.10	0.05	0.01	28.50	0.25	0.51	4.88	0.44	1.12	0.12	0.008	0.004	0.18	0.50	9.93	0.036	0.012	0.21	0.01	11.00	0.004	0.11	0.87	0.19	5.94	2.04	4.55	1.47	0.19	76.52	0.03	0.451	0.012	1.29	0.35	6.14	0.09
2042 Dec	Mean	97.75	111.98	0.03	0.01	0.77	0.05	0.12	0.07	0.01	28.95	0.32	0.52	6.22	0.49	1.39	0.12	0.009	0.004	0.18	0.50	10.08	0.046	0.015	0.21	0.01	13.98	0.004	0.13	0.89	0.24	6.04	2.60	5.60	1.49	0.19	93.65	0.03	0.458	0.014	1.51	0.40	7.66	0.09
2043 Jan	Mean	96.40	110.44	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.55	0.36	0.51	7.19	0.52	1.57	0.12	0.010	0.004	0.18	0.50	9.95	0.054	0.018	0.21	0.01	16.14	0.004	0.14	0.88	0.27	5.95	3.00	6.34	1.47	0.19	105.67	0.03	0.452	0.016	1.67	0.43	8.74	0.09
2043 Feb	Mean	93.92	107.59	0.03	0.01	0.89	0.05	0.14	0.08	0.01	27.82	0.38	0.50	7.43	0.52	1.62	0.12	0.011	0.004	0.18	0.48	9.69	0.055	0.018	0.20	0.01	16.67	0.004	0.15	0.85	0.28	5.80	3.10	6.50	1.43	0.18	108.29	0.03	0.440	0.017	1.69	0.43	8.99	0.09
2043 Mar	Mean	90.74	103.95	0.03	0.01	0.86	0.05	0.13	0.07	0.01	26.88	0.36</																																

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	168.68	193.23	0.02	0.01	0.56	0.06	0.10	0.06	0.01	49.96	0.20	0.89	3.79	0.60	1.08	0.21	0.011	0.008	0.32	0.87	17.40	0.029	0.010	0.36	0.02	8.85	0.008	0.13	1.53	0.15	10.41	1.55	4.22	2.57	0.33	72.47	0.05	0.791	0.013	1.47	0.46	6.91	0.16
2044 Aug	Mean	95.12	108.96	0.02	0.01	0.51	0.04	0.08	0.04	0.01	28.17	0.20	0.50	3.84	0.40	0.92	0.12	0.007	0.004	0.18	0.49	9.81	0.029	0.010	0.20	0.01	8.66	0.004	0.10	0.86	0.15	5.87	1.60	3.73	1.45	0.18	63.08	0.03	0.446	0.010	1.11	0.32	4.99	0.09
2044 Sep	Mean	93.63	107.26	0.02	0.01	0.55	0.04	0.09	0.05	0.01	27.73	0.22	0.50	4.22	0.41	0.99	0.12	0.007	0.004	0.18	0.48	9.66	0.031	0.010	0.20	0.01	9.51	0.004	0.10	0.85	0.16	5.78	1.76	4.01	1.43	0.18	67.71	0.03	0.439	0.010	1.17	0.33	5.40	0.09
2044 Oct	Mean	96.01	109.98	0.02	0.01	0.56	0.04	0.09	0.05	0.01	28.44	0.22	0.51	4.29	0.42	1.01	0.12	0.007	0.004	0.18	0.49	9.90	0.032	0.011	0.20	0.01	9.68	0.004	0.10	0.87	0.17	5.93	1.79	4.09	1.47	0.19	68.97	0.03	0.450	0.011	1.19	0.33	5.50	0.09
2044 Nov	Mean	96.59	110.65	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.61	0.25	0.51	4.81	0.44	1.11	0.12	0.008	0.004	0.18	0.50	9.97	0.036	0.012	0.21	0.01	10.82	0.004	0.11	0.88	0.18	5.96	2.01	4.49	1.47	0.19	75.59	0.03	0.453	0.012	1.28	0.35	6.06	0.09
2044 Dec	Mean	98.12	112.40	0.03	0.01	0.76	0.05	0.12	0.06	0.01	29.06	0.31	0.52	6.16	0.49	1.38	0.12	0.009	0.004	0.18	0.51	10.12	0.046	0.015	0.21	0.01	13.84	0.004	0.13	0.89	0.23	6.06	2.57	5.55	1.50	0.19	92.93	0.03	0.460	0.014	1.51	0.40	7.59	0.09
2045 Jan	Mean	96.72	110.80	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.65	0.36	0.51	7.09	0.52	1.55	0.12	0.010	0.004	0.18	0.50	9.98	0.053	0.017	0.21	0.01	15.91	0.004	0.14	0.88	0.27	5.97	2.96	6.26	1.48	0.19	104.45	0.03	0.454	0.016	1.65	0.43	8.63	0.09
2045 Feb	Mean	94.28	108.00	0.03	0.01	0.88	0.05	0.14	0.07	0.01	27.92	0.37	0.50	7.31	0.52	1.59	0.12	0.011	0.004	0.18	0.49	9.73	0.055	0.018	0.20	0.01	16.41	0.004	0.14	0.86	0.27	5.82	3.05	6.42	1.44	0.18	106.89	0.03	0.442	0.016	1.67	0.43	8.86	0.09
2045 Mar	Mean	91.08	104.34	0.03	0.01	0.85	0.05	0.13	0.07	0.01	26.98	0.36	0.48	7.06	0.50	1.54	0.11	0.010	0.004	0.17	0.47	9.40	0.053	0.017	0.19	0.01	15.84	0.004	0.14	0.83	0.26	5.62	2.94	6.19	1.39	0.18	103.19	0.03	0.427	0.016	1.62	0.42	8.56	0.09
2045 Apr	Mean	376.13	430.88	0.05	0.03	1.25	0.14	0.23	0.13	0.02	111.41	0.47	1.99	8.60	1.33	2.52	0.47	0.028	0.017	0.71	1.94	38.80	0.067	0.021	0.80	0.05	20.46	0.017	0.28	3.42	0.35	23.22	3.44	9.45	5.74	0.73	161.10	0.11	1.764	0.030	3.27	1.03	18.15	0.35
2045 May	Mean	4726.69	5414.63	0.36	0.30	8.22	1.57	1.83	1.11	0.26	1400.01	2.62	25.00	40.39	14.28	19.14	5.85	0.309	0.215	8.90	24.37	487.64	0.345	0.103	10.08	0.62	109.52	0.216	2.61	42.96	1.93	291.84	14.43	65.53	72.14	9.18	1149.44	1.40	22.167	0.265	29.90	10.65	174.47	4.43
2045 Jun	Mean	2237.80	2563.49	0.16	0.13	3.56	0.74	0.82	0.48	0.12	662.82	1.05	11.84	15.63	6.64	8.18	2.77	0.132	0.102	4.21	11.54	230.87	0.135	0.042	4.77	0.29	43.17	0.102	1.19	20.34	0.79	138.17	5.57	28.53	34.15	4.34	505.78	0.66	10.494	0.115	13.64	4.93	72.57	2.10
2045 Jul	Mean	123.16	141.09	0.02	0.01	0.47	0.05	0.08	0.04	0.01	36.48	0.17	0.65	3.23	0.45	0.86	0.15	0.007	0.006	0.23	0.63	12.71	0.024	0.008	0.26	0.02	7.40	0.006	0.10	1.12	0.13	7.60	1.34	3.47	1.88	0.24	59.36	0.04	0.578	0.010	1.15	0.35	4.91	0.12
2045 Aug	Mean	95.43	109.32	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.26	0.19	0.50	3.76	0.40	0.90	0.12	0.007	0.004	0.18	0.49	9.84	0.028	0.009	0.20	0.01	8.50	0.004	0.10	0.87	0.15	5.89	1.57	3.67	1.46	0.19	62.20	0.03	0.448	0.010	1.10	0.32	4.91	0.09
2045 Sep	Mean	104.17	119.33	0.02	0.01	0.57	0.04	0.09	0.05	0.01	30.85	0.22	0.55	4.33	0.44	1.03	0.13	0.008	0.005	0.20	0.54	10.75	0.032	0.011	0.22	0.01	9.79	0.005	0.11	0.95	0.17	6.43	1.81	4.18	1.59	0.20	70.60	0.03	0.489	0.011	1.24	0.35	5.71	0.10
2045 Oct	Mean	117.99	135.16	0.02	0.01	0.60	0.05	0.10	0.05	0.01	34.95	0.23	0.62	4.53	0.49	1.11	0.15	0.009	0.005	0.22	0.61	12.17	0.034	0.011	0.25	0.02	10.30	0.005	0.12	1.07	0.18	7.29	1.88	4.43	1.80	0.23	74.86	0.03	0.553	0.012	1.34	0.39	6.44	0.11
2045 Nov	Mean	96.79	110.88	0.02	0.01	0.62	0.04	0.10	0.05	0.01	28.67	0.25	0.51	4.82	0.44	1.11	0.12	0.008	0.004	0.18	0.50	9.99	0.036	0.012	0.21	0.01	10.85	0.004	0.11	0.88	0.18	5.98	2.01	4.50	1.48	0.19	75.78	0.03	0.454	0.012	1.28	0.35	6.08	0.09
2045 Dec	Mean	98.32	112.63	0.03	0.01	0.76	0.05	0.12	0.06	0.01	29.12	0.31	0.52	6.12	0.49	1.37	0.12	0.009	0.004	0.19	0.51	10.14	0.046	0.015	0.21	0.01	13.74	0.004	0.13	0.89	0.23	6.07	2.55	5.52	1.50	0.19	92.40	0.03	0.461	0.014	1.50	0.40	7.54	0.09
2046 Jan	Mean	97.04	111.16	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.74	0.36	0.51	7.01	0.52	1.54	0.12	0.010	0.004	0.18	0.50	10.01	0.052	0.017	0.21	0.01	15.74	0.004	0.14	0.88	0.26	5.99	2.92	6.20	1.48	0.19	103.51	0.03	0.455	0.016	1.64	0.43	8.54	0.09
2046 Feb	Mean	94.57	108.34	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.01	0.37	0.50	7.22	0.52	1.58	0.12	0.010	0.004	0.18	0.49	9.76	0.054	0.018	0.20	0.01	16.19	0.004	0.14	0.86	0.27	5.84	3.01	6.34	1.44	0.18	105.70	0.03	0.444	0.016	1.66	0.43	8.76	0.09
2046 Mar	Mean	91.37	104.67	0.03	0.01	0.84	0.05	0.13	0.07	0.01	27.06	0.35	0.48	6.95	0.50	1.52	0.11	0.010	0.004	0.17	0.47	9.43	0.052	0.017	0.19	0.01	15.60	0.004	0.14	0.83	0.26	5.64	2.90	6.11	1.39	0.18	101.85	0.03	0.428	0.016	1.60	0.41	8.44	0.09
2046 Apr	Mean	254.87	291.97	0.04	0.02	1.02	0.10	0.18	0.10	0.01	75.49	0.39	1.35	7.40	0.96	1.99	0.32	0.019	0.012	0.48	1.31	26.29	0.057	0.018	0.54	0.03	17.24	0.012	0.22	2.32	0.29	15.74	3.00	7.64	3.89	0.49	129.72	0.08	1.195	0.023	2.48	0.75	13.26	0.24
2046 May	Mean	4617.40	5289.43	0.35	0.29	8.00	1.54	1.78	1.07	0.26	1367.64	2.51	24.42	38.83	13.93	18.44	5.72	0.294	0.210	8.69	23.80	476.36	0.330	0.100	9.85	0.60	104.99	0.211	2.55	41.96	1.87	285.09	13.97	63.68	70.47	8.96	1118.89	1.36	21.654	0.255	29.14	10.39	165.56	4.33
2046 Jun	Mean	2538.38	2907.82	0.18	0.15	3.99	0.83	0.92	0.54	0.14	751.85	1.16	13.43	17.17	7.52	9.15	3.14	0.149	0.115	4.78	13.09	261.88	0.148	0.046	5.41	0.33	47.65	0.116	1.35	23.07	0.88	156.73	6.11	31.96	38.74	4.93	567.35	0.75	11.904	0.129	15.39	5.58	81.08	2.38
2046 Jul	Mean	166.90	191.19	0.02	0.01	0.55	0.06	0.10	0.05	0.01	49.43	0.20	0.88	3.68	0.59	1.05	0.21	0.010	0.008	0.31	0.86	17.22	0.028	0.009	0.36	0.02	8.57	0.008	0.13	1.52	0.15	10.30	1.51	4.13	2.55	0.32	70.97	0.05	0.783	0.012	1.44	0.45	6.58	0.16
2046 Aug	Mean	97.30	111.46	0.02	0.01	0.51	0.04	0.08	0.04	0.01	28.82	0.20	0.51	3.81	0.40	0.91	0.12	0.007	0.004	0.18	0.50	10.04	0.028	0.010	0.21	0.01	8.60	0.004	0.10	0.88	0.15	6.01	1.59	3.72	1.48	0.19	63.04	0.03	0.456	0.010	1.12	0.32	4.99	0.09
2046 Sep	Mean	123.58	141.57	0.02	0.01	0.60	0.05	0.10	0.05	0.01	36.60	0.2																																

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2048 Jan	Mean	97.49	111.68	0.03	0.01	0.83	0.05	0.13	0.07	0.01	28.88	0.35	0.52	6.85	0.51	1.51	0.12	0.010	0.004	0.18	0.50	10.06	0.051	0.017	0.21	0.01	15.38	0.004	0.14	0.89	0.26	6.02	2.86	6.08	1.49	0.19	101.55	0.03	0.457	0.016	1.62	0.42	8.36	0.09
2048 Feb	Mean	94.95	108.77	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.12	0.36	0.50	7.10	0.52	1.55	0.12	0.010	0.004	0.18	0.49	9.80	0.053	0.017	0.20	0.01	15.94	0.004	0.14	0.86	0.27	5.86	2.96	6.26	1.45	0.18	104.34	0.03	0.445	0.016	1.64	0.43	8.63	0.09
2048 Mar	Mean	91.65	104.99	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.15	0.35	0.48	6.87	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.46	0.051	0.017	0.20	0.01	15.41	0.004	0.14	0.83	0.26	5.66	2.86	6.05	1.40	0.18	100.85	0.03	0.430	0.015	1.59	0.41	8.34	0.09
2048 Apr	Mean	246.06	281.87	0.04	0.02	1.01	0.10	0.18	0.10	0.01	72.88	0.39	1.30	7.36	0.93	1.97	0.30	0.020	0.011	0.46	1.27	25.39	0.056	0.018	0.52	0.03	17.17	0.011	0.21	2.24	0.29	15.19	2.98	7.54	3.76	0.48	127.65	0.07	1.154	0.023	2.43	0.73	13.37	0.23
2048 May	Mean	4580.49	5247.14	0.35	0.28	7.84	1.52	1.76	1.05	0.25	1356.70	2.44	24.23	37.53	13.79	18.05	5.67	0.289	0.208	8.62	23.61	472.55	0.320	0.097	9.77	0.60	101.73	0.209	2.51	41.63	1.82	282.81	13.49	62.46	69.90	8.89	1098.83	1.35	21.481	0.250	28.76	10.27	161.67	4.30
2048 Jun	Mean	2590.07	2967.04	0.18	0.15	4.03	0.85	0.94	0.56	0.14	767.16	1.18	13.70	17.34	7.66	9.37	3.21	0.155	0.118	4.88	13.35	267.21	0.151	0.046	5.52	0.34	48.53	0.118	1.37	23.54	0.89	159.92	6.09	32.39	39.53	5.03	574.52	0.77	12.147	0.132	15.65	5.68	84.72	2.43
2048 Jul	Mean	109.84	125.83	0.02	0.01	0.42	0.04	0.07	0.04	0.01	32.53	0.15	0.58	2.94	0.41	0.77	0.14	0.006	0.005	0.21	0.57	11.33	0.022	0.007	0.23	0.01	6.73	0.005	0.09	1.00	0.12	6.78	1.23	3.15	1.68	0.21	53.87	0.03	0.515	0.009	1.04	0.32	4.34	0.10
2048 Aug	Mean	104.63	119.85	0.02	0.01	0.52	0.04	0.09	0.05	0.01	30.99	0.20	0.55	3.89	0.43	0.94	0.13	0.007	0.005	0.20	0.54	10.79	0.029	0.010	0.22	0.01	8.80	0.005	0.10	0.95	0.15	6.46	1.63	3.84	1.60	0.20	65.17	0.03	0.491	0.010	1.17	0.34	5.18	0.10
2048 Sep	Mean	127.96	146.59	0.02	0.01	0.61	0.05	0.10	0.06	0.01	37.90	0.24	0.68	4.58	0.51	1.14	0.16	0.010	0.006	0.24	0.66	13.20	0.035	0.011	0.27	0.02	10.47	0.006	0.12	1.16	0.18	7.90	1.89	4.53	1.95	0.25	76.76	0.04	0.600	0.013	1.39	0.41	6.86	0.12
2048 Oct	Mean	115.39	132.19	0.02	0.01	0.60	0.05	0.10	0.05	0.01	34.18	0.23	0.61	4.48	0.48	1.08	0.14	0.008	0.005	0.22	0.59	11.90	0.033	0.011	0.25	0.02	10.13	0.005	0.11	1.05	0.17	7.12	1.87	4.38	1.76	0.22	74.25	0.03	0.541	0.012	1.32	0.38	5.94	0.11
2048 Nov	Mean	128.24	146.91	0.03	0.01	0.68	0.05	0.11	0.06	0.01	37.98	0.27	0.68	5.17	0.54	1.25	0.16	0.010	0.006	0.24	0.66	13.23	0.039	0.013	0.27	0.02	11.74	0.006	0.13	1.17	0.20	7.92	2.15	5.01	1.96	0.25	84.61	0.04	0.601	0.014	1.49	0.43	7.16	0.12
2048 Dec	Mean	98.69	113.05	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.23	0.31	0.52	6.01	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.18	0.045	0.015	0.21	0.01	13.51	0.005	0.13	0.90	0.23	6.09	2.51	5.44	1.51	0.19	91.12	0.03	0.463	0.014	1.48	0.40	7.43	0.09
2049 Jan	Mean	97.35	111.51	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.83	0.35	0.51	6.91	0.52	1.52	0.12	0.010	0.004	0.18	0.50	10.04	0.052	0.017	0.21	0.01	15.52	0.004	0.14	0.88	0.26	6.01	2.88	6.13	1.49	0.19	102.29	0.03	0.457	0.016	1.62	0.42	8.43	0.09
2049 Feb	Mean	94.90	108.71	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.11	0.36	0.50	7.12	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.79	0.053	0.017	0.20	0.01	15.98	0.004	0.14	0.86	0.27	5.86	2.97	6.27	1.45	0.18	104.57	0.03	0.445	0.016	1.65	0.43	8.65	0.09
2049 Mar	Mean	91.64	104.98	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.14	0.35	0.48	6.87	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.45	0.051	0.017	0.20	0.01	15.41	0.004	0.14	0.83	0.26	5.66	2.86	6.05	1.40	0.18	100.84	0.03	0.430	0.015	1.59	0.41	8.34	0.09
2049 Apr	Mean	287.19	328.99	0.04	0.02	1.09	0.11	0.19	0.11	0.02	85.06	0.42	1.52	7.79	1.06	2.15	0.36	0.022	0.013	0.54	1.48	29.63	0.060	0.019	0.61	0.04	18.27	0.013	0.23	2.61	0.31	17.73	3.15	8.18	4.38	0.56	138.90	0.08	1.347	0.025	2.70	0.83	14.73	0.27
2049 May	Mean	4492.17	5145.97	0.33	0.28	7.47	1.49	1.69	1.03	0.25	1330.55	2.34	23.76	35.27	13.46	17.61	5.56	0.291	0.204	8.46	23.16	463.44	0.305	0.091	9.58	0.59	97.27	0.205	2.44	40.83	1.72	277.36	12.40	59.84	68.56	8.72	1052.44	1.33	21.067	0.246	27.90	10.01	163.10	4.21
2049 Jun	Mean	2757.73	3159.09	0.20	0.16	4.37	0.91	1.01	0.60	0.15	816.82	1.30	14.59	19.22	8.18	10.16	3.42	0.168	0.125	5.19	14.22	284.51	0.167	0.051	5.88	0.36	53.51	0.126	1.47	25.06	0.98	170.27	6.77	35.04	42.09	5.35	620.33	0.82	12.933	0.143	16.78	6.07	92.06	2.59
2049 Jul	Mean	98.28	112.58	0.02	0.01	0.40	0.04	0.07	0.04	0.01	29.11	0.15	0.52	2.78	0.37	0.72	0.12	0.006	0.004	0.19	0.51	10.14	0.021	0.007	0.21	0.01	6.32	0.004	0.08	0.89	0.11	6.07	1.17	2.93	1.50	0.19	50.18	0.03	0.461	0.008	0.96	0.29	3.89	0.09
2049 Aug	Mean	95.50	109.40	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.29	0.19	0.51	3.73	0.40	0.90	0.12	0.006	0.004	0.18	0.49	9.85	0.028	0.009	0.20	0.01	8.43	0.004	0.10	0.87	0.15	5.90	1.56	3.65	1.46	0.19	61.85	0.03	0.448	0.010	1.10	0.31	4.87	0.09
2049 Sep	Mean	94.04	107.72	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.85	0.21	0.50	4.04	0.40	0.95	0.12	0.007	0.004	0.18	0.48	9.70	0.030	0.010	0.20	0.01	9.12	0.004	0.10	0.85	0.16	5.81	1.69	3.88	1.44	0.18	65.53	0.03	0.441	0.010	1.14	0.32	5.21	0.09
2049 Oct	Mean	131.86	151.05	0.02	0.01	0.61	0.05	0.10	0.06	0.01	39.05	0.23	0.70	4.48	0.52	1.12	0.16	0.009	0.006	0.25	0.68	13.60	0.034	0.011	0.28	0.02	10.23	0.006	0.12	1.20	0.18	8.14	1.86	4.50	2.01	0.26	76.42	0.04	0.618	0.012	1.40	0.41	6.51	0.12
2049 Nov	Mean	98.42	112.75	0.02	0.01	0.59	0.04	0.10	0.05	0.01	29.15	0.24	0.52	4.61	0.44	1.07	0.12	0.008	0.004	0.19	0.51	10.15	0.034	0.011	0.21	0.01	10.38	0.004	0.11	0.89	0.18	6.08	1.93	4.35	1.50	0.19	73.36	0.03	0.462	0.011	1.25	0.35	5.86	0.09
2049 Dec	Mean	98.78	113.15	0.03	0.01	0.74	0.05	0.12	0.06	0.01	29.26	0.30	0.52	5.93	0.48	1.33	0.12	0.009	0.004	0.19	0.51	10.19	0.044	0.015	0.21	0.01	13.33	0.005	0.13	0.90	0.22	6.10	2.48	5.38	1.51	0.19	90.14	0.03	0.463	0.014	1.47	0.39	7.33	0.09
2050 Jan	Mean	97.51	111.70	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.88	0.35	0.52	6.88	0.51	1.52	0.12	0.010	0.004	0.18	0.50	10.06	0.051	0.017	0.21	0.01	15.46	0.004	0.14	0.89	0.26	6.02	2.87	6.11	1.49	0.19	101.97	0.03	0.457	0.016	1.62	0.42	8.40	0.09
2050 Feb	Mean	94.97	108.80	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.13	0.36	0.50	7.12	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.80	0.053	0.017	0.20	0.01	15.98	0.004	0.14	0.86	0.27	5.86	2.97	6.27	1.45	0.18	104.57	0.03	0.445	0.016	1.65	0.43	8.65	0.09
2050 Mar	Mean	91.62	104.96	0.03	0.01	0.83	0.05	0.13	0.07	0.01</																																		

Table A-5
Monthly WQ Report for Scenario A.2.a - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)
2051 Jul	Mean	119.79	137.22	0.02	0.01	0.45	0.05	0.08	0.04	0.01	35.48	0.16	0.63	3.14	0.44	0.83	0.15	0.007	0.005	0.23	0.62	12.36	0.024	0.008	0.26	0.02	7.17	0.005	0.10	1.09	0.13	7.40	1.31	3.37	1.83	0.23	57.81	0.04	0.562	0.009	1.12	0.34	4.63	0.11
2051 Aug	Mean	98.04	112.31	0.02	0.01	0.50	0.04	0.08	0.04	0.01	29.04	0.19	0.52	3.78	0.40	0.91	0.12	0.007	0.004	0.18	0.51	10.11	0.028	0.009	0.21	0.01	8.54	0.004	0.10	0.89	0.15	6.05	1.58	3.71	1.50	0.19	62.79	0.03	0.460	0.010	1.12	0.32	4.96	0.09
2051 Sep	Mean	140.71	161.19	0.02	0.01	0.63	0.06	0.11	0.06	0.01	41.68	0.25	0.74	4.68	0.55	1.19	0.17	0.010	0.006	0.26	0.73	14.52	0.035	0.012	0.30	0.02	10.75	0.006	0.13	1.28	0.18	8.69	1.93	4.71	2.15	0.27	79.81	0.04	0.660	0.013	1.47	0.43	7.30	0.13
2051 Oct	Mean	102.96	117.94	0.02	0.01	0.56	0.04	0.09	0.05	0.01	30.50	0.22	0.54	4.27	0.44	1.01	0.13	0.007	0.005	0.19	0.53	10.62	0.032	0.011	0.22	0.01	9.63	0.005	0.11	0.94	0.17	6.36	1.79	4.12	1.57	0.20	69.76	0.03	0.483	0.011	1.22	0.35	5.52	0.10
2051 Nov	Mean	96.99	111.11	0.02	0.01	0.60	0.04	0.10	0.05	0.01	28.73	0.24	0.51	4.72	0.44	1.09	0.12	0.008	0.004	0.18	0.50	10.01	0.035	0.012	0.21	0.01	10.63	0.004	0.11	0.88	0.18	5.99	1.97	4.43	1.48	0.19	74.59	0.03	0.455	0.012	1.27	0.35	5.97	0.09
2051 Dec	Mean	98.53	112.87	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.18	0.31	0.52	6.04	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.16	0.045	0.015	0.21	0.01	13.58	0.004	0.13	0.90	0.23	6.08	2.52	5.46	1.50	0.19	91.49	0.03	0.462	0.014	1.49	0.40	7.46	0.09
2052 Jan	Mean	97.28	111.44	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.81	0.35	0.51	6.94	0.52	1.53	0.12	0.010	0.004	0.18	0.50	10.04	0.052	0.017	0.21	0.01	15.59	0.004	0.14	0.88	0.26	6.01	2.89	6.15	1.48	0.19	102.67	0.03	0.456	0.016	1.63	0.42	8.46	0.09
2052 Feb	Mean	94.79	108.58	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.08	0.36	0.50	7.16	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.78	0.053	0.017	0.20	0.01	16.06	0.004	0.14	0.86	0.27	5.85	2.98	6.30	1.45	0.18	104.98	0.03	0.445	0.016	1.65	0.43	8.69	0.09
2052 Mar	Mean	91.59	104.92	0.03	0.01	0.84	0.05	0.13	0.07	0.01	27.13	0.35	0.48	6.92	0.50	1.51	0.11	0.010	0.004	0.17	0.47	9.45	0.052	0.017	0.20	0.01	15.53	0.004	0.14	0.83	0.26	5.66	2.88	6.09	1.40	0.18	101.52	0.03	0.430	0.016	1.60	0.41	8.40	0.09
2052 Apr	Mean	190.04	217.70	0.04	0.02	0.95	0.08	0.16	0.09	0.01	56.29	0.38	1.01	7.26	0.78	1.83	0.24	0.017	0.009	0.36	0.98	19.61	0.055	0.018	0.41	0.02	16.79	0.009	0.18	1.73	0.28	11.73	2.95	7.04	2.90	0.37	118.47	0.06	0.891	0.021	2.13	0.62	12.14	0.18
2052 May	Mean	4292.52	4917.27	0.32	0.27	7.27	1.43	1.64	1.00	0.24	1271.41	2.30	22.71	35.05	12.91	17.13	5.32	0.282	0.195	8.08	22.13	442.84	0.302	0.090	9.15	0.56	96.14	0.196	2.34	39.01	1.70	265.04	12.36	58.18	65.51	8.33	1021.30	1.27	20.130	0.239	26.86	9.61	158.75	4.03
2052 Jun	Mean	1947.80	2231.29	0.14	0.11	3.06	0.64	0.71	0.42	0.11	576.92	0.89	10.30	13.23	5.77	7.05	2.41	0.115	0.089	3.67	10.04	200.95	0.114	0.035	4.15	0.26	36.75	0.089	1.03	17.70	0.68	120.26	4.70	24.55	29.73	3.78	435.64	0.58	9.134	0.099	11.81	4.28	62.70	1.83
2052 Jul	Mean	141.95	162.61	0.02	0.01	0.49	0.05	0.09	0.05	0.01	42.04	0.18	0.75	3.29	0.51	0.92	0.18	0.009	0.006	0.27	0.73	14.64	0.025	0.008	0.30	0.02	7.66	0.006	0.11	1.29	0.13	8.76	1.35	3.64	2.17	0.28	62.50	0.04	0.666	0.011	1.25	0.39	5.75	0.13
2052 Aug	Mean	95.33	109.21	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.24	0.19	0.50	3.77	0.40	0.90	0.12	0.007	0.004	0.18	0.49	9.84	0.028	0.009	0.20	0.01	8.52	0.004	0.10	0.87	0.15	5.89	1.58	3.68	1.45	0.19	62.27	0.03	0.447	0.010	1.10	0.32	4.92	0.09
2052 Sep	Mean	139.47	159.77	0.03	0.01	0.74	0.06	0.12	0.07	0.01	41.31	0.29	0.74	5.64	0.58	1.36	0.17	0.011	0.006	0.26	0.72	14.39	0.042	0.014	0.30	0.02	12.82	0.006	0.14	1.27	0.22	8.61	2.34	5.46	2.13	0.27	92.17	0.04	0.654	0.015	1.63	0.46	7.91	0.13
2052 Oct	Mean	94.08	107.77	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.86	0.21	0.50	4.05	0.40	0.96	0.12	0.007	0.004	0.18	0.48	9.71	0.030	0.010	0.20	0.01	9.13	0.004	0.10	0.86	0.16	5.81	1.69	3.88	1.44	0.18	65.62	0.03	0.441	0.010	1.14	0.32	5.21	0.09
2052 Nov	Mean	131.59	150.74	0.03	0.01	0.74	0.06	0.12	0.07	0.01	38.98	0.30	0.70	5.72	0.56	1.39	0.16	0.011	0.006	0.25	0.68	13.58	0.043	0.014	0.28	0.02	13.09	0.006	0.14	1.20	0.22	8.12	2.36	5.44	2.01	0.26	91.45	0.04	0.617	0.015	1.60	0.45	8.55	0.12
2052 Dec	Mean	98.52	112.86	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.18	0.31	0.52	6.05	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.16	0.045	0.015	0.21	0.01	13.60	0.004	0.13	0.90	0.23	6.08	2.53	5.47	1.50	0.19	91.62	0.03	0.462	0.014	1.49	0.40	7.47	0.09
2053 Jan	Mean	97.23	111.38	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.80	0.35	0.51	6.96	0.52	1.53	0.12	0.010	0.004	0.18	0.50	10.03	0.052	0.017	0.21	0.01	15.61	0.004	0.14	0.88	0.26	6.00	2.90	6.16	1.48	0.19	102.83	0.03	0.456	0.016	1.63	0.43	8.48	0.09
2053 Feb	Mean	94.72	108.50	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.05	0.36	0.50	7.17	0.52	1.57	0.12	0.010	0.004	0.18	0.49	9.77	0.053	0.017	0.20	0.01	16.08	0.004	0.14	0.86	0.27	5.85	2.99	6.30	1.45	0.18	105.07	0.03	0.444	0.016	1.65	0.43	8.70	0.09
2053 Mar	Mean	91.49	104.80	0.03	0.01	0.84	0.05	0.13	0.07	0.01	27.10	0.35	0.48	6.92	0.50	1.51	0.11	0.010	0.004	0.17	0.47	9.44	0.052	0.017	0.20	0.01	15.53	0.004	0.14	0.83	0.26	5.65	2.88	6.09	1.40	0.18	101.50	0.03	0.429	0.016	1.60	0.41	8.40	0.09
2053 Apr	Mean	286.46	328.16	0.04	0.02	1.04	0.11	0.19	0.11	0.02	84.85	0.40	1.52	7.37	1.04	2.08	0.35	0.022	0.013	0.54	1.48	29.55	0.057	0.018	0.61	0.04	17.43	0.013	0.23	2.60	0.29	17.69	2.96	7.83	4.37	0.56	132.97	0.08	1.343	0.025	2.63	0.81	14.87	0.27
2053 May	Mean	5075.27	5813.93	0.37	0.32	8.37	1.68	1.90	1.17	0.28	1503.25	2.62	26.85	39.34	15.18	19.85	6.29	0.332	0.231	9.55	26.16	523.60	0.341	0.101	10.82	0.66	109.03	0.232	2.74	46.13	1.93	313.36	13.73	67.15	77.46	9.85	1180.74	1.50	23.801	0.279	31.42	11.29	185.62	4.76
2053 Jun	Mean	1682.09	1926.90	0.12	0.10	2.65	0.55	0.61	0.36	0.09	498.22	0.77	8.90	11.44	4.98	6.07	2.08	0.098	0.076	3.17	8.67	173.54	0.099	0.031	3.59	0.22	31.69	0.077	0.89	15.29	0.59	103.86	4.08	21.23	25.67	3.27	376.94	0.50	7.888	0.085	10.21	3.70	53.59	1.58
2053 Jul	Mean	97.68	111.89	0.02	0.01	0.41	0.04	0.07	0.04	0.01	28.93	0.15	0.52	2.94	0.37	0.75	0.12	0.006	0.004	0.18	0.50	10.08	0.022	0.007	0.21	0.01	6.67	0.004	0.09	0.89	0.12	6.03	1.23	3.05	1.49	0.19	52.09	0.03	0.458	0.008	0.98	0.29	4.04	0.09
2053 Aug	Mean	104.32	119.50	0.02	0.01	0.54	0.04	0.09	0.05	0.01	30.90	0.21	0.55	4.03	0.43	0.97	0.13	0.007	0.005	0.20	0.54	10.76	0.030	0.010	0.22	0.01	9.11	0.005	0.10	0.95	0.16	6.44	1.68	3.95	1.59	0.20	66.88	0.03	0.489	0.010	1.19	0.34	5.33	0.10
2053 Sep	Mean	133.97	153.47	0.02	0.01	0.65	0.05	0.11	0.06	0.01	39.68	0																																

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2020 Jan	Mean	112.55	128.93	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.34	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.03	0.91	1.72	0.22	17.63	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.48	132.30	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.21	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.60	11.92	0.000	0.001	0.25	0.02	0.19	0.005	0.05	1.05	0.01	7.14	0.03	0.99	1.76	0.22	18.33	0.03	0.541	0.003	0.60	0.23	0.74	0.11
2020 Mar	Mean	107.30	122.94	0.01	0.00	0.11	0.04	0.03	0.01	0.01	31.79	0.01	0.57	0.04	0.30	0.19	0.13	0.002	0.005	0.20	0.55	11.08	0.000	0.001	0.23	0.01	0.23	0.005	0.05	0.97	0.01	6.64	0.03	0.97	1.64	0.21	17.28	0.03	0.503	0.003	0.56	0.22	0.72	0.10
2020 Apr	Mean	100.72	115.41	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.84	0.01	0.53	0.04	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.40	0.000	0.001	0.21	0.01	0.23	0.005	0.05	0.91	0.01	6.24	0.03	0.91	1.54	0.20	16.22	0.03	0.472	0.003	0.52	0.20	0.75	0.09
2020 May	Mean	104.25	119.47	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.89	0.01	0.55	0.05	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.76	0.000	0.001	0.22	0.01	0.27	0.005	0.05	0.94	0.01	6.46	0.03	0.96	1.59	0.20	16.90	0.03	0.489	0.003	0.54	0.21	0.80	0.10
2020 Jun	Mean	105.75	121.19	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.33	0.01	0.56	0.07	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.92	0.000	0.001	0.23	0.01	0.32	0.005	0.05	0.95	0.01	6.56	0.03	1.06	1.62	0.21	17.52	0.03	0.496	0.003	0.56	0.21	0.76	0.10
2020 Jul	Mean	106.28	121.82	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.49	0.01	0.56	0.09	0.29	0.20	0.13	0.002	0.005	0.20	0.55	10.98	0.000	0.001	0.23	0.01	0.39	0.005	0.05	0.95	0.01	6.60	0.04	1.15	1.63	0.21	18.02	0.03	0.498	0.003	0.56	0.21	0.77	0.10
2020 Aug	Mean	106.54	122.15	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.57	0.01	0.57	0.10	0.30	0.20	0.13	0.002	0.005	0.20	0.55	11.01	0.000	0.001	0.23	0.01	0.42	0.005	0.05	0.95	0.01	6.63	0.04	1.19	1.63	0.21	18.28	0.03	0.499	0.003	0.57	0.22	0.77	0.10
2020 Sep	Mean	106.36	121.96	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.53	0.01	0.57	0.11	0.30	0.20	0.13	0.002	0.005	0.20	0.55	11.00	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.94	0.02	6.63	0.04	1.21	1.63	0.21	18.39	0.03	0.498	0.003	0.57	0.22	0.77	0.10
2020 Oct	Mean	106.33	121.95	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.52	0.01	0.57	0.13	0.30	0.20	0.13	0.002	0.005	0.20	0.56	11.00	0.001	0.001	0.23	0.01	0.49	0.005	0.05	0.94	0.02	6.64	0.05	1.27	1.63	0.21	18.67	0.03	0.498	0.003	0.57	0.22	0.78	0.10
2020 Nov	Mean	108.69	124.66	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.22	0.01	0.58	0.18	0.30	0.21	0.14	0.003	0.005	0.21	0.57	11.24	0.001	0.001	0.23	0.01	0.66	0.005	0.05	0.96	0.02	6.79	0.06	1.49	1.67	0.21	19.92	0.03	0.509	0.003	0.60	0.22	0.84	0.10
2020 Dec	Mean	113.88	130.64	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.76	0.02	0.61	0.31	0.32	0.24	0.14	0.003	0.005	0.22	0.60	11.79	0.001	0.001	0.24	0.02	1.06	0.005	0.05	1.00	0.02	7.13	0.08	1.99	1.75	0.22	22.86	0.03	0.533	0.003	0.65	0.23	0.94	0.11
2021 Jan	Mean	117.01	134.40	0.01	0.00	0.15	0.04	0.04	0.02	0.01	34.72	0.03	0.63	0.55	0.33	0.27	0.15	0.003	0.006	0.22	0.62	12.15	0.002	0.002	0.25	0.02	1.78	0.005	0.06	1.00	0.02	7.41	0.13	2.86	1.80	0.23	27.33	0.03	0.546	0.004	0.71	0.25	1.12	0.11
2021 Feb	Mean	113.88	130.94	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.82	0.03	0.62	0.76	0.33	0.30	0.14	0.003	0.006	0.22	0.61	11.85	0.003	0.003	0.24	0.02	2.41	0.005	0.06	0.95	0.03	7.28	0.17	3.58	1.76	0.22	30.34	0.03	0.531	0.004	0.74	0.24	1.25	0.11
2021 Mar	Mean	104.74	120.37	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.10	0.03	0.57	0.53	0.30	0.26	0.13	0.003	0.005	0.20	0.56	10.89	0.002	0.002	0.22	0.01	1.71	0.005	0.05	0.88	0.02	6.66	0.12	2.69	1.62	0.20	25.13	0.03	0.489	0.003	0.65	0.22	1.10	0.10
2021 Apr	Mean	99.42	114.11	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.49	0.02	0.53	0.22	0.28	0.21	0.12	0.003	0.005	0.19	0.52	10.30	0.001	0.001	0.21	0.01	0.78	0.005	0.05	0.87	0.02	6.25	0.06	1.50	1.53	0.19	18.95	0.03	0.465	0.003	0.55	0.20	1.03	0.09
2021 May	Mean	103.38	118.60	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.65	0.01	0.55	0.18	0.29	0.22	0.13	0.003	0.005	0.20	0.54	10.70	0.001	0.001	0.22	0.01	0.68	0.005	0.05	0.91	0.02	6.47	0.05	1.36	1.59	0.20	18.80	0.03	0.484	0.003	0.57	0.21	1.11	0.10
2021 Jun	Mean	105.42	120.95	0.01	0.00	0.12	0.03	0.03	0.01	0.01	31.26	0.02	0.56	0.28	0.30	0.22	0.13	0.003	0.005	0.20	0.55	10.91	0.001	0.001	0.22	0.01	0.96	0.005	0.05	0.92	0.02	6.60	0.07	1.78	1.62	0.20	20.91	0.03	0.493	0.003	0.60	0.22	0.97	0.10
2021 Jul	Mean	106.05	121.76	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.46	0.02	0.57	0.44	0.30	0.24	0.13	0.003	0.005	0.20	0.56	11.00	0.002	0.002	0.23	0.01	1.44	0.005	0.05	0.91	0.02	6.68	0.11	2.37	1.63	0.20	23.71	0.03	0.496	0.003	0.63	0.22	1.01	0.10
2021 Aug	Mean	106.21	121.98	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.52	0.03	0.57	0.57	0.30	0.26	0.13	0.003	0.005	0.20	0.56	11.02	0.002	0.002	0.23	0.01	1.81	0.005	0.05	0.91	0.02	6.72	0.13	2.82	1.64	0.20	25.79	0.03	0.496	0.003	0.66	0.22	1.07	0.10
2021 Sep	Mean	105.83	121.57	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.41	0.03	0.57	0.68	0.31	0.27	0.13	0.003	0.005	0.20	0.56	10.99	0.002	0.002	0.23	0.01	2.15	0.005	0.05	0.90	0.03	6.71	0.15	3.22	1.63	0.20	27.54	0.03	0.494	0.003	0.68	0.22	1.13	0.10
2021 Oct	Mean	105.58	121.30	0.01	0.00	0.15	0.03	0.04	0.02	0.01	31.34	0.04	0.57	0.83	0.31	0.28	0.13	0.003	0.005	0.20	0.56	10.96	0.003	0.003	0.23	0.01	2.62	0.005	0.05	0.90	0.03	6.70	0.18	3.75	1.63	0.20	29.92	0.03	0.493	0.004	0.71	0.23	1.22	0.10
2021 Nov	Mean	107.78	123.80	0.01	0.00	0.16	0.04	0.04	0.02	0.01	31.99	0.05	0.58	1.12	0.32	0.31	0.14	0.003	0.005	0.21	0.57	11.19	0.004	0.004	0.23	0.01	3.47	0.005	0.05	0.92	0.03	6.83	0.24	4.76	1.66	0.21	34.63	0.03	0.503	0.004	0.77	0.24	1.40	0.10
2021 Dec	Mean	112.43	129.19	0.01	0.00	0.20	0.04	0.04	0.03	0.01	33.37	0.07	0.61	1.74	0.34	0.38	0.14	0.004	0.005	0.21	0.60	11.68	0.006	0.005	0.24	0.02	5.35	0.005	0.06	0.95	0.04	7.14	0.36	6.98	1.74	0.22	45.16	0.03	0.524	0.005	0.92	0.25	1.76	0.10
2022 Jan	Mean	113.98	131.18	0.01	0.00	0.25	0.04	0.05	0.03	0.01	33.87	0.10	0.62	2.21	0.36	0.48	0.15	0.004	0.006	0.22	0.62	11.88	0.010	0.007	0.24	0.02	6.76	0.005	0.06	0.92	0.06	7.35	0.55	8.65	1.77	0.22	53.07	0.03	0.530	0.005	1.02	0.27	2.32	0.11
2022 Feb	Mean	110.09	126.86	0.01	0.00	0.28	0.04	0.06	0.03	0.01	32.75	0.13	0.61	2.37	0.37	0.55	0.14	0.005	0.006	0.21	0.60	11.51	0.012	0.009	0.24	0.02	7.24	0.005	0.06	0.86	0.07	7.18	0.68	9.19	1.72	0.21	55.23	0.03	0.511	0.006	1.03	0.28	2.70	0.10
2022 Mar	Mean	101.71	117.11	0.01	0.00	0.24	0.04	0.05	0.03	0.01	30.24	0.10	0.56	1.79	0.33	0.46	0.13	0.004	0.005	0.20	0.55	10.																						

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jul	Mean	101.44	116.73	0.01	0.00	0.29	0.04	0.06	0.04	0.01	30.14	0.14	0.55	2.91	0.35	0.56	0.13	0.005	0.005	0.19	0.55	10.57	0.014	0.011	0.22	0.01	8.86	0.005	0.05	0.82	0.08	6.53	0.76	10.96	1.57	0.19	61.72	0.03	0.472	0.006	1.08	0.27	2.94	0.09
2023 Aug	Mean	100.91	116.20	0.01	0.01	0.33	0.04	0.06	0.04	0.01	30.00	0.17	0.55	3.49	0.36	0.64	0.13	0.005	0.005	0.19	0.55	10.54	0.016	0.013	0.22	0.01	10.61	0.005	0.05	0.81	0.09	6.54	0.91	13.01	1.57	0.19	70.90	0.03	0.469	0.007	1.19	0.28	3.31	0.09
2023 Sep	Mean	100.25	115.48	0.01	0.01	0.35	0.04	0.06	0.05	0.01	29.81	0.18	0.55	3.81	0.37	0.68	0.13	0.005	0.005	0.19	0.55	10.48	0.018	0.014	0.21	0.01	11.58	0.005	0.05	0.79	0.10	6.52	0.99	14.14	1.56	0.19	75.90	0.03	0.466	0.007	1.25	0.28	3.51	0.09
2023 Oct	Mean	99.95	115.16	0.01	0.01	0.36	0.04	0.06	0.05	0.01	29.73	0.19	0.55	3.92	0.37	0.69	0.13	0.005	0.005	0.19	0.55	10.45	0.018	0.015	0.21	0.01	11.91	0.005	0.05	0.79	0.10	6.51	1.02	14.52	1.56	0.19	77.60	0.03	0.464	0.007	1.27	0.28	3.59	0.09
2023 Nov	Mean	101.99	117.47	0.01	0.01	0.36	0.04	0.07	0.05	0.01	30.33	0.19	0.56	3.91	0.37	0.69	0.13	0.006	0.005	0.20	0.56	10.65	0.018	0.015	0.22	0.01	11.89	0.005	0.05	0.81	0.10	6.62	1.02	14.49	1.59	0.20	77.68	0.03	0.474	0.007	1.28	0.29	3.65	0.09
2023 Dec	Mean	106.50	122.72	0.02	0.01	0.42	0.04	0.07	0.05	0.01	31.68	0.22	0.59	4.70	0.40	0.80	0.14	0.006	0.005	0.20	0.58	11.14	0.022	0.017	0.23	0.02	14.25	0.005	0.06	0.84	0.12	6.94	1.22	17.29	1.66	0.20	90.76	0.03	0.495	0.008	1.45	0.31	4.21	0.10
2024 Jan	Mean	106.90	123.42	0.02	0.01	0.51	0.05	0.09	0.07	0.01	31.84	0.28	0.60	6.56	0.44	0.97	0.14	0.007	0.006	0.21	0.60	11.23	0.028	0.022	0.23	0.02	19.86	0.005	0.21	0.80	0.15	7.09	1.55	23.84	1.68	0.20	120.30	0.03	0.495	0.010	1.81	0.34	5.13	0.10
2024 Feb	Mean	100.20	115.86	0.02	0.01	0.52	0.04	0.09	0.08	0.01	29.88	0.29	0.57	7.41	0.42	1.00	0.13	0.007	0.005	0.20	0.57	10.56	0.029	0.023	0.21	0.02	22.40	0.005	0.36	0.71	0.15	6.73	1.61	26.75	1.58	0.19	132.60	0.03	0.462	0.010	1.94	0.33	5.31	0.09
2024 Mar	Mean	96.61	111.45	0.01	0.01	0.37	0.04	0.07	0.06	0.01	28.76	0.20	0.54	4.97	0.36	0.73	0.12	0.006	0.005	0.19	0.54	10.13	0.019	0.015	0.21	0.01	15.07	0.004	0.27	0.73	0.10	6.36	1.07	18.08	1.51	0.18	93.21	0.03	0.448	0.008	1.45	0.28	4.01	0.09
2024 Apr	Mean	92.53	106.50	0.01	0.01	0.22	0.03	0.04	0.03	0.01	27.50	0.10	0.51	2.33	0.30	0.46	0.12	0.005	0.005	0.18	0.50	9.65	0.010	0.007	0.20	0.01	7.17	0.004	0.15	0.75	0.06	5.97	0.49	8.62	1.44	0.18	50.30	0.03	0.430	0.005	0.92	0.23	3.07	0.09
2024 May	Mean	96.41	110.91	0.01	0.01	0.19	0.03	0.04	0.03	0.01	28.64	0.08	0.53	1.85	0.30	0.43	0.12	0.005	0.005	0.18	0.52	10.04	0.008	0.006	0.21	0.01	5.76	0.004	0.13	0.79	0.05	6.19	0.39	6.93	1.50	0.19	43.23	0.03	0.449	0.005	0.84	0.23	2.98	0.09
2024 Jun	Mean	100.23	115.31	0.01	0.00	0.26	0.04	0.05	0.04	0.01	29.78	0.12	0.55	3.00	0.34	0.52	0.13	0.005	0.005	0.19	0.54	10.44	0.012	0.009	0.21	0.01	9.17	0.005	0.18	0.82	0.07	6.44	0.65	11.17	1.55	0.19	62.52	0.03	0.467	0.006	1.09	0.25	2.98	0.09
2024 Jul	Mean	99.80	114.99	0.01	0.01	0.35	0.04	0.06	0.05	0.01	29.68	0.18	0.55	4.59	0.36	0.68	0.13	0.006	0.005	0.19	0.55	10.43	0.018	0.014	0.21	0.01	13.92	0.005	0.26	0.79	0.10	6.50	0.99	16.80	1.56	0.19	87.73	0.03	0.464	0.007	1.39	0.28	3.65	0.09
2024 Aug	Mean	98.82	113.96	0.02	0.01	0.40	0.04	0.07	0.06	0.01	29.41	0.22	0.55	5.54	0.38	0.78	0.13	0.006	0.005	0.19	0.55	10.35	0.021	0.017	0.21	0.01	16.79	0.004	0.30	0.76	0.12	6.48	1.19	20.17	1.55	0.19	102.72	0.03	0.458	0.008	1.57	0.30	4.15	0.09
2024 Sep	Mean	97.84	112.87	0.02	0.01	0.43	0.04	0.07	0.06	0.01	29.13	0.24	0.54	5.99	0.39	0.82	0.13	0.006	0.005	0.19	0.54	10.26	0.023	0.018	0.21	0.01	18.13	0.004	0.32	0.74	0.12	6.44	1.29	21.74	1.53	0.19	109.63	0.03	0.453	0.008	1.65	0.30	4.36	0.09
2024 Oct	Mean	97.40	112.37	0.02	0.01	0.43	0.04	0.07	0.07	0.01	29.00	0.24	0.54	6.04	0.39	0.83	0.13	0.006	0.005	0.19	0.54	10.21	0.023	0.018	0.21	0.01	18.27	0.004	0.32	0.74	0.12	6.42	1.30	21.88	1.53	0.19	110.23	0.03	0.451	0.009	1.66	0.30	4.42	0.09
2024 Nov	Mean	99.37	114.60	0.02	0.01	0.43	0.04	0.07	0.07	0.01	29.58	0.24	0.55	6.02	0.39	0.83	0.13	0.007	0.005	0.19	0.55	10.41	0.023	0.018	0.21	0.01	18.23	0.005	0.32	0.76	0.12	6.53	1.29	21.82	1.56	0.19	110.15	0.03	0.461	0.009	1.67	0.31	4.51	0.09
2024 Dec	Mean	101.72	117.40	0.02	0.01	0.51	0.04	0.09	0.08	0.01	30.29	0.29	0.57	7.33	0.42	0.97	0.13	0.007	0.005	0.20	0.57	10.68	0.028	0.022	0.22	0.02	22.15	0.005	0.38	0.76	0.15	6.73	1.57	26.43	1.60	0.19	131.11	0.03	0.471	0.010	1.93	0.33	5.22	0.09
2025 Jan	Mean	104.25	120.06	0.02	0.01	0.47	0.04	0.08	0.07	0.01	31.00	0.24	0.57	6.05	0.41	0.88	0.13	0.007	0.005	0.20	0.57	10.89	0.025	0.017	0.22	0.01	17.66	0.005	0.77	0.83	0.14	6.76	1.42	19.71	1.62	0.20	108.92	0.03	0.484	0.009	1.67	0.32	4.67	0.10
2025 Feb	Mean	104.65	120.45	0.02	0.01	0.46	0.04	0.08	0.06	0.01	31.10	0.22	0.57	5.58	0.41	0.85	0.13	0.006	0.005	0.20	0.57	10.91	0.024	0.015	0.22	0.01	16.00	0.005	0.89	0.85	0.13	6.75	1.37	17.23	1.63	0.20	100.63	0.03	0.487	0.009	1.58	0.32	4.48	0.10
2025 Mar	Mean	102.27	117.68	0.02	0.01	0.43	0.04	0.07	0.06	0.01	30.39	0.20	0.56	5.14	0.40	0.80	0.13	0.006	0.005	0.20	0.55	10.66	0.023	0.014	0.22	0.01	14.64	0.005	0.87	0.83	0.12	6.58	1.28	15.59	1.59	0.20	93.21	0.03	0.476	0.008	1.48	0.31	4.21	0.10
2025 Apr	Mean	337.16	387.27	0.03	0.01	0.70	0.12	0.15	0.09	0.02	100.06	0.25	1.82	5.78	1.06	1.39	0.42	0.015	0.016	0.64	1.79	35.00	0.027	0.017	0.72	0.05	16.82	0.015	1.08	2.88	0.17	21.34	1.46	18.74	5.20	0.65	137.87	0.10	1.574	0.017	2.79	0.79	8.11	0.31
2025 May	Mean	5094.76	5849.68	0.31	0.20	6.85	1.66	1.69	0.93	0.28	1511.53	1.67	27.39	30.49	14.76	14.66	6.40	0.204	0.243	9.67	26.92	528.38	0.164	0.098	10.87	0.69	95.33	0.232	6.89	43.85	1.30	321.38	7.69	119.16	78.43	9.84	1221.43	1.52	23.800	0.195	31.60	10.84	97.70	4.76
2025 Jun	Mean	2273.22	2608.58	0.14	0.08	2.94	0.73	0.74	0.39	0.13	674.15	0.65	12.17	11.64	6.53	6.08	2.84	0.083	0.107	4.31	11.94	235.45	0.062	0.039	4.85	0.31	36.65	0.104	2.79	19.83	0.53	142.65	3.01	48.27	34.92	4.39	517.04	0.68	10.630	0.082	13.74	4.79	38.27	2.13
2025 Jul	Mean	133.19	152.84	0.01	0.01	0.29	0.05	0.06	0.04	0.01	39.50	0.11	0.71	2.55	0.42	0.54	0.17	0.005	0.006	0.25	0.70	13.79	0.011	0.007	0.28	0.02	7.39	0.006	0.49	1.16	0.07	8.36	0.64	8.42	2.05	0.26	58.91	0.04	0.623	0.006	1.15	0.32	2.76	0.12
2025 Aug	Mean	101.56	116.62	0.01	0.00	0.29	0.04	0.06	0.04	0.01	30.13	0.12	0.55	3.09	0.35	0.54	0.13	0.004	0.005	0.19	0.54	10.53	0.013	0.009	0.22	0.01	8.90	0.005	0.58	0.87	0.08	6.41	0.76	9.85	1.56	0.20	62.36	0.03	0.474	0.006	1.09	0.26	2.74	0.09
2025 Sep	Mean	100.64	115.58	0.01	0.00	0.31	0.04	0.06	0.04	0.01	29.86	0.1																																

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	103.98	119.91	0.02	0.01	0.60	0.05	0.10	0.08	0.01	30.95	0.33	0.58	7.48	0.46	1.12	0.13	0.008	0.005	0.20	0.58	10.89	0.034	0.023	0.22	0.02	21.63	0.005	2.13	0.80	0.18	6.82	1.91	23.57	1.63	0.20	130.18	0.03	0.482	0.011	1.94	0.36	6.00	0.10
2027 Feb	Mean	102.07	117.78	0.02	0.01	0.60	0.05	0.10	0.07	0.01	30.39	0.32	0.57	7.14	0.46	1.14	0.13	0.008	0.005	0.20	0.57	10.71	0.035	0.023	0.22	0.02	20.55	0.005	2.12	0.77	0.18	6.74	1.94	22.23	1.60	0.19	124.48	0.03	0.473	0.011	1.86	0.36	6.08	0.09
2027 Mar	Mean	99.15	114.42	0.02	0.01	0.58	0.04	0.09	0.07	0.01	29.52	0.30	0.55	6.64	0.44	1.09	0.13	0.008	0.005	0.19	0.55	10.40	0.033	0.022	0.21	0.01	19.09	0.004	2.00	0.75	0.17	6.55	1.85	20.58	1.56	0.19	116.37	0.03	0.459	0.011	1.75	0.35	5.82	0.09
2027 Apr	Mean	231.81	267.15	0.03	0.01	0.70	0.09	0.13	0.09	0.01	68.96	0.32	1.28	6.56	0.81	1.43	0.30	0.014	0.012	0.45	1.27	24.25	0.034	0.022	0.50	0.03	19.19	0.011	2.01	1.81	0.19	15.12	1.83	21.03	3.62	0.44	134.96	0.07	1.076	0.016	2.42	0.62	8.82	0.22
2027 May	Mean	4417.21	5088.96	0.29	0.24	6.37	1.50	1.54	0.90	0.24	1313.74	1.91	24.31	31.16	13.14	15.84	5.66	0.240	0.225	8.50	24.19	461.67	0.198	0.108	9.44	0.64	99.59	0.200	9.82	34.87	1.37	287.38	8.27	115.87	68.87	8.46	1132.43	1.33	20.517	0.200	28.53	9.67	123.02	4.10
2027 Jun	Mean	2858.55	3289.03	0.18	0.14	4.08	0.96	0.99	0.56	0.16	849.38	1.16	15.59	19.14	8.44	9.51	3.64	0.138	0.142	5.47	15.45	297.89	0.117	0.069	6.10	0.40	60.76	0.130	6.27	23.34	0.85	183.83	5.22	73.74	44.36	5.49	719.85	0.86	13.306	0.122	18.24	6.21	68.87	2.66
2027 Jul	Mean	165.46	190.13	0.02	0.01	0.42	0.06	0.08	0.05	0.01	49.12	0.17	0.89	3.54	0.54	0.80	0.21	0.008	0.008	0.32	0.88	17.19	0.018	0.012	0.35	0.02	10.37	0.008	1.14	1.39	0.11	10.52	1.00	11.90	2.56	0.32	79.26	0.05	0.772	0.009	1.51	0.41	4.37	0.15
2027 Aug	Mean	99.47	114.41	0.02	0.01	0.38	0.04	0.07	0.05	0.01	29.55	0.18	0.54	3.96	0.37	0.72	0.13	0.006	0.005	0.19	0.54	10.36	0.020	0.013	0.21	0.01	11.48	0.005	1.25	0.82	0.11	6.38	1.11	12.77	1.54	0.19	75.80	0.03	0.463	0.008	1.25	0.29	3.75	0.09
2027 Sep	Mean	98.37	113.20	0.02	0.01	0.41	0.04	0.07	0.05	0.01	29.23	0.20	0.54	4.34	0.38	0.77	0.13	0.006	0.005	0.19	0.53	10.25	0.022	0.015	0.21	0.01	12.55	0.004	1.36	0.80	0.12	6.33	1.21	13.88	1.53	0.19	81.31	0.03	0.458	0.008	1.32	0.30	4.02	0.09
2027 Oct	Mean	121.55	139.85	0.02	0.01	0.47	0.05	0.08	0.06	0.01	36.12	0.22	0.66	4.85	0.46	0.88	0.15	0.007	0.006	0.23	0.66	12.67	0.024	0.016	0.26	0.02	14.05	0.006	1.52	0.99	0.13	7.81	1.36	15.57	1.89	0.23	92.68	0.04	0.566	0.009	1.53	0.35	4.68	0.11
2027 Nov	Mean	101.95	117.37	0.02	0.01	0.45	0.04	0.08	0.05	0.01	30.31	0.23	0.56	4.90	0.40	0.85	0.13	0.006	0.005	0.20	0.55	10.64	0.024	0.016	0.22	0.01	14.16	0.005	1.53	0.82	0.13	6.59	1.37	15.59	1.59	0.20	90.44	0.03	0.474	0.009	1.44	0.32	4.49	0.09
2027 Dec	Mean	104.07	119.96	0.02	0.01	0.56	0.05	0.09	0.07	0.01	30.96	0.29	0.57	6.28	0.44	1.05	0.13	0.008	0.005	0.20	0.57	10.89	0.031	0.021	0.22	0.02	18.15	0.005	1.95	0.81	0.16	6.80	1.75	19.81	1.63	0.20	111.90	0.03	0.483	0.011	1.71	0.35	5.57	0.10
2028 Jan	Mean	103.86	119.85	0.02	0.01	0.62	0.05	0.10	0.08	0.01	30.92	0.33	0.58	7.39	0.47	1.17	0.13	0.008	0.005	0.20	0.58	10.90	0.036	0.024	0.22	0.02	21.40	0.005	2.41	0.78	0.19	6.86	1.99	23.43	1.63	0.20	129.03	0.03	0.481	0.012	1.92	0.37	6.25	0.10
2028 Feb	Mean	102.10	117.89	0.02	0.01	0.62	0.05	0.10	0.08	0.01	30.42	0.33	0.57	7.76	0.46	1.18	0.13	0.008	0.005	0.20	0.57	10.73	0.036	0.024	0.22	0.02	22.54	0.005	2.64	0.76	0.19	6.78	2.03	24.82	1.61	0.19	134.73	0.03	0.472	0.012	1.99	0.37	6.34	0.09
2028 Mar	Mean	98.88	114.18	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.46	0.32	0.55	7.52	0.45	1.14	0.13	0.008	0.005	0.19	0.55	10.39	0.035	0.024	0.21	0.01	21.87	0.004	2.59	0.73	0.18	6.57	1.94	24.15	1.56	0.19	130.65	0.03	0.457	0.011	1.92	0.36	6.09	0.09
2028 Apr	Mean	140.20	161.56	0.02	0.01	0.57	0.06	0.10	0.08	0.01	41.70	0.28	0.77	6.52	0.54	1.11	0.18	0.009	0.007	0.27	0.77	14.66	0.030	0.020	0.30	0.02	19.10	0.006	2.27	1.10	0.16	9.14	1.67	21.29	2.19	0.27	121.28	0.04	0.651	0.012	1.95	0.42	6.36	0.13
2028 May	Mean	2849.30	3283.83	0.20	0.19	4.44	0.98	1.04	0.70	0.15	847.65	1.60	15.72	28.24	8.63	11.86	3.66	0.194	0.146	5.49	15.66	298.05	0.171	0.088	6.09	0.41	90.31	0.129	9.25	22.27	1.04	185.99	6.62	97.79	44.49	5.45	834.30	0.86	13.226	0.152	19.75	6.37	105.45	2.65
2028 Jun	Mean	2650.45	3054.17	0.17	0.17	3.89	0.91	0.93	0.62	0.14	788.40	1.34	14.61	22.62	7.94	10.56	3.40	0.177	0.136	5.10	14.55	277.15	0.143	0.070	5.66	0.38	73.48	0.120	7.38	20.80	0.88	172.77	5.23	79.74	41.36	5.07	720.34	0.80	12.306	0.137	17.68	5.85	95.31	2.46
2028 Jul	Mean	100.59	115.62	0.01	0.00	0.33	0.04	0.06	0.04	0.01	29.87	0.15	0.55	3.54	0.36	0.62	0.13	0.005	0.005	0.19	0.54	10.46	0.016	0.011	0.21	0.01	10.42	0.005	1.28	0.84	0.09	6.41	0.90	11.98	1.56	0.19	69.92	0.03	0.469	0.007	1.18	0.27	3.27	0.09
2028 Aug	Mean	100.36	115.48	0.02	0.01	0.42	0.04	0.07	0.05	0.01	29.82	0.21	0.55	4.87	0.39	0.78	0.13	0.006	0.005	0.19	0.54	10.46	0.022	0.015	0.21	0.01	14.30	0.005	1.75	0.82	0.12	6.46	1.23	16.22	1.56	0.19	90.38	0.03	0.467	0.008	1.43	0.30	4.14	0.09
2028 Sep	Mean	97.69	112.47	0.02	0.01	0.43	0.04	0.07	0.06	0.01	29.04	0.22	0.53	5.18	0.39	0.82	0.12	0.006	0.005	0.19	0.53	10.19	0.023	0.016	0.21	0.01	15.20	0.004	1.85	0.79	0.13	6.31	1.31	17.17	1.52	0.19	94.79	0.03	0.454	0.009	1.48	0.30	4.32	0.09
2028 Oct	Mean	143.04	165.07	0.02	0.01	0.57	0.06	0.10	0.08	0.01	42.59	0.29	0.80	6.63	0.55	1.17	0.19	0.011	0.008	0.28	0.80	15.01	0.031	0.021	0.31	0.02	19.60	0.006	2.33	1.08	0.16	9.44	1.65	21.74	2.24	0.27	122.95	0.04	0.663	0.013	1.98	0.43	7.53	0.13
2028 Nov	Mean	101.28	116.65	0.02	0.01	0.48	0.04	0.08	0.06	0.01	30.12	0.24	0.56	5.73	0.41	0.90	0.13	0.007	0.005	0.19	0.55	10.58	0.026	0.018	0.22	0.01	16.76	0.005	2.03	0.80	0.14	6.58	1.46	18.84	1.58	0.19	103.72	0.03	0.471	0.009	1.60	0.32	4.74	0.09
2028 Dec	Mean	104.07	120.02	0.02	0.01	0.57	0.05	0.09	0.08	0.01	30.97	0.30	0.58	7.17	0.45	1.08	0.13	0.008	0.005	0.20	0.58	10.90	0.032	0.022	0.22	0.02	20.95	0.005	2.53	0.80	0.17	6.83	1.82	23.39	1.63	0.20	126.32	0.03	0.483	0.011	1.89	0.36	5.78	0.10
2029 Jan	Mean	103.66	119.67	0.02	0.01	0.65	0.05	0.10	0.09	0.01	30.88	0.35	0.58	8.45	0.47	1.22	0.13	0.009	0.005	0.20	0.58	10.88	0.037	0.026	0.22	0.02	24.63	0.005	2.98	0.77	0.20	6.87	2.10	27.26	1.63	0.20	145.69	0.03	0.480	0.012	2.12	0.38	6.56	0.10
2029 Feb	Mean	101.29	116.97	0.03	0.01	0.66	0.05	0.11	0.09	0.01	30.18	0.36	0.57	8.95	0.48	1.26	0.13	0.009	0.005	0.20	0.57	10.64	0.039	0.026	0.22	0.02	26.04	0.005	3.17	0.75	0.20	6.73	2.18	28.68	1.59	0.19	152.84	0.03	0.469	0.013	2.20	0.38	6.77	0.09
2029 Mar	Mean	97.94	113.10	0.02	0.01	0.65	0.05																																					

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	142.08	163.37	0.02	0.01	0.45	0.05	0.08	0.07	0.01	42.20	0.21	0.77	5.43	0.50	0.87	0.18	0.008	0.007	0.27	0.76	14.78	0.022	0.015	0.30	0.02	16.08	0.006	2.01	1.18	0.12	9.09	1.19	18.36	2.20	0.27	104.91	0.04	0.662	0.010	1.75	0.38	5.04	0.13
2030 Aug	Mean	98.01	112.80	0.02	0.01	0.44	0.04	0.07	0.06	0.01	29.13	0.22	0.54	5.97	0.39	0.82	0.12	0.006	0.005	0.19	0.53	10.22	0.023	0.016	0.21	0.01	17.56	0.004	2.20	0.80	0.13	6.31	1.32	19.88	1.52	0.19	106.94	0.03	0.456	0.009	1.63	0.30	4.35	0.09
2030 Sep	Mean	97.18	111.88	0.02	0.01	0.46	0.04	0.08	0.07	0.01	28.89	0.23	0.53	6.30	0.39	0.85	0.12	0.006	0.005	0.19	0.53	10.14	0.025	0.017	0.21	0.01	18.52	0.004	2.31	0.78	0.13	6.28	1.39	20.89	1.51	0.19	111.94	0.03	0.452	0.009	1.69	0.31	4.55	0.09
2030 Oct	Mean	97.47	112.21	0.02	0.01	0.45	0.04	0.08	0.07	0.01	28.97	0.23	0.53	6.17	0.39	0.84	0.12	0.006	0.005	0.19	0.53	10.17	0.024	0.017	0.21	0.01	18.11	0.004	2.26	0.78	0.13	6.30	1.37	20.41	1.52	0.19	109.92	0.03	0.453	0.009	1.66	0.31	4.48	0.09
2030 Nov	Mean	100.89	116.21	0.02	0.01	0.50	0.04	0.08	0.07	0.01	30.00	0.26	0.55	6.97	0.42	0.94	0.13	0.007	0.005	0.19	0.55	10.54	0.028	0.019	0.22	0.01	20.43	0.005	2.54	0.80	0.15	6.55	1.55	22.94	1.57	0.19	122.71	0.03	0.469	0.010	1.83	0.33	4.99	0.09
2030 Dec	Mean	103.39	119.24	0.02	0.01	0.61	0.05	0.10	0.09	0.01	30.77	0.33	0.57	8.82	0.46	1.15	0.13	0.008	0.005	0.20	0.57	10.83	0.035	0.024	0.22	0.02	25.84	0.005	3.21	0.79	0.18	6.79	1.96	28.86	1.62	0.20	151.58	0.03	0.479	0.012	2.19	0.37	6.14	0.10
2031 Jan	Mean	102.90	118.82	0.03	0.01	0.68	0.05	0.11	0.11	0.01	30.66	0.37	0.58	10.51	0.48	1.29	0.13	0.009	0.005	0.20	0.58	10.81	0.040	0.027	0.22	0.02	30.77	0.005	3.73	0.76	0.21	6.83	2.24	34.32	1.62	0.20	177.45	0.03	0.476	0.013	2.51	0.39	6.95	0.10
2031 Feb	Mean	100.57	116.21	0.03	0.01	0.70	0.05	0.11	0.11	0.01	29.97	0.39	0.56	11.28	0.49	1.33	0.13	0.009	0.005	0.20	0.57	10.58	0.042	0.028	0.22	0.02	33.06	0.005	3.93	0.73	0.21	6.72	2.33	36.89	1.59	0.19	189.06	0.03	0.465	0.013	2.64	0.39	7.17	0.09
2031 Mar	Mean	97.27	112.40	0.03	0.01	0.68	0.05	0.11	0.11	0.01	28.99	0.37	0.55	11.03	0.47	1.28	0.13	0.009	0.005	0.19	0.55	10.24	0.040	0.027	0.21	0.01	32.35	0.004	3.82	0.71	0.21	6.50	2.25	36.12	1.53	0.18	184.81	0.03	0.449	0.013	2.58	0.38	6.94	0.09
2031 Apr	Mean	105.47	121.65	0.02	0.01	0.55	0.05	0.09	0.09	0.01	31.39	0.29	0.58	8.61	0.45	1.07	0.14	0.008	0.005	0.20	0.58	11.05	0.031	0.021	0.23	0.02	25.32	0.005	2.98	0.81	0.16	6.93	1.74	28.37	1.65	0.20	148.59	0.03	0.489	0.011	2.16	0.35	5.95	0.10
2031 May	Mean	3320.54	3826.72	0.24	0.25	5.36	1.15	1.23	0.99	0.18	987.80	2.15	18.31	45.39	10.13	15.23	4.26	0.261	0.170	6.39	18.24	347.30	0.236	0.110	7.09	0.48	144.51	0.151	14.37	25.99	1.30	216.64	8.37	150.00	51.84	6.35	1138.95	1.00	15.415	0.197	25.06	7.46	149.62	3.08
2031 Jun	Mean	2655.01	3057.35	0.18	0.18	4.04	0.91	0.95	0.72	0.14	789.37	1.51	14.56	31.04	7.99	11.19	3.39	0.191	0.134	5.10	14.47	277.20	0.164	0.077	5.67	0.38	99.43	0.120	9.93	21.22	0.94	172.02	5.75	105.03	41.33	5.09	836.01	0.80	12.341	0.146	19.09	5.87	107.37	2.47
2031 Jul	Mean	124.33	142.97	0.02	0.01	0.40	0.05	0.07	0.06	0.01	36.93	0.19	0.68	5.48	0.44	0.78	0.16	0.007	0.006	0.24	0.67	12.94	0.020	0.014	0.27	0.02	16.22	0.006	1.92	1.03	0.11	7.96	1.10	18.54	1.93	0.24	103.15	0.04	0.579	0.009	1.67	0.34	4.45	0.12
2031 Aug	Mean	97.70	112.47	0.02	0.01	0.45	0.04	0.08	0.07	0.01	29.04	0.23	0.53	6.82	0.39	0.84	0.12	0.006	0.005	0.19	0.53	10.19	0.024	0.017	0.21	0.01	20.11	0.004	2.39	0.79	0.13	6.31	1.37	22.82	1.52	0.19	120.14	0.03	0.454	0.009	1.79	0.31	4.50	0.09
2031 Sep	Mean	96.40	111.04	0.02	0.01	0.48	0.04	0.08	0.08	0.01	28.67	0.25	0.53	7.51	0.40	0.91	0.12	0.007	0.005	0.19	0.53	10.07	0.027	0.019	0.21	0.01	22.12	0.004	2.63	0.77	0.14	6.26	1.50	25.04	1.50	0.18	130.54	0.03	0.448	0.009	1.91	0.32	4.85	0.09
2031 Oct	Mean	110.46	127.25	0.02	0.01	0.53	0.05	0.09	0.09	0.01	32.85	0.28	0.61	8.18	0.45	1.01	0.14	0.008	0.006	0.21	0.60	11.54	0.029	0.020	0.24	0.02	24.12	0.005	2.86	0.87	0.16	7.18	1.63	27.25	1.72	0.21	142.78	0.03	0.513	0.011	2.11	0.35	5.63	0.10
2031 Nov	Mean	99.46	114.63	0.02	0.01	0.55	0.04	0.09	0.09	0.01	29.59	0.30	0.55	8.87	0.43	1.04	0.13	0.008	0.005	0.19	0.55	10.40	0.032	0.022	0.21	0.01	26.12	0.005	3.10	0.78	0.17	6.49	1.77	29.51	1.55	0.19	152.01	0.03	0.462	0.011	2.18	0.34	5.59	0.09
2031 Dec	Mean	101.53	117.17	0.03	0.01	0.68	0.05	0.11	0.11	0.01	30.23	0.38	0.57	11.29	0.48	1.28	0.13	0.009	0.005	0.20	0.57	10.65	0.040	0.028	0.22	0.01	33.25	0.005	3.95	0.77	0.21	6.71	2.24	37.45	1.59	0.19	189.74	0.03	0.470	0.013	2.65	0.39	6.92	0.09
2032 Jan	Mean	100.99	116.68	0.03	0.01	0.75	0.05	0.12	0.13	0.01	30.10	0.42	0.57	13.10	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.62	0.045	0.031	0.22	0.02	38.58	0.005	4.47	0.74	0.23	6.74	2.52	43.40	1.59	0.19	217.59	0.03	0.467	0.014	2.99	0.41	7.69	0.09
2032 Feb	Mean	98.97	114.40	0.03	0.01	0.76	0.05	0.12	0.13	0.01	29.51	0.43	0.56	13.62	0.50	1.43	0.13	0.010	0.005	0.19	0.56	10.42	0.045	0.031	0.21	0.01	40.13	0.004	4.54	0.71	0.23	6.63	2.54	45.14	1.56	0.19	225.37	0.03	0.457	0.014	3.08	0.41	7.75	0.09
2032 Mar	Mean	95.97	110.93	0.03	0.01	0.72	0.05	0.11	0.13	0.01	28.61	0.41	0.54	13.11	0.48	1.36	0.13	0.009	0.005	0.19	0.54	10.11	0.043	0.030	0.21	0.01	38.62	0.004	4.33	0.69	0.22	6.43	2.42	43.44	1.52	0.18	217.05	0.03	0.443	0.014	2.97	0.39	7.40	0.09
2032 Apr	Mean	110.32	127.32	0.02	0.01	0.60	0.05	0.10	0.11	0.01	32.85	0.32	0.61	10.32	0.48	1.17	0.14	0.009	0.006	0.21	0.62	11.58	0.034	0.024	0.24	0.02	30.50	0.005	3.39	0.83	0.18	7.29	1.90	34.30	1.73	0.21	175.74	0.03	0.511	0.012	2.51	0.38	6.80	0.10
2032 May	Mean	3267.74	3766.72	0.24	0.25	5.59	1.14	1.26	1.06	0.18	972.25	2.31	18.05	54.60	10.08	15.52	4.20	0.258	0.168	6.30	17.99	341.95	0.252	0.124	6.98	0.47	171.67	0.148	16.81	25.42	1.39	213.63	9.43	182.11	51.05	6.25	1278.47	0.98	15.164	0.198	26.59	7.45	148.49	3.03
2032 Jun	Mean	2236.73	2576.49	0.16	0.16	3.54	0.77	0.82	0.65	0.12	665.16	1.36	12.29	31.10	6.78	9.73	2.86	0.163	0.114	4.30	12.23	233.70	0.147	0.072	4.78	0.32	98.58	0.101	9.62	17.73	0.84	145.32	5.39	105.58	34.86	4.28	782.65	0.67	10.392	0.126	17.04	5.00	92.07	2.08
2032 Jul	Mean	142.97	164.48	0.02	0.01	0.44	0.05	0.08	0.08	0.01	42.48	0.21	0.78	6.45	0.50	0.89	0.18	0.009	0.007	0.27	0.77	14.90	0.022	0.015	0.31	0.02	19.21	0.006	2.14	1.17	0.12	9.19	1.18	21.91	2.22	0.27	120.72	0.04	0.666	0.010	1.94	0.38	5.44	0.13
2032 Aug	Mean	97.43	112.19	0.02	0.01	0.46	0.04	0.08	0.08	0.01	28.97	0.24	0.53	7.63	0.39	0.86	0.12	0.006	0.005	0.19	0.53	10.17	0.025	0.017	0.21	0.01	22.55	0.004	2.53	0.78	0.13	6.31	1.40	25.67	1.52	0.19	132.78	0.03	0.453	0.009	1.94	0.31	4.60	0.09
2032 Sep	Mean	109.28	125.89	0.02	0.01																																							

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2034 Jan	Mean	103.09	119.14	0.03	0.01	0.68	0.05	0.11	0.13	0.01	30.73	0.38	0.58	13.18	0.49	1.30	0.13	0.009	0.006	0.20	0.58	10.85	0.040	0.028	0.22	0.02	38.82	0.005	4.07	0.75	0.21	6.89	2.24	43.67	1.63	0.20	219.21	0.03	0.476	0.013	2.83	0.39	6.98	0.10
2034 Feb	Mean	101.19	116.99	0.03	0.01	0.69	0.05	0.11	0.13	0.01	30.17	0.38	0.57	13.45	0.48	1.30	0.13	0.009	0.005	0.20	0.57	10.66	0.040	0.028	0.22	0.02	39.59	0.005	4.19	0.72	0.21	6.79	2.26	44.49	1.60	0.19	223.03	0.03	0.467	0.013	2.82	0.39	7.02	0.09
2034 Mar	Mean	98.16	113.48	0.02	0.01	0.65	0.05	0.10	0.12	0.01	29.27	0.36	0.55	12.68	0.46	1.23	0.13	0.009	0.005	0.19	0.56	10.34	0.038	0.026	0.21	0.01	37.32	0.004	3.96	0.70	0.20	6.59	2.13	41.90	1.55	0.19	210.72	0.03	0.453	0.012	2.66	0.37	6.63	0.09
2034 Apr	Mean	123.99	143.07	0.02	0.01	0.56	0.05	0.10	0.11	0.01	36.92	0.29	0.69	10.09	0.50	1.11	0.16	0.009	0.006	0.24	0.69	13.00	0.031	0.021	0.26	0.02	29.80	0.006	3.15	0.94	0.16	8.18	1.70	33.47	1.94	0.24	174.18	0.04	0.574	0.012	2.35	0.39	6.49	0.11
2034 May	Mean	3625.68	4180.52	0.25	0.28	5.63	1.27	1.33	1.08	0.20	1078.97	2.16	20.06	51.09	11.02	16.18	4.67	0.286	0.188	6.99	20.02	379.66	0.237	0.109	7.75	0.53	161.89	0.164	14.83	27.99	1.36	237.64	8.36	171.02	56.71	6.93	1276.06	1.09	16.816	0.210	27.02	8.16	157.17	3.36
2034 Jun	Mean	2534.97	2919.70	0.17	0.17	3.77	0.87	0.90	0.69	0.14	753.79	1.33	13.92	31.28	7.61	10.27	3.24	0.176	0.128	4.87	13.84	264.79	0.143	0.069	5.41	0.36	99.18	0.115	9.29	20.15	0.87	164.53	5.21	107.79	39.49	4.86	831.94	0.76	11.780	0.134	18.16	5.62	94.90	2.36
2034 Jul	Mean	221.71	255.23	0.02	0.01	0.55	0.08	0.11	0.10	0.01	65.90	0.24	1.21	7.84	0.74	1.19	0.28	0.014	0.011	0.43	1.20	23.13	0.026	0.016	0.47	0.03	23.46	0.010	2.46	1.79	0.15	14.33	1.32	26.57	3.45	0.43	153.28	0.07	1.031	0.014	2.46	0.56	8.04	0.21
2034 Aug	Mean	99.08	114.10	0.02	0.01	0.40	0.04	0.07	0.07	0.01	29.46	0.20	0.54	7.03	0.38	0.77	0.13	0.006	0.005	0.19	0.54	10.35	0.021	0.015	0.21	0.01	20.73	0.004	2.22	0.79	0.11	6.43	1.19	23.52	1.54	0.19	123.65	0.03	0.460	0.008	1.70	0.30	4.05	0.09
2034 Sep	Mean	97.91	112.82	0.02	0.01	0.43	0.04	0.07	0.08	0.01	29.12	0.22	0.54	7.74	0.39	0.82	0.13	0.006	0.005	0.19	0.54	10.24	0.023	0.016	0.21	0.01	22.80	0.004	2.44	0.77	0.13	6.38	1.31	25.81	1.53	0.19	134.40	0.03	0.455	0.009	1.81	0.30	4.35	0.09
2034 Oct	Mean	97.80	112.69	0.02	0.01	0.43	0.04	0.07	0.08	0.01	29.09	0.22	0.54	7.76	0.39	0.82	0.13	0.006	0.005	0.19	0.54	10.23	0.023	0.016	0.21	0.01	22.87	0.004	2.44	0.77	0.13	6.37	1.31	25.90	1.53	0.19	134.72	0.03	0.454	0.009	1.82	0.30	4.35	0.09
2034 Nov	Mean	101.28	116.76	0.02	0.01	0.49	0.04	0.08	0.09	0.01	30.14	0.25	0.56	9.01	0.41	0.93	0.13	0.007	0.005	0.20	0.56	10.60	0.027	0.018	0.22	0.01	26.54	0.005	2.84	0.79	0.14	6.63	1.51	30.01	1.58	0.19	154.54	0.03	0.470	0.010	2.05	0.33	4.91	0.09
2034 Dec	Mean	104.00	120.06	0.02	0.01	0.60	0.05	0.10	0.11	0.01	30.98	0.32	0.58	11.49	0.46	1.14	0.13	0.008	0.005	0.20	0.58	10.92	0.034	0.023	0.22	0.02	33.84	0.005	3.62	0.78	0.18	6.89	1.92	38.13	1.63	0.20	193.26	0.03	0.481	0.011	2.48	0.37	6.07	0.10
2035 Jan	Mean	100.37	116.07	0.03	0.01	0.79	0.05	0.12	0.14	0.01	29.93	0.42	0.57	14.18	0.51	1.49	0.13	0.010	0.005	0.20	0.57	10.58	0.047	0.029	0.21	0.02	40.84	0.005	4.08	0.71	0.24	6.75	2.65	43.67	1.59	0.19	230.72	0.03	0.463	0.015	2.87	0.42	8.08	0.09
2035 Feb	Mean	94.71	109.66	0.03	0.01	0.92	0.05	0.14	0.15	0.00	28.27	0.48	0.54	15.46	0.55	1.74	0.12	0.012	0.005	0.19	0.55	10.01	0.057	0.031	0.20	0.01	43.55	0.004	4.06	0.65	0.29	6.44	3.20	44.16	1.50	0.18	245.63	0.03	0.436	0.017	3.01	0.45	9.56	0.09
2035 Mar	Mean	90.49	104.79	0.03	0.01	0.92	0.05	0.14	0.14	0.00	27.01	0.48	0.52	14.97	0.54	1.74	0.12	0.012	0.005	0.18	0.52	9.57	0.058	0.031	0.19	0.01	41.79	0.004	3.77	0.61	0.29	6.16	3.22	41.41	1.44	0.17	236.23	0.03	0.417	0.017	2.90	0.44	9.60	0.08
2035 Apr	Mean	329.75	379.99	0.05	0.03	1.33	0.13	0.23	0.21	0.02	98.09	0.61	1.82	17.88	1.27	2.76	0.42	0.028	0.017	0.63	1.81	34.48	0.074	0.037	0.70	0.05	50.37	0.015	4.39	2.59	0.39	21.50	3.90	49.37	5.15	0.63	311.52	0.10	1.531	0.030	4.57	0.99	18.57	0.31
2035 May	Mean	4604.85	5297.92	0.37	0.32	8.47	1.60	1.86	1.40	0.25	1368.20	3.15	25.10	74.21	14.29	21.12	5.85	0.328	0.229	8.81	24.86	479.79	0.370	0.160	9.83	0.65	220.34	0.209	18.00	37.67	2.09	295.92	15.70	214.92	71.43	8.85	1728.83	1.38	21.438	0.270	35.25	10.65	185.39	4.29
2035 Jun	Mean	2840.92	3266.88	0.21	0.18	4.82	0.97	1.09	0.78	0.16	843.79	1.67	15.43	38.09	8.66	11.87	3.60	0.185	0.140	5.43	15.26	295.67	0.194	0.084	6.06	0.40	113.84	0.129	9.33	23.54	1.14	181.74	8.13	113.02	43.99	5.46	958.17	0.85	13.237	0.154	20.53	6.43	102.29	2.65
2035 Jul	Mean	125.37	144.28	0.02	0.01	0.52	0.05	0.09	0.08	0.01	37.26	0.24	0.68	7.05	0.48	1.01	0.16	0.009	0.006	0.24	0.68	13.07	0.028	0.015	0.27	0.02	19.75	0.006	1.76	1.02	0.15	8.08	1.55	19.71	1.95	0.24	123.12	0.04	0.583	0.011	1.78	0.38	5.93	0.12
2035 Aug	Mean	94.15	108.51	0.02	0.01	0.59	0.04	0.10	0.09	0.01	28.01	0.28	0.52	8.71	0.43	1.10	0.12	0.008	0.005	0.18	0.52	9.85	0.034	0.018	0.20	0.01	24.26	0.004	2.17	0.73	0.18	6.15	1.91	24.08	1.47	0.18	143.44	0.03	0.437	0.011	1.89	0.34	5.98	0.09
2035 Sep	Mean	92.28	106.44	0.02	0.01	0.64	0.04	0.10	0.10	0.00	27.47	0.31	0.51	9.76	0.44	1.20	0.12	0.008	0.005	0.18	0.51	9.67	0.038	0.020	0.20	0.01	27.20	0.004	2.44	0.71	0.20	6.07	2.13	26.99	1.45	0.18	158.79	0.03	0.428	0.012	2.05	0.36	6.55	0.09
2035 Oct	Mean	107.85	124.34	0.03	0.01	0.69	0.05	0.11	0.11	0.01	32.09	0.34	0.60	10.48	0.50	1.31	0.14	0.010	0.006	0.21	0.60	11.29	0.041	0.022	0.23	0.02	29.27	0.005	2.64	0.83	0.21	7.07	2.27	29.14	1.69	0.21	171.82	0.03	0.500	0.013	2.25	0.40	7.25	0.10
2035 Nov	Mean	94.74	109.35	0.03	0.01	0.73	0.05	0.12	0.11	0.01	28.21	0.37	0.53	11.52	0.48	1.37	0.12	0.009	0.005	0.18	0.53	9.94	0.044	0.024	0.20	0.01	32.19	0.004	2.92	0.71	0.23	6.26	2.47	32.10	1.49	0.18	185.55	0.03	0.439	0.014	2.35	0.39	7.51	0.09
2035 Dec	Mean	95.59	110.52	0.03	0.01	0.90	0.05	0.14	0.14	0.01	28.50	0.46	0.54	14.68	0.54	1.70	0.13	0.011	0.005	0.19	0.54	10.07	0.056	0.030	0.20	0.01	41.06	0.004	3.73	0.68	0.28	6.42	3.12	40.91	1.51	0.18	232.82	0.03	0.441	0.017	2.87	0.45	9.34	0.09
2036 Jan	Mean	94.15	109.01	0.04	0.01	1.01	0.06	0.15	0.16	0.00	28.10	0.52	0.54	16.55	0.57	1.90	0.12	0.013	0.005	0.18	0.54	9.95	0.063	0.034	0.20	0.01	46.23	0.004	4.19	0.64	0.32	6.40	3.53	45.91	1.50	0.18	260.16	0.03	0.434	0.019	3.16	0.48	10.46	0.09
2036 Feb	Mean	92.01	106.59	0.04	0.01	1.02	0.06	0.15	0.16	0.00	27.47	0.53	0.53	16.60	0.57	1.91	0.12	0.013	0.005	0.18	0.53	9.74	0.064	0.034	0.20	0.01	46.30	0.004	4.17	0.62	0.32	6.28	3.57	45.75	1.46	0.17	260.42	0.03	0.423	0.019	3.16	0.48	10.57	0.08
2036 Mar	Mean	89.17	103.30																																									

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	222.97	256.04	0.03	0.01	0.67	0.08	0.13	0.10	0.01	66.16	0.28	1.20	7.80	0.77	1.36	0.28	0.015	0.011	0.42	1.18	23.13	0.034	0.017	0.48	0.03	21.92	0.010	1.87	1.91	0.18	14.08	1.77	21.45	3.43	0.43	146.31	0.07	1.041	0.016	2.38	0.59	9.12	0.21
2037 Aug	Mean	96.06	110.69	0.02	0.01	0.57	0.04	0.09	0.08	0.01	28.57	0.27	0.53	8.02	0.43	1.06	0.12	0.008	0.005	0.18	0.53	10.04	0.033	0.017	0.21	0.01	22.17	0.004	1.93	0.75	0.17	6.26	1.82	21.61	1.50	0.18	132.88	0.03	0.446	0.011	1.79	0.34	5.77	0.09
2037 Sep	Mean	102.03	117.62	0.02	0.01	0.63	0.05	0.10	0.09	0.01	30.36	0.30	0.56	9.06	0.46	1.19	0.13	0.009	0.005	0.20	0.56	10.68	0.037	0.019	0.22	0.01	25.04	0.005	2.18	0.79	0.19	6.67	2.06	24.38	1.59	0.20	149.08	0.03	0.473	0.012	1.99	0.37	6.50	0.09
2037 Oct	Mean	96.06	110.76	0.02	0.01	0.61	0.04	0.10	0.09	0.01	28.59	0.29	0.53	8.86	0.44	1.15	0.12	0.008	0.005	0.19	0.53	10.06	0.036	0.018	0.21	0.01	24.49	0.004	2.13	0.74	0.19	6.29	2.01	23.85	1.50	0.18	145.28	0.03	0.446	0.012	1.93	0.36	6.28	0.09
2037 Nov	Mean	96.17	110.97	0.03	0.01	0.68	0.05	0.11	0.10	0.01	28.64	0.33	0.53	9.92	0.47	1.27	0.12	0.009	0.005	0.19	0.54	10.09	0.040	0.021	0.21	0.01	27.40	0.004	2.38	0.73	0.21	6.34	2.25	26.61	1.51	0.18	160.95	0.03	0.446	0.013	2.10	0.38	6.91	0.09
2037 Dec	Mean	97.64	112.86	0.03	0.01	0.83	0.05	0.13	0.12	0.01	29.11	0.41	0.55	12.53	0.52	1.57	0.13	0.011	0.005	0.19	0.55	10.28	0.051	0.026	0.21	0.01	34.58	0.004	2.99	0.70	0.26	6.54	2.84	33.40	1.54	0.19	199.64	0.03	0.451	0.016	2.53	0.43	8.58	0.09
2038 Jan	Mean	96.45	111.65	0.03	0.01	0.94	0.05	0.14	0.14	0.01	28.79	0.47	0.55	14.30	0.56	1.77	0.13	0.012	0.005	0.19	0.55	10.19	0.058	0.029	0.21	0.01	39.41	0.004	3.40	0.66	0.29	6.55	3.25	37.89	1.53	0.18	225.37	0.03	0.444	0.017	2.82	0.46	9.72	0.09
2038 Feb	Mean	94.07	108.97	0.04	0.01	0.96	0.05	0.15	0.14	0.00	28.09	0.48	0.54	14.59	0.56	1.80	0.12	0.012	0.005	0.18	0.54	9.95	0.060	0.030	0.20	0.01	40.18	0.004	3.45	0.63	0.30	6.42	3.33	38.50	1.50	0.18	229.25	0.03	0.433	0.018	2.85	0.46	9.93	0.09
2038 Mar	Mean	91.02	105.43	0.03	0.01	0.92	0.05	0.14	0.13	0.00	27.18	0.46	0.52	14.00	0.54	1.74	0.12	0.012	0.005	0.18	0.53	9.63	0.057	0.029	0.19	0.01	38.52	0.004	3.29	0.61	0.29	6.21	3.21	36.82	1.45	0.17	220.00	0.03	0.419	0.017	2.74	0.44	9.58	0.08
2038 Apr	Mean	258.99	297.95	0.05	0.02	1.16	0.11	0.20	0.17	0.01	76.95	0.54	1.41	15.37	1.03	2.33	0.33	0.022	0.013	0.50	1.40	26.98	0.066	0.032	0.55	0.04	42.76	0.012	3.60	2.12	0.34	16.63	3.51	40.85	4.02	0.50	262.07	0.08	1.206	0.026	3.79	0.81	15.21	0.24
2038 May	Mean	4396.67	5041.17	0.34	0.29	7.75	1.48	1.72	1.27	0.24	1303.12	2.77	23.41	62.48	13.36	18.37	5.48	0.295	0.204	8.31	22.89	454.54	0.329	0.137	9.38	0.58	185.00	0.200	14.35	39.12	1.85	273.80	13.80	175.84	67.33	8.52	1492.66	1.30	20.587	0.250	31.83	9.96	166.60	4.12
2038 Jun	Mean	2692.78	3086.95	0.19	0.16	4.34	0.89	1.00	0.70	0.15	798.00	1.44	14.32	31.15	8.04	10.24	3.35	0.167	0.124	5.08	13.99	278.27	0.169	0.070	5.74	0.36	93.26	0.123	7.25	24.06	0.99	167.41	6.91	90.39	41.21	5.22	815.53	0.80	12.613	0.142	18.39	5.97	91.95	2.52
2038 Jul	Mean	180.83	207.77	0.02	0.01	0.62	0.07	0.11	0.09	0.01	53.68	0.27	0.98	7.43	0.65	1.25	0.23	0.013	0.009	0.34	0.96	18.78	0.033	0.016	0.39	0.02	20.70	0.008	1.73	1.53	0.17	11.48	1.73	19.91	2.79	0.35	134.72	0.05	0.844	0.014	2.12	0.50	8.13	0.17
2038 Aug	Mean	95.08	109.57	0.02	0.01	0.55	0.04	0.09	0.08	0.01	28.28	0.26	0.52	7.59	0.42	1.03	0.12	0.007	0.005	0.18	0.52	9.94	0.032	0.016	0.20	0.01	20.87	0.004	1.78	0.75	0.16	6.20	1.77	20.12	1.48	0.18	126.04	0.03	0.441	0.011	1.72	0.33	5.58	0.09
2038 Sep	Mean	98.08	113.08	0.02	0.01	0.61	0.05	0.10	0.09	0.01	29.19	0.29	0.54	8.56	0.45	1.15	0.13	0.008	0.005	0.19	0.54	10.27	0.036	0.018	0.21	0.01	23.54	0.004	2.01	0.76	0.18	6.43	1.99	22.64	1.53	0.19	140.77	0.03	0.455	0.012	1.89	0.36	6.24	0.09
2038 Oct	Mean	126.19	145.37	0.03	0.01	0.70	0.06	0.12	0.10	0.01	37.53	0.32	0.69	9.61	0.55	1.32	0.16	0.010	0.006	0.24	0.69	13.19	0.040	0.020	0.27	0.02	26.47	0.006	2.26	1.00	0.21	8.20	2.23	25.53	1.97	0.24	160.30	0.04	0.586	0.014	2.21	0.43	7.33	0.12
2038 Nov	Mean	96.44	111.29	0.03	0.01	0.67	0.05	0.11	0.10	0.01	28.72	0.32	0.54	9.68	0.47	1.27	0.12	0.009	0.005	0.19	0.54	10.12	0.040	0.020	0.21	0.01	26.64	0.004	2.28	0.73	0.21	6.37	2.24	25.61	1.51	0.18	157.18	0.03	0.447	0.013	2.07	0.38	6.89	0.09
2038 Dec	Mean	97.97	113.25	0.03	0.01	0.83	0.05	0.13	0.12	0.01	29.21	0.41	0.55	12.20	0.52	1.56	0.13	0.011	0.005	0.19	0.56	10.32	0.050	0.025	0.21	0.01	33.56	0.004	2.86	0.70	0.26	6.57	2.81	32.12	1.55	0.19	194.47	0.03	0.452	0.015	2.48	0.43	8.50	0.09
2039 Jan	Mean	96.66	111.90	0.03	0.01	0.93	0.05	0.14	0.13	0.01	28.85	0.46	0.55	13.93	0.55	1.75	0.13	0.012	0.005	0.19	0.56	10.21	0.057	0.029	0.21	0.01	38.28	0.004	3.26	0.66	0.29	6.56	3.21	36.53	1.53	0.18	219.62	0.03	0.445	0.017	2.76	0.46	9.61	0.09
2039 Feb	Mean	94.27	109.20	0.04	0.01	0.95	0.05	0.15	0.14	0.00	28.15	0.47	0.54	14.28	0.55	1.79	0.12	0.012	0.005	0.19	0.55	9.98	0.059	0.030	0.20	0.01	39.24	0.004	3.34	0.64	0.30	6.43	3.29	37.38	1.50	0.18	224.43	0.03	0.434	0.018	2.80	0.46	9.83	0.09
2039 Mar	Mean	91.15	105.59	0.03	0.01	0.91	0.05	0.14	0.13	0.00	27.22	0.46	0.52	13.72	0.54	1.72	0.12	0.012	0.005	0.18	0.53	9.65	0.057	0.028	0.20	0.01	37.68	0.004	3.20	0.61	0.29	6.22	3.17	35.85	1.45	0.17	215.62	0.03	0.419	0.017	2.70	0.44	9.47	0.08
2039 Apr	Mean	207.52	238.78	0.04	0.02	0.95	0.09	0.16	0.14	0.01	61.66	0.43	1.13	12.54	0.83	1.86	0.26	0.016	0.010	0.40	1.12	21.63	0.053	0.026	0.44	0.03	34.70	0.009	2.93	1.69	0.28	13.35	2.91	33.30	3.22	0.40	214.34	0.06	0.966	0.020	3.09	0.65	11.21	0.19
2039 May	Mean	4131.03	4737.31	0.34	0.26	7.75	1.40	1.68	1.24	0.23	1224.52	2.81	22.02	65.77	12.71	17.84	5.15	0.271	0.192	7.81	21.54	427.23	0.335	0.144	8.81	0.55	192.27	0.188	15.17	36.62	1.88	257.62	14.77	183.92	63.30	8.00	1513.32	1.22	19.338	0.238	31.12	9.50	154.12	3.87
2039 Jun	Mean	2678.23	3070.34	0.19	0.16	4.35	0.89	1.00	0.69	0.15	793.70	1.44	14.24	31.32	8.00	10.16	3.33	0.163	0.124	5.06	13.92	276.78	0.168	0.071	5.71	0.36	93.44	0.122	7.30	23.92	0.99	166.53	6.99	90.91	40.99	5.19	817.80	0.79	12.544	0.140	18.36	5.95	89.92	2.51
2039 Jul	Mean	180.49	207.43	0.03	0.01	0.65	0.07	0.12	0.09	0.01	53.58	0.28	0.98	7.87	0.66	1.28	0.23	0.012	0.009	0.34	0.96	18.76	0.034	0.017	0.39	0.02	21.86	0.008	1.84	1.52	0.18	11.48	1.83	21.09	2.79	0.35	141.56	0.05	0.842	0.014	2.19	0.51	7.98	0.17
2039 Aug	Mean	95.26	109.76	0.02	0.01	0.54	0.04	0.09	0.08	0.01	28.33	0.25	0.52	7.42	0.42	1.02	0.12	0.007	0.005	0.18	0.52	9.96	0.031	0.016	0.20	0.01	20.41	0.004	1.74	0.75	0.16	6.21	1.73	19.65	1.49	0.18	123.62	0.03	0.442	0.010	1.69	0.33	5.51	0.09
2039 Sep	Mean	93.80	108.15	0.02	0.01																																							

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2041 Jan	Mean	97.31	112.65	0.03	0.01	0.91	0.05	0.14	0.13	0.01	29.04	0.45	0.55	13.34	0.55	1.72	0.13	0.012	0.005	0.19	0.56	10.28	0.056	0.028	0.21	0.02	36.51	0.004	3.06	0.67	0.28	6.61	3.14	34.45	1.54	0.18	210.60	0.03	0.448	0.017	2.67	0.45	9.41	0.09
2041 Feb	Mean	94.90	109.93	0.03	0.01	0.93	0.05	0.14	0.13	0.00	28.34	0.46	0.54	13.66	0.55	1.75	0.13	0.012	0.005	0.19	0.55	10.04	0.058	0.028	0.20	0.01	37.35	0.004	3.11	0.64	0.29	6.48	3.22	35.14	1.51	0.18	214.77	0.03	0.437	0.017	2.71	0.45	9.63	0.09
2041 Mar	Mean	91.80	106.34	0.03	0.01	0.89	0.05	0.14	0.13	0.00	27.41	0.44	0.52	13.10	0.53	1.69	0.12	0.011	0.005	0.18	0.53	9.71	0.055	0.027	0.20	0.01	35.77	0.004	2.97	0.62	0.28	6.27	3.10	33.57	1.46	0.17	205.94	0.03	0.422	0.017	2.60	0.44	9.28	0.08
2041 Apr	Mean	249.43	287.05	0.04	0.02	1.15	0.10	0.20	0.17	0.01	74.13	0.53	1.36	14.78	1.00	2.31	0.32	0.022	0.012	0.48	1.35	26.01	0.066	0.031	0.53	0.04	40.80	0.011	3.32	2.03	0.34	16.07	3.49	38.13	3.87	0.48	250.81	0.07	1.161	0.025	3.65	0.79	15.12	0.23
2041 May	Mean	4348.91	4986.66	0.34	0.28	7.68	1.46	1.70	1.23	0.24	1289.01	2.71	23.16	59.97	13.22	18.06	5.42	0.286	0.202	8.22	22.65	449.66	0.324	0.133	9.28	0.58	176.41	0.198	13.33	38.65	1.83	270.96	13.72	165.66	66.61	8.42	1449.41	1.29	20.362	0.245	31.24	9.86	161.39	4.07
2041 Jun	Mean	2132.27	2444.51	0.15	0.13	3.45	0.71	0.79	0.54	0.12	631.92	1.12	11.34	23.83	6.37	8.02	2.65	0.128	0.099	4.03	11.09	220.37	0.132	0.054	4.55	0.28	70.79	0.097	5.38	19.03	0.78	132.62	5.50	68.11	32.64	4.13	634.41	0.63	9.987	0.110	14.45	4.73	70.35	2.00
2041 Jul	Mean	110.12	126.67	0.02	0.01	0.45	0.04	0.08	0.06	0.01	32.71	0.19	0.60	5.51	0.42	0.86	0.14	0.007	0.005	0.21	0.59	11.47	0.024	0.012	0.24	0.02	15.07	0.005	1.24	0.91	0.13	7.06	1.34	14.37	1.71	0.21	97.25	0.03	0.513	0.009	1.46	0.33	4.67	0.10
2041 Aug	Mean	102.01	117.52	0.02	0.01	0.54	0.04	0.09	0.07	0.01	30.34	0.24	0.56	7.00	0.43	1.02	0.13	0.008	0.005	0.20	0.56	10.66	0.030	0.015	0.22	0.01	19.08	0.005	1.56	0.81	0.16	6.63	1.70	17.97	1.59	0.20	117.83	0.03	0.474	0.011	1.66	0.34	5.53	0.09
2041 Sep	Mean	133.66	153.95	0.03	0.01	0.69	0.06	0.11	0.10	0.01	39.75	0.31	0.73	8.89	0.56	1.34	0.17	0.011	0.007	0.26	0.73	13.96	0.039	0.019	0.29	0.02	24.31	0.006	1.96	1.06	0.20	8.68	2.15	22.62	2.08	0.26	149.14	0.04	0.621	0.014	2.12	0.44	8.02	0.12
2041 Oct	Mean	121.71	140.25	0.03	0.01	0.67	0.05	0.11	0.09	0.01	36.20	0.30	0.67	8.74	0.52	1.26	0.16	0.009	0.006	0.23	0.67	12.73	0.038	0.019	0.26	0.02	23.81	0.006	1.95	0.96	0.20	7.93	2.12	22.36	1.90	0.23	146.10	0.04	0.565	0.013	2.05	0.42	6.91	0.11
2041 Nov	Mean	97.27	112.24	0.02	0.01	0.64	0.05	0.10	0.09	0.01	28.96	0.30	0.54	8.60	0.45	1.20	0.13	0.008	0.005	0.19	0.54	10.20	0.037	0.018	0.21	0.01	23.40	0.004	1.91	0.74	0.19	6.42	2.09	21.90	1.53	0.19	140.53	0.03	0.451	0.012	1.90	0.37	6.48	0.09
2041 Dec	Mean	99.08	114.54	0.03	0.01	0.79	0.05	0.12	0.11	0.01	29.54	0.38	0.56	10.97	0.51	1.48	0.13	0.010	0.005	0.19	0.56	10.44	0.047	0.023	0.21	0.02	29.83	0.004	2.44	0.71	0.24	6.64	2.65	27.77	1.56	0.19	175.41	0.03	0.458	0.015	2.29	0.42	8.08	0.09
2042 Jan	Mean	97.97	113.41	0.03	0.01	0.89	0.05	0.14	0.12	0.01	29.24	0.43	0.56	12.59	0.54	1.68	0.13	0.011	0.005	0.19	0.56	10.35	0.054	0.026	0.21	0.02	34.23	0.004	2.79	0.67	0.28	6.65	3.04	31.75	1.56	0.19	198.96	0.03	0.451	0.016	2.55	0.45	9.17	0.09
2042 Feb	Mean	95.57	110.70	0.03	0.01	0.91	0.05	0.14	0.13	0.01	28.54	0.44	0.55	12.94	0.54	1.72	0.13	0.012	0.005	0.19	0.55	10.11	0.056	0.027	0.20	0.01	35.16	0.004	2.86	0.64	0.28	6.52	3.13	32.55	1.52	0.18	203.63	0.03	0.440	0.017	2.60	0.45	9.40	0.09
2042 Mar	Mean	92.35	106.97	0.03	0.01	0.87	0.05	0.13	0.12	0.00	27.57	0.43	0.53	12.42	0.53	1.65	0.12	0.011	0.005	0.18	0.53	9.77	0.054	0.026	0.20	0.01	33.73	0.004	2.73	0.62	0.27	6.30	3.02	31.16	1.47	0.17	195.48	0.03	0.425	0.016	2.50	0.43	9.06	0.08
2042 Apr	Mean	206.73	237.92	0.04	0.02	0.93	0.09	0.16	0.13	0.01	61.44	0.42	1.13	11.70	0.82	1.87	0.26	0.018	0.010	0.40	1.12	21.55	0.053	0.025	0.44	0.03	32.14	0.009	2.56	1.68	0.27	13.32	2.83	29.68	3.21	0.40	199.58	0.06	0.962	0.020	2.94	0.65	12.13	0.19
2042 May	Mean	4180.39	4793.54	0.32	0.26	7.37	1.41	1.63	1.16	0.23	1239.08	2.56	22.27	56.08	12.70	17.19	5.21	0.269	0.194	7.90	21.78	432.25	0.307	0.126	8.92	0.56	164.25	0.191	12.23	37.13	1.74	260.51	13.14	153.46	64.04	8.10	1371.82	1.24	19.572	0.232	29.81	9.47	151.33	3.91
2042 Jun	Mean	2447.86	2806.24	0.17	0.15	3.88	0.81	0.90	0.61	0.14	725.43	1.26	13.02	25.90	7.29	9.20	3.05	0.151	0.113	4.62	12.72	252.97	0.149	0.059	5.22	0.32	77.36	0.112	5.68	21.86	0.87	152.21	6.02	73.11	37.46	4.74	703.07	0.73	11.465	0.128	16.33	5.41	83.10	2.29
2042 Jul	Mean	191.04	219.54	0.03	0.01	0.64	0.07	0.12	0.09	0.01	56.71	0.27	1.03	7.23	0.68	1.29	0.24	0.013	0.009	0.36	1.02	19.85	0.033	0.016	0.41	0.03	19.93	0.009	1.59	1.61	0.18	12.15	1.77	18.63	2.95	0.37	132.64	0.06	0.891	0.015	2.14	0.53	8.31	0.18
2042 Aug	Mean	95.88	110.49	0.02	0.01	0.52	0.04	0.09	0.07	0.01	28.52	0.24	0.53	6.70	0.41	0.99	0.12	0.007	0.005	0.18	0.53	10.03	0.030	0.014	0.20	0.01	18.17	0.004	1.46	0.75	0.16	6.26	1.66	16.90	1.50	0.18	112.29	0.03	0.445	0.010	1.58	0.33	5.31	0.09
2042 Sep	Mean	94.48	108.95	0.02	0.01	0.56	0.04	0.09	0.07	0.01	28.12	0.26	0.52	7.27	0.42	1.05	0.12	0.008	0.005	0.18	0.52	9.90	0.032	0.015	0.20	0.01	19.70	0.004	1.58	0.73	0.17	6.20	1.80	18.27	1.48	0.18	120.37	0.03	0.438	0.011	1.67	0.34	5.68	0.09
2042 Oct	Mean	112.74	129.93	0.02	0.01	0.62	0.05	0.10	0.08	0.01	33.54	0.28	0.62	8.01	0.49	1.18	0.14	0.009	0.006	0.22	0.62	11.79	0.035	0.017	0.24	0.02	21.75	0.005	1.75	0.88	0.19	7.36	1.98	20.24	1.76	0.22	133.93	0.03	0.523	0.012	1.88	0.39	6.39	0.10
2042 Nov	Mean	97.51	112.52	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.03	0.29	0.54	8.29	0.45	1.18	0.13	0.008	0.005	0.19	0.54	10.23	0.036	0.018	0.21	0.01	22.48	0.004	1.81	0.74	0.19	6.43	2.04	20.85	1.53	0.19	135.77	0.03	0.452	0.012	1.85	0.36	6.35	0.09
2042 Dec	Mean	99.40	114.90	0.03	0.01	0.77	0.05	0.12	0.10	0.01	29.63	0.37	0.56	10.59	0.51	1.46	0.13	0.010	0.005	0.19	0.56	10.47	0.046	0.022	0.21	0.02	28.71	0.004	2.31	0.72	0.24	6.66	2.60	26.51	1.57	0.19	169.65	0.03	0.459	0.014	2.24	0.41	7.92	0.09
2043 Jan	Mean	98.31	113.81	0.03	0.01	0.87	0.05	0.14	0.12	0.01	29.34	0.42	0.56	12.25	0.54	1.65	0.13	0.011	0.005	0.19	0.57	10.39	0.054	0.026	0.21	0.02	33.21	0.004	2.67	0.68	0.27	6.67	3.00	30.58	1.56	0.19	193.74	0.03	0.453	0.016	2.50	0.44	9.05	0.09
2043 Feb	Mean	95.89	111.07	0.03	0.01	0.90	0.05	0.14	0.12	0.01	28.63	0.44	0.55	12.65	0.54	1.70	0.13	0.011	0.005	0.19	0.55	10.15	0.055	0.027	0.21	0.01	34.29	0.004	2.76	0.65	0.28	6.54	3.10	31.52	1.53	0.18	199.19	0.03	0.441	0.017	2.55	0.45	9.31	0.09
2043 Mar	Mean	92.65	107.33	0.03																																								

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	169.68	194.99	0.02	0.01	0.56	0.06	0.10	0.08	0.01	50.37	0.23	0.92	6.19	0.61	1.12	0.21	0.011	0.008	0.32	0.91	17.63	0.029	0.013	0.36	0.02	16.96	0.008	1.33	1.43	0.16	10.79	1.55	15.73	2.62	0.33	114.38	0.05	0.791	0.013	1.87	0.47	7.07	0.16
2044 Aug	Mean	96.17	110.81	0.02	0.01	0.51	0.04	0.08	0.07	0.01	28.61	0.23	0.53	6.36	0.41	0.96	0.12	0.007	0.005	0.19	0.53	10.06	0.029	0.014	0.21	0.01	17.19	0.004	1.36	0.76	0.15	6.27	1.61	15.84	1.50	0.18	107.20	0.03	0.447	0.010	1.53	0.32	5.16	0.09
2044 Sep	Mean	94.78	109.29	0.02	0.01	0.55	0.04	0.09	0.07	0.01	28.21	0.25	0.52	7.00	0.42	1.04	0.12	0.007	0.005	0.18	0.52	9.93	0.032	0.015	0.20	0.01	18.91	0.004	1.49	0.73	0.16	6.21	1.76	17.36	1.48	0.18	116.31	0.03	0.440	0.011	1.63	0.33	5.59	0.09
2044 Oct	Mean	97.18	112.05	0.02	0.01	0.56	0.04	0.09	0.07	0.01	28.92	0.25	0.54	7.14	0.43	1.06	0.13	0.008	0.005	0.19	0.54	10.18	0.032	0.015	0.21	0.01	19.28	0.004	1.53	0.75	0.17	6.37	1.79	17.72	1.52	0.19	118.60	0.03	0.451	0.011	1.66	0.34	5.69	0.09
2044 Nov	Mean	97.90	112.96	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.15	0.28	0.54	8.02	0.45	1.16	0.13	0.008	0.005	0.19	0.54	10.27	0.036	0.017	0.21	0.01	21.67	0.004	1.72	0.74	0.19	6.46	2.01	19.89	1.54	0.19	131.63	0.03	0.454	0.012	1.81	0.36	6.27	0.09
2044 Dec	Mean	99.79	115.35	0.03	0.01	0.76	0.05	0.12	0.10	0.01	29.75	0.36	0.56	10.31	0.51	1.44	0.13	0.010	0.005	0.19	0.57	10.51	0.046	0.022	0.21	0.02	27.84	0.005	2.20	0.72	0.24	6.69	2.57	25.43	1.58	0.19	165.24	0.03	0.461	0.014	2.19	0.41	7.86	0.09
2045 Jan	Mean	98.65	114.19	0.03	0.01	0.86	0.05	0.13	0.12	0.01	29.44	0.42	0.56	11.88	0.54	1.64	0.13	0.011	0.005	0.19	0.57	10.42	0.053	0.025	0.21	0.02	32.06	0.004	2.53	0.68	0.27	6.70	2.96	29.19	1.57	0.19	187.88	0.03	0.454	0.016	2.44	0.44	8.94	0.09
2045 Feb	Mean	96.26	111.50	0.03	0.01	0.89	0.05	0.14	0.12	0.01	28.74	0.43	0.55	12.24	0.54	1.68	0.13	0.011	0.005	0.19	0.56	10.19	0.055	0.026	0.21	0.02	33.04	0.004	2.61	0.65	0.28	6.57	3.05	30.03	1.53	0.18	192.82	0.03	0.443	0.016	2.49	0.44	9.18	0.09
2045 Mar	Mean	93.00	107.73	0.03	0.01	0.85	0.05	0.13	0.11	0.00	27.77	0.41	0.53	11.79	0.52	1.62	0.12	0.011	0.005	0.18	0.54	9.84	0.053	0.025	0.20	0.01	31.81	0.004	2.51	0.63	0.27	6.35	2.94	28.87	1.48	0.18	185.71	0.03	0.428	0.016	2.40	0.43	8.86	0.09
2045 Apr	Mean	378.33	434.76	0.05	0.03	1.25	0.14	0.23	0.18	0.02	112.31	0.53	2.05	13.90	1.35	2.61	0.48	0.029	0.018	0.72	2.02	39.31	0.067	0.030	0.81	0.05	38.35	0.017	2.94	3.19	0.35	24.05	3.44	34.87	5.84	0.73	253.67	0.11	1.765	0.030	4.15	1.04	18.50	0.35
2045 May	Mean	4735.29	5429.81	0.36	0.30	8.24	1.59	1.84	1.30	0.26	1403.55	2.86	25.22	60.64	14.36	19.50	5.90	0.312	0.220	8.95	24.67	489.63	0.345	0.136	10.10	0.63	177.87	0.216	12.74	42.06	1.95	295.08	14.43	162.63	72.54	9.17	1503.21	1.40	22.170	0.265	33.27	10.70	175.84	4.43
2045 Jun	Mean	2241.06	2569.26	0.16	0.13	3.57	0.74	0.82	0.55	0.12	664.16	1.14	11.92	23.21	6.67	8.32	2.79	0.134	0.104	4.23	11.65	231.62	0.135	0.054	4.78	0.30	68.78	0.102	4.99	20.00	0.80	139.40	5.58	64.92	34.30	4.34	638.39	0.66	10.496	0.115	14.90	4.95	73.10	2.10
2045 Jul	Mean	124.05	142.65	0.02	0.01	0.47	0.05	0.08	0.06	0.01	36.84	0.19	0.67	5.25	0.46	0.89	0.16	0.008	0.006	0.24	0.67	12.91	0.024	0.011	0.26	0.02	14.22	0.006	1.11	1.03	0.13	7.94	1.34	13.16	1.92	0.24	94.71	0.04	0.578	0.010	1.49	0.36	5.05	0.12
2045 Aug	Mean	96.47	111.16	0.02	0.01	0.50	0.04	0.08	0.07	0.01	28.69	0.22	0.53	6.15	0.41	0.95	0.12	0.007	0.005	0.19	0.53	10.09	0.028	0.013	0.21	0.01	16.55	0.004	1.29	0.76	0.15	6.29	1.57	15.12	1.51	0.18	103.92	0.03	0.448	0.010	1.50	0.32	5.08	0.09
2045 Sep	Mean	105.37	121.45	0.02	0.01	0.57	0.05	0.09	0.07	0.01	31.35	0.26	0.58	7.07	0.45	1.08	0.14	0.008	0.005	0.20	0.58	11.02	0.032	0.015	0.23	0.02	19.03	0.005	1.48	0.82	0.17	6.88	1.81	17.31	1.65	0.20	118.49	0.03	0.489	0.011	1.69	0.36	5.90	0.10
2045 Oct	Mean	119.23	137.36	0.02	0.01	0.60	0.05	0.10	0.08	0.01	35.46	0.27	0.66	7.38	0.50	1.16	0.15	0.009	0.006	0.23	0.65	12.46	0.034	0.016	0.25	0.02	19.93	0.005	1.54	0.94	0.18	7.75	1.88	18.10	1.86	0.23	124.70	0.04	0.554	0.012	1.81	0.39	6.63	0.11
2045 Nov	Mean	98.13	113.24	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.22	0.28	0.55	7.91	0.45	1.17	0.13	0.008	0.005	0.19	0.55	10.29	0.036	0.017	0.21	0.01	21.28	0.004	1.66	0.74	0.19	6.48	2.01	19.31	1.54	0.19	129.76	0.03	0.454	0.012	1.80	0.36	6.29	0.09
2045 Dec	Mean	100.01	115.61	0.03	0.01	0.76	0.05	0.12	0.10	0.01	29.82	0.36	0.56	10.07	0.50	1.44	0.13	0.010	0.005	0.19	0.57	10.53	0.046	0.021	0.21	0.02	27.08	0.005	2.11	0.72	0.23	6.71	2.55	24.46	1.58	0.19	161.42	0.03	0.462	0.014	2.16	0.41	7.81	0.09
2046 Jan	Mean	98.97	114.57	0.03	0.01	0.86	0.05	0.13	0.11	0.01	29.54	0.41	0.56	11.56	0.54	1.62	0.13	0.011	0.006	0.19	0.57	10.46	0.052	0.024	0.21	0.02	31.08	0.004	2.41	0.68	0.27	6.72	2.92	27.99	1.57	0.19	182.89	0.03	0.456	0.016	2.40	0.44	8.85	0.09
2046 Feb	Mean	96.56	111.86	0.03	0.01	0.88	0.05	0.14	0.12	0.01	28.83	0.42	0.55	11.89	0.54	1.66	0.13	0.011	0.005	0.19	0.56	10.22	0.054	0.025	0.21	0.02	31.96	0.004	2.48	0.65	0.27	6.59	3.01	28.74	1.54	0.18	187.30	0.03	0.444	0.016	2.44	0.44	9.07	0.09
2046 Mar	Mean	93.29	108.07	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.86	0.40	0.53	11.43	0.52	1.60	0.12	0.011	0.005	0.18	0.54	9.87	0.052	0.024	0.20	0.01	30.70	0.004	2.38	0.63	0.26	6.37	2.90	27.56	1.48	0.18	180.03	0.03	0.429	0.016	2.35	0.42	8.74	0.09
2046 Apr	Mean	256.85	295.45	0.04	0.02	1.03	0.10	0.18	0.14	0.01	76.30	0.45	1.40	11.90	0.98	2.07	0.33	0.020	0.013	0.49	1.38	26.75	0.057	0.026	0.55	0.04	32.43	0.012	2.47	2.11	0.30	16.48	3.01	29.23	3.98	0.49	208.42	0.08	1.196	0.023	3.23	0.76	13.58	0.24
2046 May	Mean	4625.89	5304.42	0.35	0.29	8.01	1.55	1.79	1.24	0.26	1371.13	2.73	24.64	57.60	14.01	18.80	5.76	0.298	0.215	8.74	24.11	478.33	0.330	0.131	9.87	0.62	168.33	0.211	11.93	41.08	1.88	288.29	13.97	153.68	70.86	8.96	1447.35	1.37	21.658	0.255	32.28	10.44	166.92	4.33
2046 Jun	Mean	2542.01	2914.23	0.18	0.15	4.00	0.84	0.93	0.61	0.14	753.34	1.25	13.52	25.11	7.55	9.30	3.16	0.150	0.117	4.80	13.21	262.72	0.148	0.059	5.42	0.34	74.45	0.116	5.32	22.69	0.89	158.10	6.12	70.05	38.91	4.93	706.40	0.75	11.906	0.129	16.71	5.60	81.66	2.38
2046 Jul	Mean	167.90	192.96	0.02	0.01	0.55	0.06	0.10	0.07	0.01	49.85	0.22	0.91	5.84	0.60	1.09	0.21	0.011	0.008	0.32	0.90	17.45	0.028	0.013	0.36	0.02	15.89	0.008	1.21	1.41	0.15	10.68	1.51	14.53	2.59	0.32	108.94	0.05	0.783	0.012	1.80	0.46	6.74	0.16
2046 Aug	Mean	98.37	113.35	0.02	0.01	0.51	0.04	0.08	0.07	0.01	29.26	0.22	0.54	6.12	0.41	0.96	0.13	0.007	0.005	0.19	0.54	10.29	0.028	0.013	0.21	0.01	16.43	0.004	1.26	0.77	0.15	6.41	1.59	14.84	1.53	0.19	103.65	0.03	0.457	0.010	1.51	0.33	5.16	0.09
2046 Sep	Mean	124.83	143.78	0.02	0.0																																							

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	99.41	115.08	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.67	0.40	0.56	11.10	0.53	1.59	0.13	0.011	0.006	0.19	0.57	10.50	0.051	0.024	0.21	0.02	29.73	0.004	2.27	0.68	0.26	6.74	2.86	26.48	1.58	0.19	175.98	0.03	0.458	0.016	2.33	0.43	8.67	0.09
2048 Feb	Mean	96.94	112.29	0.03	0.01	0.86	0.05	0.13	0.11	0.01	28.95	0.41	0.55	11.52	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.26	0.053	0.024	0.21	0.02	30.86	0.004	2.35	0.65	0.27	6.61	2.96	27.46	1.54	0.18	181.70	0.03	0.446	0.016	2.38	0.44	8.95	0.09
2048 Mar	Mean	93.58	108.40	0.03	0.01	0.83	0.05	0.13	0.11	0.00	27.94	0.40	0.53	11.13	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.90	0.051	0.024	0.20	0.01	29.81	0.004	2.27	0.63	0.26	6.39	2.86	26.51	1.49	0.18	175.51	0.03	0.431	0.016	2.30	0.42	8.65	0.09
2048 Apr	Mean	248.04	285.36	0.04	0.02	1.01	0.10	0.18	0.14	0.01	73.70	0.44	1.35	11.71	0.95	2.06	0.32	0.020	0.012	0.47	1.34	25.84	0.056	0.025	0.53	0.03	31.88	0.011	2.39	2.03	0.29	15.94	2.98	28.43	3.85	0.48	203.92	0.07	1.155	0.023	3.16	0.74	13.69	0.23
2048 May	Mean	4588.74	5261.73	0.35	0.29	7.85	1.54	1.76	1.21	0.25	1360.11	2.65	24.44	55.16	13.86	18.40	5.72	0.292	0.213	8.67	23.91	474.46	0.320	0.126	9.79	0.61	161.25	0.209	11.34	40.77	1.83	285.93	13.50	147.04	70.29	8.89	1407.82	1.36	21.484	0.250	31.71	10.32	162.99	4.30
2048 Jun	Mean	2593.71	2973.47	0.18	0.15	4.04	0.86	0.94	0.62	0.14	768.66	1.27	13.79	24.99	7.69	9.53	3.23	0.156	0.120	4.90	13.48	268.05	0.151	0.059	5.53	0.34	74.37	0.118	5.20	23.16	0.90	161.29	6.10	69.12	39.70	5.03	708.74	0.77	12.148	0.133	16.93	5.70	85.30	2.43
2048 Jul	Mean	110.67	127.29	0.02	0.01	0.43	0.04	0.08	0.05	0.01	32.88	0.18	0.60	4.69	0.41	0.81	0.14	0.007	0.005	0.21	0.60	11.52	0.022	0.010	0.24	0.02	12.61	0.005	0.96	0.91	0.12	7.09	1.23	11.50	1.72	0.21	84.41	0.03	0.515	0.009	1.33	0.32	4.47	0.10
2048 Aug	Mean	105.73	121.80	0.02	0.01	0.52	0.05	0.09	0.07	0.01	31.44	0.23	0.58	6.21	0.44	0.99	0.14	0.007	0.005	0.20	0.58	11.05	0.029	0.013	0.23	0.02	16.64	0.005	1.26	0.84	0.15	6.88	1.63	14.98	1.65	0.20	105.87	0.03	0.491	0.010	1.56	0.34	5.35	0.10
2048 Sep	Mean	129.24	148.85	0.02	0.01	0.62	0.05	0.10	0.08	0.01	38.43	0.27	0.71	7.26	0.53	1.20	0.17	0.010	0.007	0.25	0.71	13.50	0.035	0.016	0.28	0.02	19.52	0.006	1.46	1.03	0.18	8.38	1.89	17.40	2.01	0.25	123.80	0.04	0.601	0.013	1.84	0.41	7.06	0.12
2048 Oct	Mean	116.66	134.43	0.02	0.01	0.60	0.05	0.10	0.08	0.01	34.70	0.26	0.64	7.17	0.49	1.13	0.15	0.008	0.006	0.22	0.64	12.20	0.033	0.016	0.25	0.02	19.21	0.005	1.46	0.92	0.18	7.60	1.87	17.28	1.82	0.22	121.38	0.04	0.542	0.012	1.77	0.39	6.14	0.11
2048 Nov	Mean	129.69	149.46	0.03	0.01	0.68	0.06	0.11	0.09	0.01	38.58	0.30	0.72	8.30	0.55	1.31	0.17	0.010	0.007	0.25	0.71	13.57	0.039	0.018	0.28	0.02	22.29	0.006	1.69	1.01	0.20	8.46	2.15	20.01	2.02	0.25	139.39	0.04	0.602	0.014	2.02	0.44	7.40	0.12
2048 Dec	Mean	100.38	116.04	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.93	0.35	0.57	9.72	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.57	0.045	0.021	0.21	0.02	26.03	0.005	1.98	0.72	0.23	6.73	2.51	23.24	1.59	0.19	156.08	0.03	0.464	0.014	2.10	0.41	7.70	0.09
2049 Jan	Mean	99.29	114.94	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.63	0.40	0.56	11.21	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.49	0.052	0.024	0.21	0.02	30.02	0.004	2.29	0.68	0.26	6.74	2.88	26.73	1.58	0.19	177.48	0.03	0.457	0.016	2.34	0.44	8.74	0.09
2049 Feb	Mean	96.90	112.24	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.93	0.41	0.55	11.56	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.25	0.053	0.025	0.21	0.02	30.96	0.004	2.36	0.65	0.27	6.61	2.97	27.56	1.54	0.18	182.24	0.03	0.446	0.016	2.39	0.44	8.97	0.09
2049 Mar	Mean	93.57	108.39	0.03	0.01	0.83	0.05	0.13	0.11	0.00	27.94	0.40	0.53	11.14	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.90	0.051	0.024	0.20	0.01	29.83	0.004	2.27	0.63	0.26	6.38	2.86	26.54	1.49	0.18	175.62	0.03	0.431	0.016	2.30	0.42	8.65	0.09
2049 Apr	Mean	289.27	332.66	0.04	0.02	1.09	0.11	0.19	0.15	0.02	85.92	0.47	1.57	12.39	1.08	2.23	0.37	0.023	0.014	0.55	1.55	30.11	0.060	0.027	0.62	0.04	33.82	0.013	2.54	2.39	0.31	18.52	3.15	30.27	4.48	0.56	219.52	0.09	1.348	0.025	3.47	0.84	15.06	0.27
2049 May	Mean	4499.67	5159.21	0.33	0.29	7.48	1.50	1.70	1.18	0.25	1333.63	2.53	23.95	51.35	13.53	17.92	5.60	0.294	0.209	8.50	23.42	465.18	0.305	0.117	9.60	0.60	151.53	0.205	10.48	40.04	1.74	280.19	12.40	136.96	68.91	8.72	1334.10	1.33	21.070	0.247	30.59	10.06	164.30	4.21
2049 Jun	Mean	2761.78	3166.25	0.20	0.17	4.37	0.91	1.01	0.68	0.15	818.49	1.40	14.69	27.86	8.22	10.33	3.44	0.169	0.128	5.21	14.36	285.44	0.167	0.065	5.89	0.37	82.67	0.126	5.79	24.64	0.98	171.80	6.77	76.49	42.28	5.35	771.75	0.82	12.934	0.143	18.22	6.10	92.71	2.59
2049 Jul	Mean	99.07	113.97	0.02	0.01	0.40	0.04	0.07	0.05	0.01	29.43	0.16	0.54	4.44	0.38	0.75	0.13	0.006	0.005	0.19	0.53	10.32	0.021	0.010	0.21	0.01	11.92	0.004	0.91	0.81	0.11	6.36	1.17	10.89	1.54	0.19	79.27	0.03	0.461	0.008	1.23	0.29	4.02	0.09
2049 Aug	Mean	96.56	111.27	0.02	0.01	0.50	0.04	0.08	0.06	0.01	28.72	0.22	0.53	5.97	0.41	0.94	0.12	0.007	0.005	0.19	0.53	10.10	0.028	0.013	0.21	0.01	15.98	0.004	1.21	0.76	0.15	6.30	1.56	14.38	1.51	0.18	101.06	0.03	0.448	0.010	1.47	0.32	5.04	0.09
2049 Sep	Mean	95.18	109.75	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.33	0.24	0.53	6.47	0.41	1.00	0.12	0.007	0.005	0.18	0.53	9.97	0.030	0.014	0.20	0.01	17.32	0.004	1.31	0.73	0.16	6.24	1.69	15.54	1.49	0.18	108.12	0.03	0.441	0.010	1.55	0.33	5.39	0.09
2049 Oct	Mean	133.11	153.26	0.02	0.01	0.61	0.06	0.10	0.08	0.01	39.57	0.27	0.73	7.17	0.53	1.18	0.17	0.010	0.007	0.26	0.72	13.89	0.034	0.016	0.28	0.02	19.30	0.006	1.47	1.07	0.18	8.61	1.86	17.40	2.07	0.26	123.52	0.04	0.619	0.012	1.85	0.42	6.71	0.12
2049 Nov	Mean	99.72	115.04	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.69	0.27	0.55	7.43	0.45	1.13	0.13	0.008	0.005	0.19	0.55	10.45	0.034	0.016	0.21	0.01	19.92	0.005	1.52	0.76	0.18	6.57	1.93	17.90	1.56	0.19	122.83	0.03	0.462	0.011	1.73	0.36	6.06	0.09
2049 Dec	Mean	100.44	116.10	0.03	0.01	0.74	0.05	0.12	0.10	0.01	29.94	0.35	0.57	9.61	0.50	1.40	0.13	0.010	0.005	0.20	0.57	10.58	0.044	0.021	0.21	0.02	25.74	0.005	1.97	0.72	0.23	6.73	2.48	23.01	1.59	0.19	154.49	0.03	0.464	0.014	2.09	0.40	7.60	0.09
2050 Jan	Mean	99.44	115.11	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.68	0.40	0.57	11.18	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.51	0.051	0.024	0.21	0.02	29.95	0.004	2.29	0.68	0.26	6.75	2.87	26.70	1.58	0.19	177.10	0.03	0.458	0.016	2.34	0.43	8.71	0.09
2050 Feb	Mean	96.97	112.32	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.95	0.41	0.55	11.57	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.26	0.053	0.025	0.21	0.02	31.00	0.004	2.37	0.65	0.27	6.62	2.97	27.61	1.54	0.18	182.43	0.03	0.446	0.016	2.39	0.44	8.97	0.09
2050 Mar	Mean	93.55	108.36	0.03	0.01																																							

Table A-6
Monthly WQ Report for Scenario A.2.b - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	120.67	138.78	0.02	0.01	0.46	0.05	0.08	0.06	0.01	35.84	0.19	0.66	5.00	0.45	0.87	0.15	0.007	0.006	0.23	0.65	12.56	0.024	0.011	0.26	0.02	13.47	0.005	1.03	1.00	0.13	7.73	1.31	12.34	1.87	0.23	90.56	0.04	0.562	0.009	1.43	0.35	4.77	0.11
2051 Aug	Mean	99.11	114.20	0.02	0.01	0.51	0.04	0.08	0.06	0.01	29.48	0.22	0.55	6.05	0.41	0.95	0.13	0.007	0.005	0.19	0.54	10.36	0.028	0.013	0.21	0.01	16.22	0.004	1.24	0.78	0.15	6.46	1.58	14.62	1.55	0.19	102.68	0.03	0.460	0.010	1.50	0.33	5.13	0.09
2051 Sep	Mean	142.01	163.48	0.02	0.01	0.64	0.06	0.11	0.08	0.01	42.21	0.28	0.78	7.45	0.56	1.25	0.18	0.011	0.007	0.27	0.77	14.82	0.035	0.016	0.30	0.02	20.09	0.006	1.51	1.14	0.19	9.18	1.93	17.98	2.21	0.27	128.28	0.04	0.660	0.013	1.94	0.44	7.50	0.13
2051 Oct	Mean	104.16	120.07	0.02	0.01	0.56	0.05	0.09	0.07	0.01	30.99	0.25	0.58	6.87	0.45	1.06	0.13	0.008	0.005	0.20	0.57	10.90	0.032	0.015	0.22	0.02	18.41	0.005	1.41	0.81	0.17	6.81	1.79	16.60	1.63	0.20	115.32	0.03	0.483	0.011	1.66	0.35	5.72	0.10
2051 Nov	Mean	98.32	113.45	0.02	0.01	0.61	0.05	0.10	0.08	0.01	29.27	0.28	0.55	7.63	0.45	1.15	0.13	0.008	0.005	0.19	0.55	10.31	0.035	0.016	0.21	0.01	20.47	0.004	1.57	0.74	0.18	6.49	1.97	18.40	1.54	0.19	125.59	0.03	0.455	0.012	1.75	0.36	6.18	0.09
2051 Dec	Mean	100.22	115.86	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.88	0.35	0.56	9.81	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.56	0.045	0.021	0.21	0.02	26.31	0.005	2.02	0.72	0.23	6.72	2.52	23.55	1.58	0.19	157.49	0.03	0.463	0.014	2.12	0.41	7.73	0.09
2052 Jan	Mean	99.22	114.86	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.61	0.40	0.56	11.31	0.53	1.61	0.13	0.011	0.006	0.19	0.57	10.48	0.052	0.024	0.21	0.02	30.32	0.004	2.32	0.68	0.26	6.74	2.90	27.09	1.58	0.19	179.05	0.03	0.457	0.016	2.36	0.44	8.77	0.09
2052 Feb	Mean	96.78	112.11	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.90	0.42	0.55	11.67	0.54	1.65	0.13	0.011	0.005	0.19	0.56	10.24	0.053	0.025	0.21	0.02	31.29	0.004	2.40	0.65	0.27	6.60	2.98	27.94	1.54	0.18	183.93	0.03	0.445	0.016	2.40	0.44	9.01	0.09
2052 Mar	Mean	93.52	108.33	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.93	0.40	0.53	11.28	0.52	1.59	0.12	0.011	0.005	0.18	0.54	9.90	0.052	0.024	0.20	0.01	30.25	0.004	2.32	0.63	0.26	6.38	2.89	27.01	1.49	0.18	177.82	0.03	0.430	0.016	2.32	0.42	8.71	0.09
2052 Apr	Mean	192.00	221.15	0.04	0.02	0.95	0.08	0.16	0.13	0.01	57.09	0.43	1.06	11.67	0.80	1.92	0.25	0.018	0.010	0.37	1.05	20.06	0.055	0.025	0.41	0.03	31.69	0.009	2.39	1.52	0.28	12.47	2.96	28.22	2.99	0.37	195.71	0.06	0.892	0.021	2.87	0.63	12.45	0.18
2052 May	Mean	4299.99	4930.45	0.32	0.28	7.28	1.44	1.64	1.15	0.24	1274.49	2.50	22.90	51.40	12.97	17.44	5.36	0.285	0.199	8.12	22.39	444.57	0.302	0.116	9.17	0.57	151.32	0.196	10.52	38.23	1.71	267.85	12.36	136.59	65.86	8.33	1307.56	1.27	20.134	0.239	29.60	9.66	159.94	4.03
2052 Jun	Mean	1950.60	2236.24	0.14	0.11	3.07	0.64	0.71	0.47	0.11	578.08	0.96	10.37	19.28	5.80	7.17	2.43	0.116	0.090	3.68	10.14	201.60	0.114	0.045	4.16	0.26	57.16	0.089	4.06	17.41	0.68	121.32	4.70	53.56	29.86	3.78	541.58	0.58	9.136	0.099	12.82	4.30	63.15	1.83
2052 Jul	Mean	142.85	164.20	0.02	0.01	0.49	0.05	0.09	0.06	0.01	42.42	0.20	0.77	5.24	0.51	0.96	0.18	0.009	0.007	0.27	0.76	14.85	0.025	0.011	0.30	0.02	14.23	0.006	1.08	1.20	0.14	9.10	1.35	12.98	2.21	0.28	96.60	0.04	0.666	0.011	1.58	0.40	5.89	0.13
2052 Aug	Mean	96.40	111.09	0.02	0.01	0.50	0.04	0.08	0.06	0.01	28.68	0.22	0.53	6.06	0.41	0.95	0.12	0.007	0.005	0.19	0.53	10.08	0.028	0.013	0.21	0.01	16.24	0.004	1.24	0.76	0.15	6.29	1.58	14.66	1.50	0.18	102.39	0.03	0.448	0.010	1.49	0.32	5.09	0.09
2052 Sep	Mean	141.05	162.56	0.03	0.01	0.74	0.06	0.12	0.10	0.01	41.96	0.33	0.78	9.03	0.60	1.43	0.18	0.011	0.007	0.27	0.78	14.75	0.042	0.019	0.30	0.02	24.27	0.006	1.84	1.10	0.22	9.21	2.34	21.73	2.20	0.27	151.61	0.04	0.655	0.015	2.20	0.47	8.17	0.13
2052 Oct	Mean	95.21	109.78	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.33	0.24	0.53	6.53	0.41	1.00	0.12	0.007	0.005	0.18	0.53	9.97	0.030	0.014	0.20	0.01	17.52	0.004	1.34	0.74	0.16	6.24	1.69	15.80	1.49	0.18	109.13	0.03	0.442	0.010	1.56	0.33	5.39	0.09
2052 Nov	Mean	133.16	153.52	0.03	0.01	0.74	0.06	0.12	0.10	0.01	39.62	0.34	0.74	9.22	0.58	1.45	0.17	0.012	0.007	0.26	0.73	13.94	0.043	0.020	0.28	0.02	24.87	0.006	1.88	1.03	0.22	8.72	2.36	22.18	2.08	0.25	152.55	0.04	0.618	0.015	2.18	0.46	8.80	0.12
2052 Dec	Mean	100.21	115.84	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.88	0.35	0.56	9.86	0.50	1.43	0.13	0.010	0.005	0.20	0.57	10.56	0.045	0.021	0.21	0.02	26.44	0.005	2.03	0.72	0.23	6.72	2.53	23.71	1.58	0.19	158.15	0.03	0.463	0.014	2.13	0.41	7.74	0.09
2053 Jan	Mean	99.17	114.80	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.60	0.40	0.56	11.36	0.53	1.61	0.13	0.011	0.006	0.19	0.57	10.48	0.052	0.024	0.21	0.02	30.46	0.004	2.34	0.68	0.26	6.73	2.90	27.26	1.57	0.19	179.76	0.03	0.457	0.016	2.37	0.44	8.79	0.09
2053 Feb	Mean	96.71	112.02	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.88	0.42	0.55	11.71	0.54	1.65	0.13	0.011	0.005	0.19	0.56	10.23	0.053	0.025	0.21	0.02	31.42	0.004	2.42	0.65	0.27	6.60	2.99	28.10	1.54	0.18	184.55	0.03	0.445	0.016	2.41	0.44	9.02	0.09
2053 Mar	Mean	93.42	108.21	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.89	0.40	0.53	11.31	0.52	1.59	0.12	0.011	0.005	0.18	0.54	9.88	0.052	0.024	0.20	0.01	30.34	0.004	2.33	0.63	0.26	6.38	2.89	27.12	1.49	0.18	178.20	0.03	0.430	0.016	2.33	0.42	8.71	0.09
2053 Apr	Mean	288.40	331.57	0.04	0.02	1.04	0.11	0.19	0.15	0.02	85.65	0.45	1.56	11.75	1.06	2.17	0.37	0.023	0.014	0.55	1.55	30.00	0.057	0.025	0.62	0.04	32.21	0.013	2.42	2.40	0.30	18.42	2.96	28.82	4.46	0.55	209.53	0.09	1.344	0.025	3.36	0.82	15.18	0.27
2053 May	Mean	5083.48	5828.44	0.37	0.33	8.38	1.69	1.91	1.33	0.28	1506.64	2.83	27.06	57.41	15.26	20.20	6.33	0.335	0.235	9.60	26.46	525.50	0.341	0.130	10.84	0.68	170.02	0.232	11.78	45.27	1.94	316.46	13.74	153.82	77.84	9.85	1497.10	1.51	23.805	0.279	34.44	11.34	186.93	4.76
2053 Jun	Mean	1684.52	1931.19	0.12	0.10	2.66	0.56	0.61	0.41	0.09	499.22	0.83	8.96	16.76	5.01	6.17	2.10	0.099	0.078	3.18	8.76	174.10	0.099	0.039	3.59	0.22	49.63	0.077	3.55	15.03	0.59	104.77	4.09	46.74	25.78	3.26	470.03	0.50	7.889	0.085	11.10	3.71	53.98	1.58
2053 Jul	Mean	98.50	113.35	0.02	0.01	0.41	0.04	0.07	0.05	0.01	29.27	0.17	0.54	4.73	0.38	0.78	0.13	0.006	0.005	0.19	0.53	10.27	0.022	0.010	0.21	0.01	12.72	0.004	0.98	0.80	0.12	6.34	1.23	11.65	1.53	0.19	83.49	0.03	0.458	0.008	1.28	0.30	4.17	0.09
2053 Aug	Mean	105.45	121.50	0.02	0.01	0.54	0.05	0.09	0.07	0.01	31.36	0.24	0.58	6.49	0.44	1.02	0.14	0.008	0.005	0.20	0.58	11.02	0.030	0.014	0.23	0.02	17.43	0.005	1.34	0.83	0.16	6.87	1.68	15.77	1.64	0.20	110.04	0.03	0.490	0.011	1.60	0.35	5.52	0.10
2053 Sep	Mean	135.31	155.83	0.02	0.01	0.65																																						

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2020 Jan	Mean	122.32	146.20	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.37	0.01	0.85	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.88	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.64	0.03	1.62	2.17	0.21	30.55	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.47	149.94	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.32	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.28	0.95	14.23	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.90	0.04	1.77	2.23	0.22	31.68	0.04	0.546	0.003	0.84	0.29	2.33	0.11
2020 Mar	Mean	116.53	139.25	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.59	0.01	0.80	0.08	0.38	0.58	0.18	0.006	0.010	0.26	0.88	13.21	0.000	0.001	0.25	0.03	0.39	0.005	0.10	0.01	0.03	10.12	0.04	1.74	2.07	0.20	29.77	0.04	0.507	0.003	0.78	0.27	2.19	0.10
2020 Apr	Mean	109.39	130.72	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.41	0.01	0.76	0.07	0.36	0.54	0.17	0.006	0.009	0.24	0.83	12.40	0.000	0.001	0.24	0.02	0.38	0.005	0.10	0.00	0.03	9.50	0.03	1.63	1.94	0.19	27.94	0.04	0.476	0.003	0.73	0.25	2.13	0.10
2020 May	Mean	113.22	135.29	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.58	0.01	0.78	0.09	0.37	0.56	0.18	0.006	0.010	0.25	0.86	12.84	0.000	0.001	0.24	0.03	0.44	0.005	0.10	0.01	0.03	9.83	0.04	1.73	2.01	0.20	29.08	0.04	0.492	0.003	0.76	0.26	2.23	0.10
2020 Jun	Mean	114.77	137.13	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.05	0.01	0.79	0.13	0.37	0.57	0.18	0.006	0.010	0.25	0.87	13.01	0.000	0.001	0.25	0.03	0.53	0.005	0.10	0.01	0.03	9.96	0.04	1.91	2.04	0.20	30.02	0.04	0.499	0.003	0.77	0.27	2.20	0.10
2020 Jul	Mean	115.27	137.70	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.20	0.01	0.79	0.18	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.06	0.001	0.001	0.25	0.03	0.65	0.005	0.10	0.01	0.03	9.99	0.05	2.09	2.05	0.20	30.73	0.04	0.502	0.003	0.78	0.27	2.20	0.10
2020 Aug	Mean	115.48	137.93	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.26	0.02	0.79	0.20	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.08	0.001	0.001	0.25	0.03	0.70	0.005	0.10	0.02	0.03	10.00	0.05	2.17	2.05	0.20	31.05	0.04	0.503	0.003	0.79	0.27	2.20	0.10
2020 Sep	Mean	115.20	137.58	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.17	0.02	0.79	0.21	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.05	0.001	0.001	0.25	0.03	0.73	0.005	0.10	0.02	0.03	9.96	0.05	2.21	2.04	0.20	31.10	0.04	0.502	0.003	0.79	0.27	2.18	0.10
2020 Oct	Mean	115.11	137.46	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.14	0.02	0.79	0.24	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.03	0.001	0.001	0.25	0.03	0.81	0.005	0.10	0.02	0.03	9.95	0.05	2.32	2.04	0.20	31.48	0.04	0.501	0.003	0.79	0.27	2.19	0.10
2020 Nov	Mean	117.66	140.50	0.01	0.01	0.14	0.05	0.04	0.02	0.01	35.92	0.02	0.81	0.35	0.38	0.59	0.18	0.006	0.010	0.26	0.89	13.32	0.001	0.001	0.25	0.03	1.10	0.005	0.10	0.02	0.03	10.17	0.06	2.75	2.09	0.21	33.56	0.04	0.512	0.003	0.82	0.28	2.28	0.10
2020 Dec	Mean	123.15	147.02	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.59	0.02	0.85	0.61	0.40	0.62	0.19	0.007	0.011	0.27	0.93	13.93	0.001	0.002	0.27	0.03	1.76	0.005	0.11	0.03	0.04	10.62	0.09	3.76	2.18	0.21	38.29	0.04	0.537	0.004	0.88	0.29	2.42	0.11
2021 Jan	Mean	125.99	150.26	0.01	0.01	0.16	0.05	0.04	0.03	0.01	38.43	0.03	0.86	1.07	0.42	0.65	0.20	0.007	0.011	0.27	0.94	14.22	0.002	0.002	0.27	0.03	2.93	0.005	0.11	0.06	0.04	10.79	0.14	5.47	2.22	0.22	44.87	0.04	0.550	0.004	0.95	0.30	2.56	0.11
2021 Feb	Mean	122.16	145.56	0.01	0.01	0.17	0.05	0.04	0.04	0.01	37.23	0.04	0.83	1.48	0.41	0.64	0.19	0.007	0.010	0.27	0.91	13.77	0.003	0.003	0.26	0.03	3.96	0.005	0.11	0.08	0.04	10.40	0.18	6.90	2.15	0.21	49.18	0.04	0.534	0.004	0.97	0.29	2.57	0.11
2021 Mar	Mean	112.60	134.26	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.34	0.03	0.77	1.03	0.37	0.58	0.17	0.006	0.010	0.24	0.84	12.71	0.002	0.002	0.24	0.03	2.81	0.005	0.10	0.06	0.04	9.62	0.13	5.14	1.99	0.20	40.96	0.04	0.492	0.004	0.86	0.27	2.36	0.10
2021 Apr	Mean	107.55	128.45	0.01	0.01	0.13	0.05	0.04	0.02	0.00	32.84	0.02	0.74	0.41	0.35	0.55	0.17	0.006	0.009	0.24	0.81	12.18	0.001	0.001	0.23	0.02	1.25	0.005	0.09	0.03	0.03	9.31	0.07	2.78	1.91	0.19	31.69	0.04	0.468	0.003	0.76	0.25	2.33	0.09
2021 May	Mean	112.01	133.85	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.21	0.02	0.77	0.33	0.37	0.58	0.18	0.006	0.010	0.25	0.85	12.70	0.001	0.001	0.24	0.03	1.06	0.005	0.10	0.02	0.03	9.73	0.06	2.52	1.99	0.19	31.74	0.04	0.487	0.003	0.78	0.26	2.49	0.10
2021 Jun	Mean	114.03	136.15	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.81	0.02	0.78	0.54	0.37	0.58	0.18	0.006	0.010	0.25	0.86	12.91	0.001	0.002	0.25	0.03	1.57	0.005	0.10	0.03	0.03	9.85	0.08	3.35	2.02	0.20	35.03	0.04	0.497	0.003	0.82	0.27	2.35	0.10
2021 Jul	Mean	114.41	136.51	0.01	0.01	0.15	0.05	0.04	0.02	0.01	34.91	0.03	0.78	0.86	0.38	0.59	0.18	0.006	0.010	0.25	0.86	12.93	0.002	0.002	0.25	0.03	2.37	0.005	0.10	0.04	0.04	9.83	0.11	4.53	2.02	0.20	39.25	0.04	0.499	0.004	0.85	0.27	2.35	0.10
2021 Aug	Mean	114.41	136.46	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.90	0.03	0.78	1.10	0.38	0.60	0.18	0.006	0.010	0.25	0.86	12.92	0.002	0.002	0.25	0.03	2.98	0.005	0.10	0.05	0.04	9.81	0.14	5.42	2.02	0.20	42.45	0.04	0.499	0.004	0.88	0.27	2.38	0.10
2021 Sep	Mean	113.90	135.83	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.74	0.04	0.78	1.32	0.38	0.60	0.18	0.006	0.010	0.25	0.85	12.86	0.003	0.003	0.25	0.03	3.54	0.005	0.10	0.06	0.04	9.75	0.16	6.22	2.01	0.20	45.23	0.04	0.497	0.004	0.90	0.27	2.42	0.10
2021 Oct	Mean	113.61	135.47	0.01	0.01	0.16	0.05	0.04	0.04	0.01	34.65	0.04	0.77	1.63	0.38	0.62	0.18	0.006	0.010	0.25	0.85	12.82	0.003	0.003	0.25	0.03	4.31	0.005	0.10	0.06	0.04	9.72	0.19	7.32	2.00	0.20	49.18	0.04	0.496	0.004	0.94	0.27	2.50	0.10
2021 Nov	Mean	116.04	138.40	0.01	0.01	0.18	0.05	0.04	0.05	0.01	35.39	0.05	0.79	2.18	0.39	0.66	0.18	0.007	0.010	0.25	0.87	13.10	0.004	0.004	0.25	0.03	5.72	0.005	0.11	0.06	0.05	9.94	0.25	9.37	2.05	0.20	57.19	0.04	0.507	0.004	1.02	0.28	2.72	0.10
2021 Dec	Mean	120.89	144.13	0.01	0.01	0.22	0.05	0.05	0.07	0.01	36.86	0.07	0.82	3.40	0.42	0.73	0.19	0.007	0.010	0.26	0.90	13.64	0.006	0.006	0.26	0.03	8.82	0.005	0.11	0.07	0.06	10.33	0.37	13.88	2.13	0.21	74.56	0.04	0.528	0.005	1.20	0.31	3.11	0.11
2022 Jan	Mean	121.87	145.11	0.01	0.01	0.27	0.06	0.06	0.06	0.01	37.13	0.11	0.82	4.70	0.44	0.81	0.19	0.008	0.010	0.26	0.90	13.71	0.010	0.007	0.26	0.03	12.30	0.005	0.12	0.10	0.07	10.32	0.55	11.66	2.14	0.21	72.11	0.04	0.534	0.006	1.27	0.32	3.58	0.11
2022 Feb	Mean	117.14	139.33	0.01	0.01	0.30	0.05	0.06	0.04	0.01	35.66	0.13	0.79	5.44	0.43	0.85	0.18	0.008	0.010	0.25	0.86	13.15	0.012	0.007	0.25	0.03	14.39	0.005	0.12	0.13	0.08	9.84	0.69	6.48	2.05	0.21	58.45	0.04	0.514	0.006	1.22	0.32	3.83	0.10
2022 Mar	Mean	108.61	129.30	0.01	0.01	0.25	0.05	0.05	0.03	0.00	33.08	0.11	0.73	4.21	0.39	0.75	0.17	0.007	0.009	0.																								

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2023 Jul	Mean	108.56	129.32	0.01	0.01	0.31	0.05	0.06	0.04	0.00	33.08	0.14	0.74	7.41	0.41	0.86	0.17	0.008	0.009	0.24	0.80	12.22	0.014	0.010	0.23	0.02	18.97	0.005	0.12	0.08	0.09	9.22	0.77	5.63	1.91	0.19	57.26	0.04	0.475	0.006	1.40	0.31	4.07	0.10
2023 Aug	Mean	107.70	128.20	0.01	0.01	0.35	0.05	0.07	0.05	0.00	32.80	0.17	0.73	8.91	0.42	0.92	0.17	0.008	0.009	0.23	0.79	12.11	0.016	0.012	0.23	0.02	22.76	0.005	0.12	0.10	0.10	9.10	0.92	6.47	1.89	0.19	63.17	0.04	0.472	0.007	1.53	0.32	4.40	0.09
2023 Sep	Mean	106.82	127.10	0.01	0.01	0.37	0.05	0.07	0.05	0.00	32.52	0.19	0.72	9.74	0.43	0.95	0.16	0.008	0.009	0.23	0.78	12.00	0.018	0.013	0.23	0.02	24.84	0.005	0.12	0.11	0.11	9.00	1.00	6.93	1.87	0.19	66.34	0.04	0.468	0.007	1.60	0.32	4.56	0.09
2023 Oct	Mean	106.47	126.67	0.01	0.01	0.37	0.05	0.07	0.05	0.00	32.41	0.19	0.72	10.02	0.43	0.96	0.16	0.008	0.009	0.23	0.78	11.96	0.018	0.013	0.23	0.02	25.56	0.005	0.12	0.11	0.11	8.96	1.03	7.09	1.86	0.19	67.42	0.04	0.467	0.008	1.62	0.32	4.64	0.09
2023 Nov	Mean	108.78	129.47	0.01	0.01	0.38	0.05	0.07	0.05	0.00	33.13	0.19	0.73	9.99	0.44	0.98	0.17	0.008	0.009	0.24	0.80	12.23	0.018	0.013	0.23	0.02	25.50	0.005	0.12	0.10	0.11	9.18	1.03	7.10	1.91	0.19	67.93	0.04	0.477	0.008	1.64	0.33	4.74	0.10
2023 Dec	Mean	113.40	134.90	0.02	0.01	0.43	0.06	0.08	0.06	0.01	34.52	0.23	0.76	12.00	0.47	1.09	0.17	0.009	0.009	0.24	0.83	12.73	0.022	0.016	0.24	0.02	30.59	0.005	0.13	0.12	0.13	9.54	1.23	8.31	1.98	0.20	77.36	0.04	0.497	0.009	1.85	0.36	5.31	0.10
2024 Jan	Mean	113.00	134.19	0.02	0.01	0.52	0.06	0.09	0.07	0.01	34.36	0.29	0.75	15.29	0.49	1.23	0.17	0.010	0.009	0.24	0.82	12.64	0.028	0.019	0.24	0.02	38.92	0.005	0.14	0.16	0.16	9.39	1.56	9.45	1.96	0.20	88.16	0.04	0.497	0.010	2.07	0.38	6.11	0.10
2024 Feb	Mean	105.32	124.90	0.02	0.01	0.53	0.06	0.09	0.07	0.00	31.99	0.30	0.70	15.92	0.47	1.21	0.16	0.009	0.008	0.22	0.75	11.75	0.029	0.018	0.23	0.02	40.50	0.005	0.14	0.18	0.16	8.66	1.62	8.96	1.82	0.19	86.12	0.03	0.465	0.010	1.99	0.37	6.13	0.09
2024 Mar	Mean	102.53	121.92	0.01	0.01	0.38	0.05	0.07	0.05	0.00	31.20	0.20	0.69	10.48	0.42	0.98	0.16	0.008	0.008	0.22	0.75	11.50	0.019	0.012	0.22	0.02	26.76	0.004	0.12	0.12	0.12	8.60	1.07	6.23	1.79	0.18	64.60	0.03	0.450	0.008	1.52	0.32	4.96	0.09
2024 Apr	Mean	99.43	118.69	0.01	0.01	0.23	0.05	0.05	0.03	0.00	30.34	0.10	0.68	4.84	0.36	0.75	0.15	0.008	0.009	0.22	0.75	11.25	0.010	0.006	0.21	0.02	12.56	0.004	0.10	0.06	0.07	8.57	0.50	3.54	1.76	0.17	42.86	0.03	0.433	0.006	1.05	0.27	4.18	0.09
2024 May	Mean	103.90	124.14	0.01	0.01	0.21	0.05	0.05	0.03	0.00	31.73	0.09	0.72	3.82	0.37	0.74	0.16	0.008	0.009	0.23	0.79	11.78	0.008	0.005	0.22	0.02	10.00	0.005	0.10	0.04	0.06	9.01	0.40	3.12	1.85	0.18	40.21	0.03	0.452	0.005	1.00	0.27	4.19	0.09
2024 Jun	Mean	107.53	128.22	0.01	0.01	0.28	0.05	0.06	0.03	0.00	32.79	0.13	0.73	6.30	0.40	0.83	0.17	0.008	0.009	0.23	0.80	12.13	0.012	0.008	0.23	0.02	16.21	0.005	0.11	0.07	0.08	9.19	0.65	4.34	1.90	0.19	50.33	0.04	0.470	0.006	1.22	0.30	4.15	0.09
2024 Jul	Mean	106.38	126.60	0.01	0.01	0.37	0.05	0.07	0.04	0.00	32.39	0.19	0.72	9.68	0.42	0.96	0.16	0.008	0.009	0.23	0.78	11.95	0.018	0.011	0.23	0.02	24.73	0.005	0.12	0.11	0.11	8.97	0.99	5.91	1.86	0.19	62.66	0.04	0.466	0.008	1.48	0.32	4.70	0.09
2024 Aug	Mean	104.95	124.78	0.02	0.01	0.42	0.05	0.07	0.05	0.00	31.94	0.22	0.70	11.71	0.44	1.03	0.16	0.009	0.009	0.23	0.76	11.77	0.021	0.014	0.23	0.02	29.86	0.005	0.12	0.12	0.13	8.79	1.20	6.85	1.83	0.19	69.92	0.03	0.461	0.008	1.64	0.33	5.13	0.09
2024 Sep	Mean	103.72	123.26	0.02	0.01	0.44	0.05	0.08	0.05	0.00	31.55	0.24	0.69	12.66	0.44	1.07	0.16	0.009	0.008	0.22	0.75	11.62	0.023	0.015	0.22	0.02	32.26	0.005	0.13	0.13	0.13	8.66	1.29	7.28	1.81	0.18	73.18	0.03	0.456	0.009	1.71	0.34	5.30	0.09
2024 Oct	Mean	103.27	122.73	0.02	0.01	0.44	0.05	0.08	0.06	0.00	31.42	0.24	0.69	12.76	0.44	1.07	0.16	0.009	0.008	0.22	0.75	11.57	0.023	0.015	0.22	0.02	32.50	0.005	0.13	0.13	0.13	8.63	1.30	7.31	1.80	0.18	73.44	0.03	0.454	0.009	1.71	0.34	5.36	0.09
2024 Nov	Mean	105.55	125.51	0.02	0.01	0.44	0.05	0.08	0.06	0.00	32.12	0.24	0.71	12.72	0.45	1.09	0.16	0.009	0.009	0.23	0.77	11.84	0.023	0.015	0.23	0.02	32.41	0.005	0.13	0.12	0.13	8.85	1.30	7.33	1.84	0.19	73.95	0.03	0.463	0.009	1.72	0.34	5.50	0.09
2024 Dec	Mean	107.66	127.90	0.02	0.01	0.52	0.06	0.09	0.07	0.00	32.74	0.29	0.72	15.49	0.48	1.22	0.16	0.010	0.009	0.23	0.78	12.05	0.028	0.018	0.23	0.02	39.42	0.005	0.14	0.15	0.16	8.97	1.57	8.65	1.87	0.19	84.88	0.04	0.473	0.010	1.96	0.37	6.17	0.09
2025 Jan	Mean	111.15	132.27	0.02	0.01	0.48	0.06	0.08	0.06	0.01	33.85	0.26	0.75	13.75	0.48	1.17	0.17	0.009	0.009	0.24	0.82	12.49	0.025	0.015	0.24	0.02	35.67	0.005	0.14	0.11	0.15	9.37	1.43	7.20	1.95	0.20	77.62	0.04	0.487	0.010	1.78	0.37	5.77	0.10
2025 Feb	Mean	111.84	133.16	0.02	0.01	0.47	0.06	0.08	0.05	0.01	34.07	0.25	0.76	13.12	0.48	1.15	0.17	0.009	0.009	0.24	0.82	12.58	0.024	0.014	0.24	0.02	34.30	0.005	0.14	0.10	0.14	9.46	1.37	6.68	1.96	0.20	74.88	0.04	0.490	0.009	1.71	0.36	5.63	0.10
2025 Mar	Mean	109.41	130.29	0.02	0.01	0.44	0.05	0.08	0.05	0.00	33.33	0.24	0.74	12.23	0.46	1.10	0.17	0.009	0.009	0.24	0.81	12.31	0.023	0.013	0.24	0.02	32.06	0.005	0.13	0.09	0.13	9.27	1.29	6.23	1.92	0.19	70.91	0.04	0.479	0.009	1.62	0.35	5.35	0.10
2025 Apr	Mean	364.52	435.58	0.03	0.03	0.76	0.17	0.16	0.08	0.02	111.33	0.31	2.52	13.88	1.31	2.57	0.57	0.026	0.032	0.80	2.76	41.33	0.028	0.016	0.79	0.08	37.24	0.016	0.36	0.10	0.21	31.65	1.49	10.12	6.48	0.63	139.82	0.12	1.586	0.018	3.42	0.96	12.68	0.32
2025 May	Mean	5527.77	6614.53	0.30	0.41	7.87	2.47	1.98	0.87	0.24	1690.04	2.36	38.44	73.53	18.72	33.61	8.70	0.383	0.487	12.17	42.36	628.62	0.185	0.108	11.94	1.28	210.81	0.240	5.08	0.43	2.07	484.56	8.17	99.74	98.66	9.58	1629.77	1.85	23.981	0.223	41.86	13.50	171.57	4.80
2025 Jun	Mean	2467.20	2951.22	0.13	0.18	3.39	1.10	0.87	0.36	0.11	754.12	0.93	17.12	27.94	8.30	14.50	3.88	0.163	0.217	5.43	18.86	280.36	0.070	0.044	5.33	0.57	80.54	0.107	2.25	0.16	0.87	215.75	3.21	42.70	43.98	4.28	710.09	0.82	10.711	0.094	18.33	5.98	70.96	2.14
2025 Jul	Mean	144.00	171.93	0.01	0.01	0.32	0.07	0.07	0.03	0.01	43.96	0.13	0.99	5.97	0.52	1.00	0.22	0.009	0.012	0.31	1.09	16.30	0.011	0.007	0.31	0.03	15.86	0.006	0.14	0.04	0.09	12.43	0.65	4.20	2.55	0.25	57.09	0.05	0.627	0.007	1.39	0.38	4.51	0.13
2025 Aug	Mean	109.49	130.62	0.01	0.01	0.31	0.05	0.06	0.03	0.00	33.40	0.14	0.75	7.18	0.42	0.87	0.17	0.008	0.009	0.24	0.82	12.37	0.013	0.008	0.24	0.02	18.93	0.005	0.12	0.05	0.09	9.40	0.77	4.23	1.93	0.19	52.90	0.04	0.478	0.006	1.25	0.31	4.01	0.10
2025 Sep	Mean	108.42	129.31	0.01	0.01	0.33	0.05	0.06	0.04	0.00	33.07	0.16																																

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	110.34	131.15	0.02	0.01	0.61	0.06	0.10	0.09	0.01	33.57	0.35	0.74	17.50	0.51	1.39	0.17	0.011	0.009	0.24	0.80	12.37	0.034	0.023	0.24	0.02	45.14	0.005	0.15	0.13	0.19	9.22	1.91	13.52	1.92	0.19	109.69	0.04	0.485	0.012	2.53	0.40	7.01	0.10
2027 Feb	Mean	108.07	128.39	0.02	0.01	0.61	0.06	0.10	0.07	0.00	32.87	0.36	0.72	16.55	0.51	1.39	0.16	0.011	0.009	0.23	0.78	12.10	0.035	0.019	0.23	0.02	43.34	0.005	0.15	0.14	0.19	9.00	1.94	9.61	1.88	0.19	96.40	0.04	0.475	0.012	2.14	0.40	7.04	0.10
2027 Mar	Mean	104.96	124.69	0.02	0.01	0.59	0.06	0.10	0.07	0.00	31.92	0.34	0.70	15.36	0.49	1.33	0.16	0.010	0.008	0.23	0.76	11.75	0.033	0.017	0.23	0.02	40.47	0.005	0.15	0.14	0.18	8.74	1.85	7.81	1.83	0.19	87.63	0.03	0.462	0.011	1.92	0.38	6.75	0.09
2027 Apr	Mean	249.16	297.78	0.03	0.02	0.75	0.12	0.14	0.09	0.01	76.11	0.40	1.72	15.63	0.97	2.25	0.39	0.022	0.022	0.55	1.89	28.26	0.036	0.017	0.54	0.06	42.29	0.011	0.28	0.14	2.22	21.66	1.86	9.18	4.43	0.43	121.72	0.08	1.083	0.017	2.83	0.73	12.13	0.22
2027 May	Mean	4787.45	5742.94	0.28	0.42	7.65	2.20	1.79	1.02	0.21	1466.37	3.43	33.76	87.62	16.58	34.42	7.63	0.402	0.434	10.63	37.39	547.38	0.259	0.105	10.35	1.14	263.29	0.207	4.56	0.52	2.10	426.90	8.98	92.08	86.17	8.24	1482.72	1.61	20.671	0.245	37.56	12.15	199.53	4.13
2027 Jun	Mean	3099.03	3713.80	0.18	0.25	4.84	1.41	1.15	0.60	0.13	948.52	1.97	21.73	51.98	10.66	21.15	4.92	0.241	0.278	6.86	24.02	353.56	0.149	0.066	6.70	0.73	154.61	0.134	2.92	0.32	1.31	274.45	5.63	58.23	55.59	5.35	947.12	1.04	13.407	0.147	24.05	7.79	116.16	2.68
2027 Jul	Mean	178.47	213.12	0.02	0.01	0.45	0.08	0.09	0.05	0.01	54.48	0.20	1.23	8.18	0.66	1.37	0.28	0.013	0.015	0.39	1.35	20.21	0.019	0.010	0.39	0.04	22.05	0.008	0.19	0.07	0.13	15.42	1.01	5.36	3.16	0.31	75.83	0.06	0.777	0.010	1.80	0.49	6.60	0.16
2027 Aug	Mean	106.58	126.97	0.01	0.01	0.40	0.05	0.07	0.04	0.00	32.48	0.21	0.72	9.04	0.44	1.02	0.16	0.008	0.009	0.23	0.79	12.00	0.020	0.010	0.23	0.02	23.99	0.005	0.13	0.08	0.12	9.06	1.12	4.76	1.87	0.19	61.69	0.04	0.466	0.008	1.39	0.33	4.89	0.09
2027 Sep	Mean	105.23	125.31	0.02	0.01	0.42	0.05	0.08	0.04	0.00	32.06	0.23	0.71	9.89	0.44	1.06	0.16	0.009	0.009	0.23	0.78	11.84	0.022	0.011	0.23	0.02	26.22	0.005	0.13	0.08	0.13	8.92	1.22	5.06	1.85	0.18	64.67	0.03	0.461	0.008	1.45	0.34	5.12	0.09
2027 Oct	Mean	130.20	155.13	0.02	0.01	0.49	0.06	0.09	0.05	0.01	39.68	0.26	0.88	11.10	0.53	1.25	0.20	0.010	0.011	0.28	0.96	14.67	0.024	0.012	0.28	0.03	29.49	0.006	0.15	0.10	0.15	11.07	1.37	5.84	2.29	0.23	75.52	0.04	0.569	0.010	1.70	0.41	6.09	0.11
2027 Nov	Mean	108.88	129.61	0.02	0.01	0.47	0.06	0.08	0.05	0.00	33.16	0.25	0.74	11.19	0.47	1.14	0.17	0.009	0.009	0.24	0.80	12.24	0.025	0.012	0.23	0.02	29.65	0.005	0.14	0.10	0.14	9.20	1.38	5.60	1.91	0.19	70.64	0.04	0.477	0.009	1.57	0.36	5.60	0.10
2027 Dec	Mean	110.65	131.58	0.02	0.01	0.57	0.06	0.10	0.06	0.01	33.68	0.32	0.74	14.34	0.50	1.32	0.17	0.010	0.009	0.24	0.81	12.41	0.031	0.016	0.24	0.02	37.93	0.005	0.15	0.12	0.18	9.28	1.76	6.79	1.93	0.20	83.35	0.04	0.486	0.011	1.82	0.39	6.62	0.10
2028 Jan	Mean	109.95	130.61	0.02	0.01	0.63	0.06	0.10	0.07	0.01	33.44	0.37	0.73	16.29	0.52	1.42	0.17	0.011	0.009	0.24	0.80	12.31	0.036	0.018	0.24	0.02	43.06	0.005	0.15	0.15	0.20	9.15	2.00	7.51	1.91	0.19	90.74	0.04	0.484	0.012	1.97	0.41	7.22	0.10
2028 Feb	Mean	107.85	128.05	0.02	0.01	0.64	0.06	0.11	0.07	0.00	32.79	0.37	0.72	16.56	0.52	1.42	0.16	0.011	0.009	0.23	0.78	12.06	0.036	0.018	0.23	0.02	43.76	0.005	0.15	0.16	0.20	8.94	2.03	7.57	1.87	0.19	91.21	0.04	0.475	0.012	1.97	0.41	7.26	0.09
2028 Mar	Mean	104.43	123.98	0.02	0.01	0.61	0.06	0.10	0.07	0.00	31.74	0.36	0.69	15.85	0.50	1.37	0.16	0.010	0.008	0.22	0.75	11.67	0.035	0.017	0.23	0.02	41.90	0.005	0.15	0.15	0.19	8.66	1.95	7.26	1.81	0.19	87.60	0.03	0.460	0.012	1.89	0.39	6.98	0.09
2028 Apr	Mean	149.79	178.50	0.02	0.01	0.59	0.07	0.11	0.07	0.01	45.66	0.33	1.02	13.87	0.63	1.55	0.23	0.013	0.013	0.33	1.11	16.88	0.031	0.015	0.32	0.03	37.05	0.007	0.18	0.13	0.18	12.76	1.68	7.07	2.64	0.26	90.36	0.05	0.655	0.013	2.03	0.48	8.11	0.13
2028 May	Mean	3086.24	3702.35	0.19	0.31	5.49	1.43	1.21	0.84	0.13	945.33	3.09	21.77	78.03	10.86	25.10	4.92	0.302	0.280	6.85	24.11	352.90	0.235	0.081	6.67	0.73	236.17	0.134	2.98	0.42	1.55	275.28	7.25	65.07	55.56	5.31	1001.79	1.04	13.325	0.192	25.22	8.07	161.96	2.66
2028 Jun	Mean	2872.45	3446.29	0.17	0.28	4.87	1.33	1.09	0.76	0.12	879.92	2.71	20.27	64.86	10.03	22.93	4.58	0.279	0.261	6.38	22.46	328.54	0.202	0.067	6.21	0.68	199.32	0.124	2.75	0.31	1.36	256.42	5.81	57.69	51.73	4.94	902.47	0.97	12.399	0.175	22.88	7.44	148.10	2.48
2028 Jul	Mean	108.10	128.89	0.01	0.01	0.35	0.05	0.07	0.04	0.00	32.96	0.17	0.74	7.33	0.43	0.94	0.17	0.008	0.009	0.24	0.81	12.20	0.016	0.008	0.23	0.02	19.53	0.005	0.12	0.06	0.10	9.24	0.91	4.14	1.91	0.19	55.33	0.04	0.472	0.007	1.27	0.32	4.51	0.09
2028 Aug	Mean	107.40	127.93	0.02	0.01	0.43	0.05	0.08	0.05	0.00	32.73	0.23	0.73	10.04	0.45	1.08	0.17	0.009	0.009	0.23	0.79	12.09	0.022	0.011	0.23	0.02	26.63	0.005	0.13	0.08	0.13	9.11	1.24	5.14	1.89	0.19	65.80	0.04	0.470	0.009	1.47	0.34	5.29	0.09
2028 Sep	Mean	104.37	124.25	0.02	0.01	0.45	0.05	0.08	0.05	0.00	31.79	0.24	0.71	10.70	0.45	1.10	0.16	0.009	0.009	0.23	0.77	11.74	0.023	0.012	0.23	0.02	28.34	0.005	0.13	0.09	0.14	8.83	1.32	5.35	1.83	0.18	67.61	0.03	0.457	0.009	1.50	0.34	5.41	0.09
2028 Oct	Mean	153.14	182.90	0.02	0.02	0.60	0.08	0.11	0.07	0.01	46.76	0.36	1.05	14.22	0.64	1.69	0.24	0.016	0.013	0.34	1.16	17.34	0.033	0.015	0.33	0.03	38.41	0.007	0.19	0.11	0.18	13.25	1.67	7.18	2.72	0.27	91.58	0.05	0.667	0.014	2.06	0.49	9.68	0.13
2028 Nov	Mean	107.97	128.47	0.02	0.01	0.49	0.06	0.09	0.05	0.00	32.87	0.27	0.73	11.87	0.47	1.18	0.17	0.009	0.009	0.23	0.79	12.13	0.026	0.013	0.23	0.02	31.44	0.005	0.14	0.11	0.15	9.10	1.46	5.83	1.89	0.19	73.08	0.04	0.473	0.010	1.62	0.36	5.81	0.09
2028 Dec	Mean	110.44	131.27	0.02	0.01	0.59	0.06	0.10	0.06	0.01	33.60	0.33	0.74	14.87	0.51	1.35	0.17	0.010	0.009	0.24	0.80	12.38	0.033	0.016	0.24	0.02	39.34	0.005	0.15	0.13	0.18	9.23	1.83	6.98	1.93	0.20	85.39	0.04	0.485	0.011	1.86	0.40	6.80	0.10
2029 Jan	Mean	109.60	130.16	0.02	0.01	0.66	0.06	0.11	0.07	0.01	33.32	0.38	0.73	17.59	0.53	1.47	0.17	0.011	0.009	0.24	0.79	12.26	0.038	0.019	0.24	0.02	46.55	0.005	0.16	0.15	0.21	9.10	2.11	8.03	1.91	0.19	94.81	0.04	0.482	0.013	2.05	0.42	7.51	0.10
2029 Feb	Mean	106.95	126.96	0.02	0.01	0.68	0.06	0.11	0.07	0.00	32.51	0.40	0.71	18.70	0.53	1.49	0.16	0.011	0.009	0.23	0.77	11.95	0.039	0.020	0.23	0.02	49.54	0.005	0.16	0.16	0.21	8.86	2.19	8.45	1.86	0.19	97.54	0.04	0.471	0.013	2.11	0.42	7.68	0.09
2029 Mar	Mean	103.42	122.77	0.02	0.01	0.66	0.																																					

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	152.94	182.56	0.02	0.01	0.47	0.07	0.09	0.05	0.01	46.68	0.24	1.05	10.01	0.60	1.35	0.24	0.013	0.013	0.33	1.15	17.30	0.022	0.011	0.33	0.03	26.87	0.007	0.17	0.07	0.14	13.18	1.21	5.71	2.71	0.27	76.25	0.05	0.667	0.010	1.76	0.45	6.94	0.13
2030 Aug	Mean	104.87	124.90	0.02	0.01	0.45	0.05	0.08	0.05	0.00	31.95	0.24	0.71	10.87	0.45	1.11	0.16	0.009	0.009	0.23	0.77	11.80	0.024	0.012	0.23	0.02	28.83	0.005	0.13	0.08	0.14	8.90	1.32	5.44	1.84	0.18	68.16	0.03	0.459	0.009	1.52	0.34	5.47	0.09
2030 Sep	Mean	103.81	123.59	0.02	0.01	0.47	0.05	0.08	0.05	0.00	31.62	0.26	0.70	11.52	0.45	1.13	0.16	0.009	0.009	0.22	0.76	11.68	0.025	0.013	0.22	0.02	30.53	0.005	0.13	0.09	0.14	8.78	1.40	5.67	1.82	0.18	70.39	0.03	0.455	0.009	1.56	0.35	5.63	0.09
2030 Oct	Mean	104.09	123.91	0.02	0.01	0.46	0.05	0.08	0.05	0.00	31.70	0.25	0.70	11.32	0.45	1.12	0.16	0.009	0.009	0.23	0.77	11.70	0.025	0.012	0.22	0.02	30.01	0.005	0.13	0.09	0.14	8.80	1.38	5.60	1.83	0.18	69.69	0.03	0.456	0.009	1.55	0.35	5.54	0.09
2030 Nov	Mean	107.52	127.93	0.02	0.01	0.51	0.06	0.09	0.05	0.00	32.74	0.29	0.72	12.81	0.48	1.22	0.16	0.010	0.009	0.23	0.79	12.08	0.028	0.014	0.23	0.02	33.94	0.005	0.14	0.11	0.16	9.06	1.56	6.20	1.88	0.19	76.31	0.04	0.471	0.010	1.68	0.37	6.05	0.09
2030 Dec	Mean	109.68	130.35	0.02	0.01	0.62	0.06	0.10	0.07	0.00	33.37	0.36	0.73	16.21	0.52	1.41	0.17	0.011	0.009	0.24	0.80	12.29	0.035	0.017	0.24	0.02	42.90	0.005	0.15	0.14	0.19	9.16	1.96	7.50	1.91	0.19	90.01	0.04	0.482	0.012	1.95	0.40	7.15	0.10
2031 Jan	Mean	108.68	129.03	0.03	0.01	0.69	0.06	0.11	0.07	0.00	33.04	0.41	0.72	18.37	0.54	1.53	0.16	0.011	0.009	0.23	0.78	12.15	0.040	0.020	0.23	0.02	48.53	0.005	0.16	0.16	0.22	9.01	2.25	8.27	1.89	0.19	98.60	0.04	0.478	0.013	2.12	0.42	7.88	0.10
2031 Feb	Mean	105.97	125.74	0.03	0.01	0.71	0.06	0.12	0.08	0.00	32.20	0.42	0.70	18.82	0.54	1.55	0.16	0.011	0.008	0.23	0.76	11.83	0.042	0.020	0.23	0.02	49.66	0.005	0.16	0.17	0.22	8.75	2.33	8.37	1.84	0.19	100.16	0.03	0.467	0.013	2.14	0.42	8.03	0.09
2031 Mar	Mean	102.46	121.56	0.03	0.01	0.69	0.06	0.11	0.07	0.00	31.13	0.41	0.68	18.10	0.52	1.50	0.15	0.011	0.008	0.22	0.73	11.44	0.040	0.019	0.22	0.02	47.74	0.004	0.16	0.16	0.22	8.45	2.25	8.05	1.78	0.18	96.63	0.03	0.452	0.013	2.06	0.41	7.77	0.09
2031 Apr	Mean	112.11	133.38	0.02	0.01	0.57	0.06	0.10	0.06	0.01	34.13	0.33	0.75	14.07	0.51	1.35	0.17	0.011	0.009	0.24	0.82	12.59	0.032	0.015	0.24	0.02	37.27	0.005	0.15	0.13	0.18	9.43	1.75	6.66	1.96	0.20	83.05	0.04	0.492	0.011	1.81	0.40	7.07	0.10
2031 May	Mean	3596.25	4313.71	0.23	0.39	6.41	1.67	1.42	1.01	0.15	1101.46	3.51	25.35	90.00	12.71	29.63	5.73	0.384	0.326	7.98	28.07	411.13	0.292	0.097	7.78	0.85	269.46	0.156	3.50	0.52	1.87	320.54	8.97	76.03	64.72	6.19	1187.59	1.21	15.530	0.235	29.72	9.35	209.72	3.11
2031 Jun	Mean	2877.10	3449.64	0.18	0.29	4.84	1.32	1.10	0.74	0.12	880.93	2.48	20.23	61.91	10.05	22.51	4.57	0.289	0.259	6.38	22.39	328.61	0.203	0.070	6.22	0.68	186.65	0.125	2.75	0.35	1.38	255.71	6.20	57.47	51.70	4.96	915.57	0.97	12.434	0.175	23.09	7.37	154.26	2.49
2031 Jul	Mean	133.66	159.46	0.02	0.01	0.43	0.06	0.08	0.05	0.01	40.78	0.22	0.91	8.87	0.53	1.19	0.21	0.011	0.011	0.29	1.00	15.10	0.020	0.010	0.29	0.03	23.70	0.006	0.15	0.07	0.13	11.47	1.11	5.01	2.36	0.23	67.89	0.04	0.583	0.009	1.56	0.40	6.03	0.12
2031 Aug	Mean	104.39	124.29	0.02	0.01	0.46	0.05	0.08	0.05	0.00	31.80	0.25	0.71	10.91	0.45	1.12	0.16	0.009	0.009	0.23	0.77	11.74	0.024	0.012	0.23	0.02	28.88	0.005	0.13	0.09	0.14	8.83	1.37	5.41	1.83	0.18	69.01	0.03	0.457	0.009	1.53	0.35	5.58	0.09
2031 Sep	Mean	102.80	122.33	0.02	0.01	0.50	0.05	0.09	0.05	0.00	31.30	0.28	0.69	12.01	0.46	1.18	0.16	0.009	0.008	0.22	0.75	11.55	0.027	0.013	0.22	0.02	31.75	0.004	0.13	0.10	0.15	8.67	1.51	5.80	1.80	0.18	72.95	0.03	0.451	0.010	1.60	0.35	5.88	0.09
2031 Oct	Mean	117.90	140.40	0.02	0.01	0.55	0.06	0.09	0.06	0.01	35.92	0.31	0.80	13.13	0.52	1.33	0.18	0.011	0.010	0.26	0.87	13.27	0.030	0.014	0.25	0.03	34.80	0.005	0.15	0.11	0.17	9.99	1.64	6.40	2.07	0.21	80.93	0.04	0.516	0.011	1.78	0.40	6.87	0.10
2031 Nov	Mean	105.80	125.82	0.02	0.01	0.57	0.06	0.10	0.06	0.00	32.20	0.32	0.71	14.15	0.49	1.31	0.16	0.010	0.009	0.23	0.77	11.87	0.032	0.015	0.23	0.02	37.38	0.005	0.14	0.12	0.18	8.88	1.77	6.63	1.85	0.19	82.18	0.03	0.464	0.011	1.78	0.38	6.61	0.09
2031 Dec	Mean	107.47	127.67	0.03	0.01	0.69	0.06	0.11	0.07	0.00	32.68	0.41	0.72	17.98	0.53	1.53	0.16	0.011	0.009	0.23	0.78	12.03	0.040	0.019	0.23	0.02	47.43	0.005	0.16	0.14	0.22	8.95	2.25	8.07	1.87	0.19	97.74	0.04	0.473	0.013	2.09	0.42	7.87	0.09
2032 Jan	Mean	106.46	126.33	0.03	0.01	0.76	0.06	0.12	0.08	0.00	32.35	0.46	0.71	20.57	0.55	1.65	0.16	0.012	0.008	0.23	0.76	11.89	0.045	0.022	0.23	0.02	54.31	0.005	0.17	0.17	0.24	8.80	2.52	9.06	1.85	0.19	106.84	0.03	0.469	0.014	2.27	0.44	8.57	0.09
2032 Feb	Mean	104.13	123.52	0.03	0.01	0.77	0.06	0.12	0.08	0.00	31.63	0.46	0.69	21.12	0.55	1.64	0.16	0.012	0.008	0.22	0.74	11.62	0.045	0.022	0.22	0.02	55.83	0.005	0.17	0.17	0.24	8.58	2.54	9.27	1.80	0.18	107.56	0.03	0.459	0.014	2.29	0.44	8.58	0.09
2032 Mar	Mean	100.96	119.76	0.03	0.01	0.73	0.06	0.12	0.08	0.00	30.67	0.44	0.67	20.27	0.53	1.57	0.15	0.011	0.008	0.22	0.72	11.26	0.043	0.021	0.22	0.02	53.60	0.004	0.16	0.17	0.23	8.31	2.42	8.92	1.75	0.18	103.13	0.03	0.445	0.014	2.20	0.42	8.20	0.09
2032 Apr	Mean	117.25	139.57	0.02	0.01	0.62	0.06	0.10	0.07	0.01	35.71	0.36	0.79	16.08	0.54	1.48	0.18	0.012	0.010	0.25	0.86	13.18	0.035	0.017	0.25	0.03	42.78	0.005	0.16	0.13	0.19	9.90	1.91	7.54	2.06	0.21	90.50	0.04	0.514	0.013	1.98	0.42	8.03	0.10
2032 May	Mean	3537.63	4243.43	0.24	0.38	6.62	1.65	1.44	1.02	0.15	1083.51	3.66	24.94	101.28	12.61	29.63	5.64	0.379	0.320	7.85	27.62	404.43	0.307	0.108	7.65	0.84	299.00	0.153	3.48	0.58	1.94	315.33	10.03	80.03	63.66	6.09	1212.68	1.19	15.277	0.236	30.16	9.31	207.45	3.06
2032 Jun	Mean	2423.13	2905.74	0.15	0.25	4.22	1.12	0.95	0.64	0.10	742.00	2.20	17.05	58.56	8.52	19.28	3.86	0.246	0.219	5.38	18.88	276.85	0.182	0.065	5.24	0.57	174.64	0.105	2.34	0.32	1.21	215.57	5.77	51.03	43.56	4.18	792.56	0.82	10.470	0.150	19.90	6.26	131.70	2.09
2032 Jul	Mean	153.83	183.66	0.02	0.01	0.47	0.07	0.09	0.05	0.01	46.95	0.24	1.06	10.10	0.60	1.38	0.24	0.013	0.013	0.34	1.16	17.41	0.023	0.011	0.33	0.03	27.21	0.007	0.17	0.08	0.14	13.28	1.19	5.75	2.72	0.27	76.36	0.05	0.670	0.011	1.77	0.45	7.37	0.13
2032 Aug	Mean	104.03	123.85	0.02	0.01	0.47	0.05	0.08	0.05	0.00	31.69	0.26	0.70	11.72	0.45	1.14	0.16	0.009	0.009	0.23	0.77	11.70	0.025	0.013	0.22	0.02	31.10	0.005	0.13	0.09	0.14	8.80	1.41	5.76	1.82	0.18	70.87	0.03	0.456	0.009	1.57	0.35	5.66	0.09
2032 Sep	Mean	116.56	138.74	0.02	0.01	0.55	0.0																																					

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2034 Jan	Mean	108.57	128.82	0.03	0.01	0.69	0.06	0.11	0.08	0.00	32.99	0.41	0.72	21.88	0.54	1.52	0.16	0.011	0.009	0.23	0.78	12.12	0.040	0.023	0.23	0.02	56.47	0.005	0.16	0.17	0.22	8.96	2.25	10.16	1.88	0.19	104.93	0.04	0.479	0.013	2.33	0.42	7.85	0.10
2034 Feb	Mean	106.40	126.19	0.03	0.01	0.70	0.06	0.11	0.08	0.00	32.32	0.41	0.70	21.72	0.53	1.52	0.16	0.011	0.008	0.23	0.76	11.87	0.040	0.022	0.23	0.02	56.90	0.005	0.16	0.18	0.22	8.75	2.27	9.91	1.84	0.19	103.97	0.03	0.469	0.013	2.29	0.42	7.85	0.09
2034 Mar	Mean	103.22	122.42	0.02	0.01	0.66	0.06	0.11	0.08	0.00	31.35	0.39	0.68	20.33	0.51	1.44	0.16	0.011	0.008	0.22	0.74	11.51	0.038	0.021	0.22	0.02	53.59	0.005	0.15	0.17	0.21	8.49	2.13	9.26	1.79	0.18	98.24	0.03	0.455	0.013	2.16	0.40	7.44	0.09
2034 Apr	Mean	131.94	157.11	0.02	0.01	0.58	0.07	0.10	0.07	0.01	40.20	0.34	0.89	16.44	0.57	1.48	0.20	0.013	0.011	0.29	0.97	14.85	0.032	0.017	0.28	0.03	43.87	0.006	0.17	0.14	0.18	11.18	1.71	8.03	2.32	0.23	90.68	0.04	0.578	0.012	2.06	0.44	8.01	0.12
2034 May	Mean	3925.80	4710.63	0.24	0.43	7.13	1.83	1.54	1.22	0.17	1202.69	4.43	27.72	116.17	13.88	33.92	6.27	0.430	0.357	8.73	30.73	449.14	0.336	0.112	8.49	0.93	353.11	0.170	3.79	0.60	2.04	350.74	9.29	88.68	70.73	6.75	1293.66	1.32	16.942	0.271	32.73	10.40	234.26	3.39
2034 Jun	Mean	2746.16	3292.75	0.16	0.28	4.72	1.27	1.05	0.76	0.12	840.85	2.67	19.31	70.12	9.60	22.13	4.37	0.275	0.248	6.09	21.37	313.68	0.201	0.071	5.94	0.65	212.96	0.119	2.62	0.37	1.32	244.12	5.78	58.61	49.35	4.73	876.31	0.92	11.868	0.172	22.28	7.14	145.63	2.37
2034 Jul	Mean	238.84	285.49	0.02	0.02	0.61	0.11	0.12	0.08	0.01	72.97	0.32	1.65	13.38	0.89	2.04	0.37	0.021	0.021	0.52	1.82	27.10	0.028	0.014	0.52	0.05	36.77	0.010	0.25	0.10	0.18	20.78	1.35	8.10	4.25	0.42	104.60	0.08	1.038	0.016	2.51	0.67	11.55	0.21
2034 Aug	Mean	105.73	125.85	0.02	0.01	0.42	0.05	0.07	0.05	0.00	32.20	0.22	0.71	11.24	0.44	1.05	0.16	0.009	0.009	0.23	0.78	11.89	0.021	0.012	0.23	0.02	29.88	0.005	0.13	0.10	0.13	8.93	1.19	5.73	1.85	0.19	66.37	0.03	0.463	0.008	1.52	0.34	5.14	0.09
2034 Sep	Mean	104.26	124.04	0.02	0.01	0.45	0.05	0.08	0.05	0.00	31.74	0.24	0.70	12.36	0.45	1.09	0.16	0.009	0.009	0.23	0.76	11.71	0.023	0.013	0.22	0.02	32.82	0.005	0.13	0.11	0.14	8.77	1.31	6.14	1.82	0.18	70.02	0.03	0.457	0.009	1.59	0.34	5.39	0.09
2034 Oct	Mean	104.16	123.92	0.02	0.01	0.45	0.05	0.08	0.05	0.00	31.71	0.24	0.70	12.37	0.44	1.09	0.16	0.009	0.009	0.22	0.76	11.70	0.023	0.013	0.22	0.02	32.85	0.005	0.13	0.11	0.14	8.77	1.31	6.15	1.82	0.18	70.05	0.03	0.457	0.009	1.59	0.34	5.38	0.09
2034 Nov	Mean	107.64	127.99	0.02	0.01	0.50	0.06	0.09	0.06	0.00	32.76	0.28	0.72	14.32	0.47	1.19	0.16	0.009	0.009	0.23	0.78	12.07	0.027	0.015	0.23	0.02	37.97	0.005	0.14	0.12	0.15	9.02	1.52	6.95	1.88	0.19	77.89	0.04	0.473	0.010	1.75	0.36	5.94	0.09
2034 Dec	Mean	109.97	130.59	0.02	0.01	0.61	0.06	0.10	0.07	0.01	33.44	0.35	0.73	18.21	0.51	1.39	0.17	0.011	0.009	0.24	0.79	12.30	0.034	0.019	0.24	0.02	48.24	0.005	0.15	0.15	0.19	9.14	1.92	8.48	1.91	0.19	92.41	0.04	0.484	0.012	2.05	0.40	7.03	0.10
2035 Jan	Mean	105.45	125.04	0.03	0.01	0.80	0.06	0.13	0.09	0.00	32.03	0.48	0.70	25.50	0.56	1.70	0.16	0.012	0.008	0.23	0.75	11.76	0.047	0.026	0.23	0.02	66.77	0.005	0.17	0.18	0.25	8.66	2.66	11.29	1.82	0.19	117.15	0.03	0.465	0.015	2.55	0.45	8.90	0.09
2035 Feb	Mean	99.05	117.32	0.03	0.01	0.93	0.06	0.14	0.11	0.00	30.06	0.58	0.65	31.01	0.59	1.92	0.15	0.013	0.008	0.21	0.70	11.02	0.057	0.031	0.21	0.02	80.59	0.004	0.18	0.20	0.30	8.07	3.20	13.38	1.71	0.18	135.04	0.03	0.438	0.017	2.91	0.48	10.25	0.09
2035 Mar	Mean	94.55	111.97	0.03	0.01	0.93	0.06	0.14	0.11	0.00	28.69	0.58	0.62	31.32	0.57	1.91	0.14	0.013	0.007	0.20	0.67	10.51	0.058	0.032	0.20	0.02	81.23	0.004	0.18	0.19	0.30	7.69	3.22	13.45	1.63	0.17	134.97	0.03	0.418	0.017	2.90	0.47	10.25	0.08
2035 Apr	Mean	353.82	422.50	0.05	0.04	1.42	0.18	0.25	0.18	0.02	108.01	0.85	2.43	39.56	1.49	4.00	0.55	0.039	0.030	0.77	2.67	40.06	0.079	0.040	0.76	0.08	104.90	0.015	0.43	0.22	0.44	30.57	3.95	19.67	6.27	0.62	223.92	0.12	1.541	0.034	5.14	1.15	23.75	0.31
2035 May	Mean	4986.34	5971.76	0.36	0.51	10.06	2.32	2.12	1.53	0.22	1525.46	5.69	34.84	185.23	17.88	41.87	7.88	0.503	0.444	11.01	38.46	568.11	0.463	0.189	10.78	1.16	527.79	0.216	4.90	0.83	2.90	439.68	16.65	129.63	89.26	8.62	1801.13	1.67	21.597	0.331	44.78	13.35	273.25	4.32
2035 Jun	Mean	3078.15	3685.90	0.21	0.30	5.75	1.42	1.25	0.85	0.13	941.59	3.06	21.49	96.36	10.88	24.43	4.86	0.293	0.273	6.79	23.72	350.58	0.245	0.101	6.65	0.72	276.58	0.134	2.97	0.42	1.63	271.14	8.68	73.56	55.07	5.33	1054.69	1.03	13.336	0.189	26.46	8.08	154.99	2.67
2035 Jul	Mean	134.50	160.41	0.02	0.01	0.55	0.07	0.10	0.07	0.01	41.02	0.31	0.92	15.22	0.57	1.43	0.21	0.013	0.011	0.29	1.00	15.19	0.029	0.016	0.29	0.03	39.87	0.006	0.16	0.09	0.17	11.52	1.56	7.64	2.37	0.24	86.89	0.04	0.587	0.012	1.99	0.44	7.59	0.12
2035 Aug	Mean	100.17	119.14	0.02	0.01	0.60	0.05	0.10	0.07	0.00	30.49	0.35	0.67	18.53	0.48	1.36	0.15	0.010	0.008	0.22	0.73	11.24	0.034	0.019	0.22	0.02	48.10	0.004	0.15	0.11	0.19	8.42	1.91	8.54	1.75	0.18	90.82	0.03	0.439	0.012	2.01	0.38	6.96	0.09
2035 Sep	Mean	97.91	116.38	0.02	0.01	0.65	0.05	0.11	0.08	0.00	29.79	0.39	0.66	20.65	0.49	1.44	0.15	0.011	0.008	0.21	0.71	10.97	0.038	0.021	0.21	0.02	53.57	0.004	0.15	0.12	0.21	8.19	2.13	9.34	1.71	0.17	97.84	0.03	0.430	0.012	2.15	0.39	7.45	0.09
2035 Oct	Mean	114.69	136.43	0.03	0.01	0.71	0.06	0.12	0.08	0.01	34.91	0.42	0.77	22.09	0.56	1.61	0.18	0.012	0.009	0.25	0.84	12.88	0.041	0.023	0.25	0.02	57.38	0.005	0.17	0.13	0.22	9.64	2.28	10.10	2.01	0.20	106.96	0.04	0.503	0.014	2.36	0.44	8.40	0.10
2035 Nov	Mean	100.26	119.09	0.03	0.01	0.74	0.06	0.12	0.09	0.00	30.49	0.45	0.67	24.01	0.53	1.61	0.15	0.012	0.008	0.22	0.73	11.22	0.044	0.024	0.22	0.02	62.24	0.004	0.16	0.14	0.24	8.34	2.47	10.68	1.74	0.18	110.41	0.03	0.441	0.014	2.41	0.42	8.39	0.09
2035 Dec	Mean	100.49	119.18	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.52	0.57	0.66	30.41	0.59	1.90	0.15	0.013	0.008	0.21	0.72	11.21	0.056	0.031	0.22	0.02	78.79	0.004	0.18	0.17	0.29	8.27	3.13	13.18	1.74	0.18	133.28	0.03	0.443	0.017	2.88	0.48	10.12	0.09
2036 Jan	Mean	98.47	116.63	0.04	0.01	1.02	0.06	0.16	0.12	0.00	29.88	0.64	0.65	34.36	0.61	2.08	0.15	0.014	0.008	0.21	0.70	10.95	0.063	0.035	0.21	0.02	88.98	0.004	0.19	0.19	0.33	8.02	3.53	14.70	1.70	0.18	146.83	0.03	0.435	0.019	3.15	0.50	11.15	0.09
2036 Feb	Mean	96.03	113.69	0.04	0.01	1.03	0.06	0.16	0.12	0.00	29.13	0.65	0.63	34.79	0.61	2.08	0.14	0.014	0.007	0.20	0.68	10.67	0.064	0.035	0.21	0.02	90.10	0.004	0.19	0.20	0.33	7.80	3.57	14.83	1.65	0.17	147.73	0.03	0.425	0.019	3.17	0.50	11.21	0.09
2036 Mar	Mean	93.07	110.19																																									

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	240.28	286.61	0.03	0.02	0.73	0.12	0.14	0.09	0.01	73.29	0.40	1.64	17.93	0.93	2.21	0.37	0.022	0.020	0.52	1.80	27.14	0.036	0.019	0.52	0.05	47.80	0.010	0.26	0.10	0.22	20.60	1.80	9.89	4.24	0.42	120.18	0.08	1.049	0.018	2.84	0.71	12.58	0.21
2037 Aug	Mean	102.23	121.59	0.02	0.01	0.58	0.05	0.10	0.07	0.00	31.12	0.34	0.69	17.71	0.48	1.33	0.16	0.010	0.008	0.22	0.75	11.47	0.033	0.018	0.22	0.02	45.98	0.004	0.14	0.11	0.18	8.59	1.83	8.24	1.79	0.18	88.29	0.03	0.449	0.011	1.96	0.38	6.78	0.09
2037 Sep	Mean	108.45	128.95	0.02	0.01	0.65	0.06	0.11	0.08	0.00	33.00	0.38	0.73	19.98	0.52	1.46	0.17	0.011	0.009	0.23	0.79	12.16	0.037	0.020	0.23	0.02	51.87	0.005	0.16	0.12	0.20	9.09	2.06	9.20	1.89	0.19	97.87	0.04	0.476	0.012	2.17	0.41	7.56	0.10
2037 Oct	Mean	102.02	121.28	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.04	0.37	0.68	19.51	0.50	1.41	0.16	0.011	0.008	0.22	0.74	11.44	0.036	0.020	0.22	0.02	50.62	0.004	0.15	0.12	0.20	8.54	2.01	8.94	1.78	0.18	94.64	0.03	0.448	0.012	2.09	0.39	7.25	0.09
2037 Nov	Mean	101.85	120.99	0.03	0.01	0.69	0.06	0.11	0.08	0.00	30.97	0.41	0.68	21.84	0.52	1.51	0.15	0.011	0.008	0.22	0.74	11.40	0.040	0.022	0.22	0.02	56.63	0.004	0.16	0.13	0.22	8.48	2.25	9.85	1.77	0.18	102.95	0.03	0.448	0.013	2.26	0.41	7.83	0.09
2037 Dec	Mean	102.71	121.83	0.03	0.01	0.84	0.06	0.13	0.10	0.00	31.20	0.52	0.68	27.63	0.57	1.78	0.15	0.013	0.008	0.22	0.73	11.46	0.051	0.028	0.22	0.02	71.60	0.005	0.18	0.17	0.27	8.46	2.84	12.12	1.78	0.18	123.76	0.03	0.453	0.016	2.69	0.46	9.39	0.09
2038 Jan	Mean	100.91	119.53	0.03	0.01	0.95	0.06	0.15	0.11	0.00	30.62	0.59	0.66	31.63	0.60	1.96	0.15	0.014	0.008	0.21	0.71	11.22	0.058	0.032	0.22	0.02	81.93	0.004	0.19	0.20	0.30	8.23	3.25	13.65	1.74	0.18	137.53	0.03	0.446	0.018	2.97	0.49	10.43	0.09
2038 Feb	Mean	98.21	116.27	0.04	0.01	0.96	0.06	0.15	0.11	0.00	29.79	0.60	0.64	32.42	0.60	1.98	0.15	0.014	0.008	0.21	0.69	10.91	0.060	0.033	0.21	0.02	83.98	0.004	0.19	0.20	0.31	7.98	3.33	13.93	1.69	0.18	139.67	0.03	0.435	0.018	3.01	0.49	10.59	0.09
2038 Mar	Mean	95.00	112.47	0.03	0.01	0.93	0.06	0.14	0.11	0.00	28.82	0.58	0.62	31.26	0.57	1.91	0.14	0.013	0.007	0.20	0.67	10.55	0.058	0.031	0.20	0.02	80.97	0.004	0.18	0.20	0.30	7.72	3.21	13.43	1.63	0.17	134.74	0.03	0.420	0.017	2.90	0.47	10.22	0.08
2038 Apr	Mean	277.25	330.21	0.04	0.03	1.23	0.14	0.21	0.16	0.01	84.48	0.74	1.88	35.31	1.20	3.26	0.43	0.030	0.023	0.60	2.05	31.21	0.069	0.036	0.60	0.06	93.15	0.012	0.35	0.21	0.38	23.52	3.55	17.07	4.87	0.49	190.01	0.09	1.213	0.028	4.33	0.93	19.06	0.24
2038 May	Mean	4763.61	5689.31	0.33	0.47	9.26	2.17	1.97	1.41	0.21	1454.39	5.15	32.77	164.25	16.81	38.17	7.43	0.462	0.411	10.42	35.97	539.48	0.415	0.168	10.29	1.08	470.07	0.207	4.52	0.77	2.62	412.08	14.69	117.50	84.47	8.30	1648.95	1.59	20.741	0.307	41.44	12.54	250.21	4.15
2038 Jun	Mean	2919.38	3487.22	0.19	0.27	5.23	1.32	1.15	0.78	0.13	891.42	2.74	20.10	83.38	10.16	22.19	4.56	0.269	0.252	6.39	22.07	330.73	0.217	0.088	6.30	0.66	241.32	0.127	2.72	0.38	1.45	252.80	7.42	65.78	51.80	5.09	955.90	0.97	12.707	0.175	24.26	7.54	142.07	2.54
2038 Jul	Mean	194.44	231.82	0.02	0.02	0.66	0.09	0.12	0.08	0.01	59.29	0.37	1.32	17.36	0.78	1.91	0.30	0.018	0.016	0.42	1.45	21.94	0.034	0.018	0.42	0.04	46.02	0.008	0.22	0.11	0.20	16.61	1.75	9.12	3.43	0.34	107.45	0.06	0.849	0.016	2.51	0.59	10.85	0.17
2038 Aug	Mean	101.17	120.32	0.02	0.01	0.56	0.05	0.09	0.07	0.00	30.79	0.33	0.68	17.12	0.47	1.29	0.15	0.010	0.008	0.22	0.74	11.35	0.032	0.018	0.22	0.02	44.46	0.004	0.14	0.11	0.17	8.49	1.77	8.00	1.77	0.18	85.94	0.03	0.444	0.011	1.91	0.37	6.57	0.09
2038 Sep	Mean	104.16	123.82	0.02	0.01	0.62	0.06	0.10	0.07	0.00	31.69	0.37	0.70	19.29	0.50	1.41	0.16	0.011	0.008	0.22	0.76	11.68	0.036	0.020	0.22	0.02	50.08	0.005	0.15	0.12	0.19	8.72	1.99	8.88	1.82	0.18	94.38	0.03	0.457	0.012	2.09	0.40	7.23	0.09
2038 Oct	Mean	134.43	159.92	0.03	0.01	0.72	0.07	0.12	0.08	0.01	40.93	0.42	0.90	21.68	0.62	1.68	0.21	0.013	0.011	0.29	0.98	15.09	0.040	0.022	0.29	0.03	56.40	0.006	0.18	0.14	0.22	11.31	2.24	10.19	2.35	0.24	110.12	0.04	0.590	0.014	2.46	0.48	8.73	0.12
2038 Nov	Mean	102.08	121.25	0.03	0.01	0.69	0.06	0.11	0.08	0.00	31.04	0.41	0.68	21.73	0.52	1.51	0.15	0.011	0.008	0.22	0.74	11.42	0.040	0.022	0.22	0.02	56.36	0.004	0.16	0.14	0.22	8.49	2.24	9.81	1.78	0.18	102.58	0.03	0.449	0.013	2.26	0.41	7.80	0.09
2038 Dec	Mean	103.03	122.20	0.03	0.01	0.84	0.06	0.13	0.10	0.00	31.30	0.51	0.68	27.35	0.57	1.77	0.16	0.013	0.008	0.22	0.74	11.49	0.050	0.028	0.22	0.02	70.87	0.005	0.17	0.17	0.26	8.48	2.82	12.01	1.78	0.18	122.80	0.03	0.454	0.016	2.67	0.46	9.32	0.09
2039 Jan	Mean	101.11	119.77	0.03	0.01	0.94	0.06	0.15	0.11	0.00	30.69	0.58	0.66	31.23	0.59	1.94	0.15	0.014	0.008	0.22	0.71	11.25	0.057	0.031	0.22	0.02	80.89	0.004	0.19	0.20	0.30	8.24	3.21	13.50	1.74	0.18	136.12	0.03	0.447	0.017	2.94	0.48	10.32	0.09
2039 Feb	Mean	98.40	116.50	0.03	0.01	0.96	0.06	0.15	0.11	0.00	29.85	0.60	0.64	32.07	0.59	1.96	0.15	0.014	0.008	0.21	0.69	10.93	0.059	0.032	0.21	0.02	83.06	0.004	0.19	0.20	0.31	7.99	3.30	13.79	1.69	0.18	138.43	0.03	0.435	0.018	2.98	0.48	10.49	0.09
2039 Mar	Mean	95.16	112.66	0.03	0.01	0.92	0.06	0.14	0.11	0.00	28.87	0.58	0.62	30.87	0.57	1.89	0.14	0.013	0.007	0.20	0.67	10.57	0.057	0.031	0.20	0.02	79.97	0.004	0.18	0.20	0.29	7.73	3.17	13.28	1.64	0.17	133.37	0.03	0.421	0.017	2.87	0.47	10.11	0.08
2039 Apr	Mean	221.99	264.35	0.04	0.02	1.00	0.11	0.17	0.12	0.01	67.63	0.58	1.50	28.75	0.96	2.54	0.34	0.022	0.018	0.48	1.64	24.98	0.055	0.029	0.48	0.05	75.35	0.010	0.28	0.18	0.31	18.81	2.93	13.95	3.90	0.39	155.23	0.07	0.972	0.021	3.52	0.75	13.97	0.19
2039 May	Mean	4473.38	5342.03	0.33	0.43	9.11	2.05	1.92	1.34	0.20	1365.65	4.99	30.75	169.25	15.92	36.01	6.97	0.426	0.385	9.78	33.75	506.48	0.410	0.175	9.66	1.01	477.50	0.195	4.30	0.85	2.59	386.64	15.56	116.84	79.29	7.80	1610.45	1.49	19.481	0.288	40.15	11.88	230.46	3.90
2039 Jun	Mean	2903.42	3468.09	0.19	0.27	5.22	1.31	1.15	0.77	0.13	886.53	2.71	19.99	83.45	10.11	21.96	4.53	0.265	0.251	6.36	21.95	328.91	0.215	0.088	6.27	0.66	240.66	0.126	2.71	0.39	1.45	251.39	7.49	65.79	51.51	5.06	954.70	0.97	12.638	0.172	24.20	7.50	139.28	2.53
2039 Jul	Mean	193.93	231.17	0.03	0.02	0.69	0.10	0.13	0.08	0.01	59.13	0.38	1.32	18.27	0.78	1.92	0.30	0.018	0.016	0.42	1.44	21.87	0.036	0.019	0.42	0.04	48.20	0.008	0.22	0.11	0.21	16.55	1.86	9.51	3.42	0.34	111.08	0.06	0.847	0.016	2.58	0.60	10.56	0.17
2039 Aug	Mean	101.40	120.60	0.02	0.01	0.55	0.05	0.09	0.06	0.00	30.86	0.32	0.68	16.81	0.47	1.28	0.15	0.010	0.008	0.22	0.74	11.38	0.031	0.017	0.22	0.02	43.66	0.004	0.14	0.11	0.17	8.52	1.74	7.88	1.77	0.18	84.87	0.03	0.445	0.011	1.89	0.37	6.51	0.09
2039 Sep	Mean	99.63																																										

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2041 Jan	Mean	101.81	120.60	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.90	0.57	0.67	30.52	0.59	1.91	0.15	0.013	0.008	0.22	0.72	11.32	0.056	0.031	0.22	0.02	79.06	0.004	0.18	0.20	0.29	8.30	3.14	13.23	1.75	0.18	133.72	0.03	0.450	0.017	2.89	0.48	10.13	0.09
2041 Feb	Mean	99.07	117.29	0.03	0.01	0.94	0.06	0.15	0.11	0.00	30.05	0.58	0.65	31.33	0.59	1.93	0.15	0.013	0.008	0.21	0.70	11.01	0.058	0.032	0.21	0.02	81.16	0.004	0.18	0.20	0.30	8.05	3.22	13.51	1.70	0.18	135.92	0.03	0.438	0.017	2.93	0.48	10.30	0.09
2041 Mar	Mean	95.83	113.46	0.03	0.01	0.90	0.06	0.14	0.11	0.00	29.07	0.56	0.63	30.17	0.57	1.86	0.14	0.013	0.007	0.20	0.67	10.65	0.056	0.030	0.21	0.02	78.15	0.004	0.18	0.20	0.29	7.78	3.10	13.01	1.65	0.17	130.98	0.03	0.424	0.017	2.83	0.46	9.92	0.08
2041 Apr	Mean	266.70	317.55	0.04	0.03	1.21	0.14	0.21	0.16	0.01	81.24	0.73	1.80	35.12	1.16	3.19	0.41	0.030	0.022	0.58	1.97	30.00	0.069	0.035	0.58	0.06	92.63	0.012	0.34	0.22	0.37	22.58	3.53	16.84	4.68	0.47	186.57	0.09	1.168	0.027	4.24	0.90	18.81	0.23
2041 May	Mean	4711.01	5626.26	0.33	0.46	9.15	2.15	1.95	1.38	0.21	1438.28	5.02	32.40	161.83	16.62	37.45	7.34	0.451	0.406	10.31	35.57	533.48	0.406	0.166	10.17	1.07	461.98	0.205	4.47	0.81	2.58	407.41	14.58	116.27	83.53	8.21	1632.46	1.57	20.513	0.300	41.00	12.39	243.06	4.10
2041 Jun	Mean	2311.35	2760.82	0.15	0.21	4.13	1.04	0.91	0.61	0.10	705.74	2.12	15.91	65.36	8.04	17.36	3.61	0.209	0.200	5.06	17.47	261.83	0.168	0.069	4.99	0.53	188.42	0.101	2.15	0.32	1.14	200.10	5.89	52.04	41.00	4.03	757.29	0.77	10.061	0.135	19.21	5.96	109.36	2.01
2041 Jul	Mean	117.96	140.51	0.02	0.01	0.47	0.06	0.08	0.05	0.01	35.95	0.25	0.80	13.03	0.49	1.20	0.18	0.010	0.010	0.26	0.87	13.28	0.024	0.014	0.25	0.03	33.98	0.005	0.14	0.09	0.14	10.02	1.35	6.60	2.07	0.21	75.32	0.04	0.516	0.010	1.72	0.38	5.99	0.10
2041 Aug	Mean	108.66	129.26	0.02	0.01	0.56	0.06	0.09	0.06	0.00	33.08	0.32	0.73	16.54	0.49	1.30	0.17	0.010	0.009	0.23	0.80	12.20	0.031	0.017	0.23	0.02	42.99	0.005	0.15	0.11	0.17	9.14	1.71	7.86	1.90	0.19	85.58	0.04	0.477	0.011	1.92	0.38	6.63	0.10
2041 Sep	Mean	142.47	169.51	0.03	0.01	0.71	0.07	0.12	0.09	0.00	43.38	0.42	0.96	21.27	0.64	1.76	0.22	0.015	0.012	0.31	1.04	16.00	0.040	0.022	0.31	0.03	55.64	0.006	0.19	0.14	0.22	12.00	2.17	10.05	2.49	0.25	109.56	0.05	0.625	0.015	2.46	0.50	9.71	0.12
2041 Oct	Mean	129.52	154.05	0.03	0.01	0.69	0.07	0.12	0.08	0.01	39.42	0.40	0.87	20.65	0.60	1.60	0.20	0.013	0.011	0.28	0.95	14.54	0.038	0.021	0.28	0.03	53.67	0.006	0.18	0.14	0.21	10.88	2.13	9.72	2.26	0.23	105.27	0.04	0.568	0.013	2.35	0.46	8.21	0.11
2041 Nov	Mean	103.00	122.37	0.02	0.01	0.65	0.06	0.11	0.08	0.00	31.33	0.38	0.69	20.25	0.51	1.44	0.16	0.011	0.008	0.22	0.75	11.53	0.037	0.021	0.22	0.02	52.53	0.005	0.15	0.14	0.20	8.58	2.09	9.24	1.79	0.18	97.48	0.03	0.453	0.012	2.15	0.40	7.40	0.09
2041 Dec	Mean	104.23	123.63	0.03	0.01	0.80	0.06	0.13	0.09	0.00	31.66	0.48	0.69	25.80	0.56	1.70	0.16	0.012	0.008	0.22	0.75	11.63	0.048	0.026	0.22	0.02	66.87	0.005	0.17	0.17	0.25	8.58	2.66	11.41	1.80	0.19	117.48	0.03	0.460	0.015	2.56	0.45	8.91	0.09
2042 Jan	Mean	102.50	121.42	0.03	0.01	0.90	0.06	0.14	0.11	0.00	31.11	0.55	0.67	29.63	0.58	1.87	0.15	0.013	0.008	0.22	0.72	11.40	0.055	0.030	0.22	0.02	76.76	0.005	0.18	0.20	0.28	8.36	3.05	12.88	1.77	0.18	130.65	0.03	0.453	0.017	2.83	0.47	9.90	0.09
2042 Feb	Mean	99.77	118.12	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.27	0.57	0.65	30.49	0.58	1.89	0.15	0.013	0.008	0.21	0.70	11.08	0.056	0.031	0.21	0.02	78.99	0.004	0.18	0.21	0.29	8.10	3.14	13.19	1.72	0.18	133.04	0.03	0.442	0.017	2.87	0.47	10.08	0.09
2042 Mar	Mean	96.41	114.14	0.03	0.01	0.88	0.06	0.14	0.10	0.00	29.25	0.55	0.63	29.35	0.56	1.82	0.14	0.013	0.007	0.20	0.68	10.71	0.054	0.030	0.21	0.02	76.04	0.004	0.17	0.20	0.28	7.83	3.02	12.70	1.66	0.17	128.16	0.03	0.427	0.016	2.77	0.46	9.71	0.09
2042 Apr	Mean	221.01	263.15	0.04	0.02	0.98	0.11	0.17	0.13	0.01	67.33	0.59	1.49	28.41	0.96	2.60	0.34	0.024	0.018	0.48	1.63	24.86	0.056	0.029	0.48	0.05	74.88	0.010	0.28	0.19	0.30	18.70	2.86	13.71	3.88	0.39	152.37	0.07	0.968	0.022	3.47	0.74	15.13	0.19
2042 May	Mean	4528.07	5407.67	0.32	0.43	8.75	2.06	1.88	1.30	0.20	1382.41	4.73	31.14	153.69	15.96	35.65	7.06	0.427	0.390	9.90	34.18	512.74	0.383	0.159	9.78	1.03	437.90	0.197	4.29	0.80	2.46	391.54	13.94	111.34	80.28	7.89	1566.54	1.51	19.717	0.284	39.35	11.89	228.89	3.94
2042 Jun	Mean	2653.68	3169.79	0.17	0.25	4.69	1.20	1.04	0.70	0.12	810.28	2.45	18.27	73.33	9.21	20.07	4.14	0.244	0.229	5.81	20.06	300.62	0.193	0.077	5.73	0.60	213.06	0.115	2.46	0.35	1.30	229.77	6.49	58.80	47.08	4.62	859.65	0.88	11.551	0.158	21.86	6.83	128.68	2.31
2042 Jul	Mean	205.34	244.79	0.03	0.02	0.69	0.10	0.13	0.09	0.01	62.61	0.38	1.40	17.80	0.82	1.98	0.32	0.019	0.017	0.45	1.53	23.16	0.035	0.018	0.44	0.05	47.17	0.009	0.23	0.12	0.21	17.53	1.80	9.43	3.62	0.36	111.66	0.07	0.897	0.016	2.61	0.62	11.14	0.18
2042 Aug	Mean	102.00	121.30	0.02	0.01	0.54	0.05	0.09	0.06	0.00	31.04	0.31	0.68	16.12	0.47	1.25	0.16	0.010	0.008	0.22	0.74	11.44	0.030	0.017	0.22	0.02	41.86	0.004	0.14	0.11	0.17	8.56	1.67	7.61	1.78	0.18	82.49	0.03	0.448	0.010	1.84	0.36	6.31	0.09
2042 Sep	Mean	100.29	119.22	0.02	0.01	0.57	0.05	0.10	0.07	0.00	30.51	0.33	0.67	17.47	0.47	1.30	0.15	0.010	0.008	0.22	0.73	11.24	0.032	0.018	0.22	0.02	45.34	0.004	0.14	0.12	0.18	8.39	1.81	8.11	1.75	0.18	86.87	0.03	0.441	0.011	1.93	0.37	6.62	0.09
2042 Oct	Mean	119.91	142.59	0.02	0.01	0.64	0.06	0.11	0.07	0.01	36.49	0.37	0.80	19.22	0.55	1.48	0.18	0.012	0.010	0.26	0.88	13.45	0.036	0.020	0.26	0.03	49.94	0.005	0.16	0.13	0.20	10.06	1.99	9.04	2.10	0.21	97.85	0.04	0.526	0.012	2.19	0.43	7.58	0.11
2042 Nov	Mean	103.28	122.70	0.02	0.01	0.64	0.06	0.10	0.07	0.00	31.41	0.37	0.69	19.81	0.50	1.42	0.16	0.011	0.008	0.22	0.75	11.56	0.037	0.020	0.22	0.02	51.39	0.005	0.15	0.14	0.20	8.60	2.05	9.07	1.80	0.18	95.96	0.03	0.454	0.012	2.12	0.40	7.28	0.09
2042 Dec	Mean	104.60	124.08	0.03	0.01	0.78	0.06	0.12	0.09	0.00	31.78	0.47	0.69	25.24	0.55	1.67	0.16	0.012	0.008	0.22	0.75	11.67	0.047	0.026	0.23	0.02	65.43	0.005	0.17	0.17	0.25	8.62	2.60	11.20	1.81	0.19	115.58	0.03	0.461	0.015	2.53	0.44	8.75	0.09
2043 Jan	Mean	102.88	121.87	0.03	0.01	0.88	0.06	0.14	0.10	0.00	31.22	0.55	0.68	29.18	0.58	1.85	0.15	0.013	0.008	0.22	0.73	11.44	0.054	0.029	0.22	0.02	75.59	0.005	0.18	0.20	0.28	8.39	3.00	12.71	1.77	0.18	129.12	0.03	0.455	0.017	2.80	0.47	9.78	0.09
2043 Feb	Mean	100.11	118.53	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.37	0.56	0.65	30.14	0.58	1.88	0.15	0.013	0.008	0.21	0.71	11.12	0.055	0.030	0.22	0.02	78.08	0.004	0.18	0.21	0.29	8.13	3.10	13.05	1.72	0.18	131.86	0.03	0.443	0.017	2.85	0.47	9.98	0.09
2043 Mar	Mean	96.73	114.5																																									

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	182.36	217.39	0.02	0.02	0.60	0.09	0.11	0.07	0.01	55.60	0.33	1.24	15.48	0.72	1.73	0.28	0.016	0.015	0.40	1.36	20.57	0.030	0.016	0.39	0.04	40.96	0.008	0.20	0.10	0.18	15.57	1.57	8.27	3.21	0.32	98.28	0.06	0.797	0.014	2.30	0.55	9.51	0.16
2044 Aug	Mean	102.35	121.73	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.15	0.30	0.69	15.56	0.46	1.22	0.16	0.010	0.008	0.22	0.75	11.49	0.029	0.016	0.22	0.02	40.41	0.004	0.14	0.11	0.16	8.60	1.61	7.39	1.79	0.18	80.55	0.03	0.449	0.010	1.81	0.36	6.17	0.09
2044 Sep	Mean	100.62	119.61	0.02	0.01	0.56	0.05	0.09	0.07	0.00	30.61	0.32	0.67	17.11	0.47	1.28	0.15	0.010	0.008	0.22	0.73	11.28	0.032	0.018	0.22	0.02	44.43	0.004	0.14	0.12	0.17	8.42	1.77	7.98	1.76	0.18	85.67	0.03	0.442	0.011	1.91	0.37	6.53	0.09
2044 Oct	Mean	103.19	122.67	0.02	0.01	0.57	0.06	0.10	0.07	0.00	31.40	0.33	0.69	17.40	0.48	1.31	0.16	0.010	0.008	0.22	0.75	11.57	0.032	0.018	0.22	0.02	45.18	0.005	0.14	0.12	0.18	8.63	1.80	8.12	1.80	0.18	87.33	0.03	0.453	0.011	1.95	0.38	6.67	0.09
2044 Nov	Mean	103.69	123.18	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.54	0.37	0.69	19.49	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.61	0.036	0.020	0.22	0.02	50.58	0.005	0.15	0.14	0.20	8.64	2.01	8.95	1.81	0.18	94.91	0.03	0.456	0.012	2.10	0.40	7.20	0.09
2044 Dec	Mean	104.98	124.52	0.03	0.01	0.78	0.06	0.12	0.09	0.00	31.89	0.47	0.69	24.99	0.55	1.66	0.16	0.012	0.008	0.22	0.75	11.71	0.046	0.025	0.23	0.02	64.78	0.005	0.17	0.17	0.24	8.64	2.58	11.11	1.82	0.19	114.75	0.03	0.463	0.015	2.51	0.44	8.69	0.09
2045 Jan	Mean	103.22	122.27	0.03	0.01	0.87	0.06	0.14	0.10	0.00	31.33	0.54	0.68	28.76	0.58	1.83	0.15	0.013	0.008	0.22	0.73	11.48	0.053	0.029	0.22	0.02	74.53	0.005	0.18	0.20	0.28	8.42	2.96	12.55	1.78	0.18	127.70	0.03	0.456	0.016	2.77	0.47	9.67	0.09
2045 Feb	Mean	100.50	118.98	0.03	0.01	0.89	0.06	0.14	0.11	0.00	30.49	0.55	0.66	29.67	0.58	1.85	0.15	0.013	0.008	0.21	0.71	11.17	0.055	0.030	0.22	0.02	76.87	0.004	0.18	0.21	0.28	8.16	3.05	12.87	1.73	0.18	130.25	0.03	0.445	0.017	2.82	0.47	9.86	0.09
2045 Mar	Mean	97.09	114.94	0.03	0.01	0.86	0.06	0.13	0.10	0.00	29.45	0.54	0.64	28.64	0.56	1.79	0.14	0.013	0.008	0.21	0.68	10.79	0.053	0.029	0.21	0.02	74.20	0.004	0.17	0.20	0.27	7.89	2.95	12.43	1.67	0.17	125.74	0.03	0.430	0.016	2.72	0.45	9.52	0.09
2045 Apr	Mean	406.65	484.78	0.05	0.04	1.36	0.20	0.25	0.18	0.02	123.99	0.80	2.77	35.37	1.62	4.08	0.63	0.041	0.034	0.88	3.03	45.87	0.072	0.036	0.88	0.09	94.52	0.018	0.45	0.23	0.41	34.72	3.50	18.53	7.17	0.71	218.90	0.13	1.777	0.034	5.13	1.24	24.63	0.36
2045 May	Mean	5129.21	6125.61	0.35	0.50	9.84	2.33	2.11	1.49	0.23	1565.94	5.41	35.28	171.80	18.05	40.66	8.00	0.492	0.442	11.22	38.72	580.82	0.435	0.176	11.08	1.16	492.15	0.223	4.85	0.90	2.77	443.53	15.38	124.72	90.94	8.94	1759.52	1.71	22.335	0.326	44.28	13.46	265.07	4.47
2045 Jun	Mean	2429.16	2901.51	0.16	0.22	4.29	1.10	0.95	0.63	0.11	741.71	2.18	16.72	66.61	8.43	18.12	3.79	0.218	0.210	5.32	18.36	275.17	0.172	0.071	5.25	0.55	192.54	0.106	2.26	0.34	1.18	210.29	5.99	53.89	43.09	4.23	788.67	0.81	10.574	0.141	20.04	6.24	114.00	2.11
2045 Jul	Mean	132.99	158.45	0.02	0.01	0.49	0.07	0.09	0.06	0.01	40.53	0.26	0.90	13.12	0.54	1.29	0.20	0.011	0.011	0.29	0.99	14.98	0.025	0.014	0.29	0.03	34.34	0.006	0.16	0.09	0.15	11.31	1.36	6.81	2.34	0.23	78.98	0.04	0.582	0.010	1.82	0.41	6.61	0.12
2045 Aug	Mean	102.68	122.13	0.02	0.01	0.51	0.05	0.09	0.06	0.00	31.26	0.29	0.69	15.26	0.46	1.21	0.16	0.009	0.008	0.22	0.75	11.52	0.028	0.016	0.22	0.02	39.63	0.004	0.14	0.11	0.16	8.63	1.58	7.28	1.80	0.18	79.56	0.03	0.451	0.010	1.79	0.36	6.08	0.09
2045 Sep	Mean	112.03	133.22	0.02	0.01	0.59	0.06	0.10	0.07	0.01	34.10	0.34	0.75	17.57	0.51	1.37	0.17	0.011	0.009	0.24	0.82	12.57	0.033	0.018	0.24	0.02	45.66	0.005	0.15	0.13	0.18	9.39	1.81	8.29	1.96	0.20	89.93	0.04	0.492	0.011	2.01	0.40	7.01	0.10
2045 Oct	Mean	127.01	151.10	0.02	0.01	0.62	0.07	0.11	0.07	0.01	38.67	0.36	0.85	18.40	0.57	1.51	0.19	0.013	0.010	0.27	0.93	14.26	0.035	0.019	0.27	0.03	48.02	0.006	0.17	0.13	0.19	10.68	1.89	8.78	2.22	0.22	96.11	0.04	0.557	0.013	2.16	0.44	8.03	0.11
2045 Nov	Mean	103.88	123.40	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.59	0.37	0.69	19.54	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.63	0.036	0.020	0.22	0.02	50.71	0.005	0.15	0.14	0.20	8.65	2.02	8.97	1.81	0.18	95.10	0.03	0.457	0.012	2.11	0.40	7.22	0.09
2045 Dec	Mean	105.18	124.75	0.03	0.01	0.77	0.06	0.12	0.09	0.00	31.95	0.47	0.70	24.81	0.55	1.65	0.16	0.012	0.008	0.22	0.75	11.73	0.046	0.025	0.23	0.02	64.32	0.005	0.17	0.18	0.24	8.66	2.56	11.04	1.82	0.19	114.12	0.03	0.464	0.015	2.50	0.44	8.64	0.09
2046 Jan	Mean	103.54	122.65	0.03	0.01	0.87	0.06	0.14	0.10	0.00	31.42	0.53	0.68	28.45	0.58	1.81	0.15	0.013	0.008	0.22	0.73	11.52	0.052	0.029	0.22	0.02	73.71	0.005	0.18	0.20	0.27	8.44	2.93	12.43	1.78	0.18	126.62	0.03	0.458	0.016	2.75	0.47	9.58	0.09
2046 Feb	Mean	100.81	119.35	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.58	0.55	0.66	29.27	0.58	1.84	0.15	0.013	0.008	0.21	0.71	11.20	0.054	0.030	0.22	0.02	75.84	0.004	0.18	0.21	0.28	8.19	3.01	12.72	1.73	0.18	128.87	0.03	0.446	0.016	2.79	0.47	9.75	0.09
2046 Mar	Mean	97.40	115.31	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.55	0.53	0.64	28.20	0.56	1.77	0.15	0.012	0.008	0.21	0.69	10.82	0.052	0.028	0.21	0.02	73.05	0.004	0.17	0.20	0.27	7.91	2.90	12.26	1.68	0.17	124.20	0.03	0.431	0.016	2.69	0.45	9.40	0.09
2046 Apr	Mean	275.07	327.64	0.04	0.03	1.09	0.14	0.19	0.14	0.01	83.82	0.64	1.86	30.26	1.15	2.99	0.42	0.028	0.023	0.60	2.03	30.97	0.060	0.031	0.59	0.06	80.01	0.012	0.33	0.21	0.33	23.35	3.04	15.07	4.83	0.48	171.53	0.09	1.204	0.025	3.95	0.88	17.37	0.24
2046 May	Mean	5010.53	5983.82	0.35	0.48	9.55	2.28	2.06	1.43	0.22	1529.70	5.16	34.46	164.92	17.61	39.26	7.81	0.473	0.432	10.96	37.82	567.37	0.415	0.171	10.82	1.14	471.62	0.218	4.73	0.89	2.68	433.24	14.87	121.09	88.83	8.73	1713.62	1.67	21.818	0.313	43.14	13.11	252.96	4.36
2046 Jun	Mean	2755.52	3291.37	0.17	0.25	4.80	1.24	1.07	0.70	0.12	841.36	2.42	18.97	73.26	9.54	20.40	4.30	0.246	0.238	6.03	20.83	312.14	0.190	0.078	5.95	0.63	212.23	0.120	2.55	0.38	1.32	238.56	6.58	60.30	48.88	4.80	887.21	0.92	11.995	0.158	22.57	7.06	127.91	2.40
2046 Jul	Mean	180.42	215.06	0.02	0.02	0.59	0.09	0.11	0.07	0.01	55.01	0.32	1.23	15.01	0.71	1.68	0.28	0.016	0.015	0.39	1.34	20.35	0.029	0.016	0.39	0.04	39.66	0.008	0.20	0.10	0.18	15.40	1.53	8.08	3.18	0.32	96.34	0.06	0.788	0.013	2.25	0.54	9.10	0.16
2046 Aug	Mean	104.69	124.51	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.86	0.29	0.70	15.44	0.47	1.23	0.16	0.010	0.009	0.23	0.77	11.75	0.029	0.016	0.23	0.02	40.11	0.005	0.14	0.11	0.16	8.79	1.60	7.37	1.83	0.18	80.66	0.03	0.459	0.010	1.81	0.37	6.19	0.09
2046 Sep	Mean	133.08	158.34																																									

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	104.04	123.26	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.58	0.52	0.68	27.79	0.57	1.78	0.16	0.013	0.008	0.22	0.74	11.58	0.051	0.028	0.22	0.02	72.02	0.005	0.18	0.20	0.27	8.49	2.86	12.18	1.79	0.19	124.39	0.03	0.460	0.016	2.71	0.46	9.41	0.09
2048 Feb	Mean	101.22	119.84	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.71	0.54	0.66	28.82	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.25	0.053	0.029	0.22	0.02	74.67	0.004	0.18	0.21	0.28	8.22	2.97	12.55	1.74	0.18	127.33	0.03	0.448	0.016	2.76	0.46	9.63	0.09
2048 Mar	Mean	97.70	115.67	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.64	0.52	0.64	27.86	0.55	1.76	0.15	0.012	0.008	0.21	0.69	10.85	0.051	0.028	0.21	0.02	72.19	0.004	0.17	0.20	0.27	7.94	2.87	12.13	1.68	0.17	123.06	0.03	0.432	0.016	2.67	0.45	9.31	0.09
2048 Apr	Mean	265.49	316.19	0.04	0.03	1.08	0.13	0.19	0.14	0.01	80.89	0.64	1.80	30.12	1.12	2.95	0.41	0.028	0.022	0.58	1.96	29.88	0.060	0.031	0.57	0.06	79.70	0.012	0.32	0.21	0.33	22.51	3.02	14.87	4.66	0.47	168.35	0.09	1.162	0.025	3.87	0.86	17.41	0.23
2048 May	Mean	4970.63	5936.27	0.34	0.47	9.36	2.26	2.03	1.40	0.22	1517.54	5.01	34.19	159.46	17.44	38.65	7.75	0.465	0.428	10.87	37.52	562.87	0.403	0.166	10.73	1.13	456.58	0.216	4.68	0.86	2.62	429.84	14.38	118.64	88.13	8.66	1687.03	1.65	21.644	0.307	42.52	12.97	248.01	4.33
2048 Jun	Mean	2811.71	3358.53	0.18	0.26	4.88	1.27	1.09	0.73	0.12	858.53	2.50	19.36	74.20	9.73	20.95	4.39	0.255	0.243	6.15	21.25	318.52	0.196	0.079	6.07	0.64	215.99	0.122	2.60	0.38	1.34	243.44	6.58	61.10	49.88	4.90	900.51	0.94	12.239	0.164	22.95	7.21	133.10	2.45
2048 Jul	Mean	118.56	141.24	0.02	0.01	0.44	0.06	0.08	0.05	0.01	36.13	0.24	0.80	11.96	0.49	1.16	0.18	0.010	0.010	0.26	0.88	13.35	0.023	0.013	0.26	0.03	31.25	0.005	0.14	0.09	0.13	10.07	1.24	6.18	2.08	0.21	71.46	0.04	0.519	0.009	1.65	0.37	5.82	0.10
2048 Aug	Mean	112.62	133.98	0.02	0.01	0.54	0.06	0.09	0.06	0.01	34.29	0.30	0.76	15.78	0.50	1.29	0.17	0.010	0.009	0.24	0.82	12.65	0.029	0.016	0.24	0.02	41.03	0.005	0.15	0.12	0.17	9.47	1.63	7.61	1.97	0.20	83.77	0.04	0.494	0.011	1.89	0.39	6.49	0.10
2048 Sep	Mean	137.81	163.98	0.02	0.01	0.64	0.07	0.11	0.08	0.01	41.96	0.37	0.93	18.63	0.60	1.60	0.21	0.014	0.011	0.30	1.01	15.48	0.035	0.019	0.30	0.03	48.75	0.006	0.18	0.13	0.20	11.61	1.91	8.98	2.41	0.24	99.19	0.05	0.604	0.013	2.25	0.47	8.67	0.12
2048 Oct	Mean	124.16	147.68	0.02	0.01	0.61	0.06	0.10	0.07	0.01	37.79	0.35	0.83	18.17	0.56	1.45	0.19	0.012	0.010	0.27	0.91	13.93	0.034	0.019	0.27	0.03	47.24	0.005	0.16	0.13	0.19	10.43	1.88	8.69	2.17	0.22	95.08	0.04	0.545	0.012	2.14	0.43	7.39	0.11
2048 Nov	Mean	137.95	164.05	0.03	0.01	0.70	0.07	0.12	0.08	0.01	41.99	0.41	0.93	21.00	0.63	1.68	0.21	0.014	0.011	0.30	1.01	15.48	0.039	0.022	0.30	0.03	54.73	0.006	0.18	0.15	0.22	11.58	2.16	9.93	2.41	0.24	108.09	0.05	0.605	0.014	2.43	0.49	8.85	0.12
2048 Dec	Mean	105.58	125.22	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.07	0.46	0.70	24.38	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.78	0.045	0.025	0.23	0.02	63.21	0.005	0.17	0.18	0.24	8.69	2.51	10.87	1.83	0.19	112.67	0.03	0.466	0.014	2.47	0.44	8.53	0.09
2049 Jan	Mean	103.87	123.04	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.52	0.52	0.68	28.04	0.57	1.79	0.16	0.013	0.008	0.22	0.73	11.55	0.052	0.028	0.22	0.02	72.66	0.005	0.18	0.20	0.27	8.47	2.89	12.28	1.79	0.19	125.23	0.03	0.459	0.016	2.72	0.46	9.48	0.09
2049 Feb	Mean	101.15	119.76	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.69	0.54	0.66	28.90	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.24	0.053	0.029	0.22	0.02	74.86	0.004	0.18	0.21	0.28	8.22	2.97	12.57	1.74	0.18	127.58	0.03	0.448	0.016	2.77	0.46	9.65	0.09
2049 Mar	Mean	97.69	115.66	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.64	0.52	0.64	27.86	0.55	1.76	0.15	0.012	0.008	0.21	0.69	10.85	0.051	0.028	0.21	0.02	72.18	0.004	0.17	0.20	0.27	7.94	2.87	12.13	1.68	0.17	123.05	0.03	0.432	0.016	2.67	0.45	9.31	0.09
2049 Apr	Mean	310.10	369.45	0.04	0.03	1.17	0.15	0.21	0.15	0.01	94.51	0.69	2.10	31.92	1.27	3.30	0.48	0.032	0.026	0.67	2.30	34.93	0.064	0.032	0.67	0.07	84.67	0.014	0.36	0.22	0.36	26.36	3.19	16.10	5.45	0.54	185.05	0.10	1.356	0.028	4.28	0.98	19.49	0.27
2049 May	Mean	4875.39	5822.87	0.32	0.47	9.02	2.21	1.96	1.38	0.21	1488.53	4.92	33.54	150.73	17.05	38.12	7.60	0.466	0.420	10.67	36.82	552.15	0.392	0.155	10.53	1.11	435.62	0.212	4.57	0.78	2.52	421.78	13.31	113.56	86.46	8.50	1626.65	1.62	21.227	0.305	41.16	12.69	249.53	4.25
2049 Jun	Mean	2993.53	3575.61	0.19	0.28	5.28	1.35	1.17	0.79	0.13	914.03	2.74	20.61	82.17	10.39	22.53	4.67	0.274	0.258	6.55	22.62	339.09	0.215	0.087	6.46	0.68	238.55	0.130	2.78	0.42	1.46	259.13	7.30	66.19	53.10	5.22	968.72	1.00	13.031	0.177	24.64	7.70	143.81	2.61
2049 Jul	Mean	106.04	126.29	0.02	0.01	0.41	0.05	0.07	0.05	0.00	32.31	0.22	0.72	11.28	0.44	1.05	0.16	0.009	0.009	0.23	0.78	11.94	0.021	0.012	0.23	0.02	29.39	0.005	0.13	0.08	0.12	8.99	1.17	5.77	1.86	0.19	66.17	0.04	0.464	0.008	1.52	0.34	5.17	0.09
2049 Aug	Mean	102.75	122.20	0.02	0.01	0.51	0.05	0.09	0.06	0.00	31.27	0.29	0.69	15.14	0.46	1.20	0.16	0.009	0.008	0.22	0.75	11.53	0.028	0.016	0.22	0.02	39.33	0.004	0.14	0.11	0.16	8.63	1.57	7.23	1.80	0.18	79.13	0.03	0.451	0.010	1.78	0.36	6.05	0.09
2049 Sep	Mean	101.07	120.15	0.02	0.01	0.54	0.05	0.09	0.06	0.00	30.75	0.31	0.68	16.39	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.33	0.030	0.017	0.22	0.02	42.57	0.004	0.14	0.12	0.17	8.46	1.70	7.70	1.76	0.18	83.18	0.03	0.444	0.011	1.86	0.36	6.34	0.09
2049 Oct	Mean	142.07	169.09	0.02	0.01	0.63	0.07	0.11	0.08	0.01	43.27	0.36	0.96	18.23	0.62	1.58	0.22	0.013	0.012	0.31	1.04	15.97	0.034	0.019	0.31	0.03	47.61	0.006	0.18	0.13	0.19	11.99	1.87	8.90	2.49	0.25	99.16	0.05	0.623	0.013	2.25	0.48	8.31	0.12
2049 Nov	Mean	105.69	125.58	0.02	0.01	0.61	0.06	0.10	0.07	0.00	32.15	0.35	0.71	18.69	0.50	1.38	0.16	0.010	0.009	0.23	0.77	11.84	0.035	0.019	0.23	0.02	48.50	0.005	0.15	0.14	0.19	8.81	1.93	8.66	1.84	0.19	92.49	0.03	0.465	0.012	2.06	0.39	7.03	0.09
2049 Dec	Mean	105.70	125.39	0.03	0.01	0.75	0.06	0.12	0.09	0.00	32.11	0.45	0.70	24.06	0.55	1.62	0.16	0.012	0.008	0.23	0.76	11.79	0.044	0.024	0.23	0.02	62.38	0.005	0.17	0.17	0.24	8.71	2.48	10.75	1.83	0.19	111.57	0.03	0.466	0.014	2.45	0.44	8.44	0.09
2050 Jan	Mean	104.06	123.27	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.58	0.52	0.68	27.93	0.57	1.79	0.16	0.013	0.008	0.22	0.74	11.58	0.051	0.028	0.22	0.02	72.37	0.005	0.18	0.20	0.27	8.49	2.88	12.24	1.79	0.19	124.88	0.03	0.460	0.016	2.72	0.46	9.45	0.09
2050 Feb	Mean	101.24	119.86	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.71	0.54	0.66	28.89	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.25	0.053	0.029	0.22	0.02	74.85	0.004	0.18	0.21	0.28	8.23	2.97	12.57	1.74	0.18	127.59	0.03	0.448	0.016	2.77	0.46	9.65	0.09
2050 Mar	Mean	97.67	115.6																																									

Table A-7
Monthly WQ Report for Scenario A.2.c - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	129.33	154.07	0.02	0.01	0.48	0.06	0.09	0.05	0.01	39.41	0.25	0.88	12.73	0.53	1.24	0.20	0.011	0.011	0.28	0.96	14.57	0.024	0.013	0.28	0.03	33.27	0.006	0.15	0.09	0.14	10.99	1.32	6.62	2.27	0.23	76.86	0.04	0.566	0.010	1.77	0.40	6.25	0.11
2051 Aug	Mean	105.50	125.48	0.02	0.01	0.52	0.05	0.09	0.06	0.00	32.11	0.29	0.71	15.32	0.47	1.23	0.16	0.010	0.009	0.23	0.77	11.84	0.028	0.016	0.23	0.02	39.82	0.005	0.14	0.11	0.16	8.86	1.59	7.34	1.84	0.19	80.45	0.03	0.463	0.010	1.81	0.37	6.18	0.09
2051 Sep	Mean	151.65	180.51	0.02	0.01	0.67	0.08	0.12	0.08	0.01	46.19	0.38	1.02	19.07	0.65	1.70	0.23	0.015	0.013	0.33	1.12	17.05	0.037	0.020	0.33	0.03	50.00	0.007	0.19	0.14	0.20	12.81	1.95	9.30	2.66	0.27	103.89	0.05	0.664	0.014	2.36	0.50	9.34	0.13
2051 Oct	Mean	110.71	131.63	0.02	0.01	0.58	0.06	0.10	0.07	0.01	33.69	0.33	0.74	17.31	0.51	1.34	0.17	0.010	0.009	0.24	0.81	12.42	0.032	0.018	0.24	0.02	44.96	0.005	0.15	0.13	0.18	9.28	1.79	8.18	1.93	0.20	88.83	0.04	0.486	0.011	1.99	0.39	6.78	0.10
2051 Nov	Mean	104.10	123.66	0.02	0.01	0.62	0.06	0.10	0.07	0.00	31.66	0.36	0.69	19.15	0.50	1.39	0.16	0.011	0.008	0.22	0.75	11.65	0.035	0.020	0.22	0.02	49.69	0.005	0.15	0.14	0.19	8.67	1.98	8.82	1.81	0.18	93.74	0.03	0.458	0.012	2.08	0.39	7.11	0.09
2051 Dec	Mean	105.41	125.02	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.02	0.46	0.70	24.51	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.76	0.045	0.025	0.23	0.02	63.53	0.005	0.17	0.18	0.24	8.68	2.53	10.92	1.82	0.19	113.09	0.03	0.465	0.014	2.48	0.44	8.56	0.09
2052 Jan	Mean	103.80	122.96	0.03	0.01	0.86	0.06	0.14	0.10	0.00	31.50	0.53	0.68	28.17	0.58	1.80	0.16	0.013	0.008	0.22	0.73	11.55	0.052	0.028	0.22	0.02	72.98	0.005	0.18	0.20	0.27	8.46	2.90	12.33	1.79	0.19	125.66	0.03	0.459	0.016	2.73	0.46	9.51	0.09
2052 Feb	Mean	101.04	119.62	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.65	0.54	0.66	29.03	0.57	1.83	0.15	0.013	0.008	0.21	0.71	11.23	0.053	0.029	0.22	0.02	75.22	0.004	0.18	0.21	0.28	8.21	2.99	12.63	1.74	0.18	128.05	0.03	0.447	0.016	2.78	0.46	9.69	0.09
2052 Mar	Mean	97.63	115.58	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.62	0.52	0.64	28.08	0.55	1.77	0.15	0.012	0.008	0.21	0.69	10.85	0.052	0.028	0.21	0.02	72.75	0.004	0.17	0.20	0.27	7.93	2.89	12.21	1.68	0.17	123.82	0.03	0.432	0.016	2.68	0.45	9.37	0.09
2052 Apr	Mean	204.61	243.44	0.04	0.02	1.00	0.11	0.17	0.13	0.01	62.30	0.61	1.38	29.67	0.91	2.57	0.31	0.023	0.017	0.44	1.50	22.98	0.058	0.030	0.44	0.04	78.13	0.009	0.27	0.20	0.31	17.23	2.98	13.97	3.58	0.36	152.61	0.07	0.897	0.022	3.45	0.71	15.19	0.18
2052 May	Mean	4658.41	5563.55	0.32	0.45	8.76	2.11	1.89	1.35	0.21	1422.25	4.83	32.04	149.60	16.34	36.79	7.26	0.449	0.402	10.19	35.17	527.55	0.386	0.153	10.06	1.06	431.20	0.203	4.38	0.78	2.46	402.92	13.23	110.55	82.60	8.12	1572.33	1.55	20.283	0.295	39.70	12.17	241.65	4.06
2052 Jun	Mean	2114.41	2525.58	0.13	0.19	3.69	0.95	0.82	0.54	0.09	645.61	1.87	14.56	56.48	7.33	15.70	3.30	0.190	0.183	4.63	15.98	239.52	0.147	0.060	4.57	0.48	163.70	0.092	1.96	0.29	1.02	183.05	5.06	46.33	37.51	3.68	681.16	0.70	9.204	0.122	17.33	5.42	98.75	1.84
2052 Jul	Mean	153.40	182.83	0.02	0.01	0.52	0.07	0.10	0.06	0.01	46.76	0.28	1.04	13.44	0.61	1.46	0.24	0.014	0.013	0.33	1.14	17.29	0.026	0.014	0.33	0.03	35.46	0.007	0.17	0.09	0.16	13.08	1.37	7.14	2.70	0.27	84.36	0.05	0.670	0.012	1.97	0.46	7.88	0.13
2052 Aug	Mean	102.56	121.97	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.22	0.29	0.69	15.29	0.46	1.21	0.16	0.010	0.008	0.22	0.75	11.51	0.028	0.016	0.22	0.02	39.72	0.004	0.14	0.11	0.16	8.61	1.58	7.29	1.79	0.18	79.61	0.03	0.450	0.010	1.79	0.36	6.10	0.09
2052 Sep	Mean	150.02	178.41	0.03	0.01	0.77	0.08	0.13	0.09	0.01	45.66	0.45	1.01	22.93	0.68	1.84	0.23	0.015	0.012	0.32	1.10	16.83	0.043	0.023	0.32	0.03	59.79	0.007	0.20	0.16	0.24	12.59	2.35	10.83	2.62	0.26	117.75	0.05	0.658	0.016	2.64	0.53	9.78	0.13
2052 Oct	Mean	101.12	120.21	0.02	0.01	0.54	0.05	0.09	0.06	0.00	30.77	0.31	0.68	16.42	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.34	0.030	0.017	0.22	0.02	42.63	0.004	0.14	0.12	0.17	8.46	1.70	7.71	1.76	0.18	83.29	0.03	0.444	0.011	1.86	0.36	6.35	0.09
2052 Nov	Mean	141.46	168.18	0.03	0.02	0.77	0.08	0.13	0.09	0.01	43.05	0.46	0.95	23.32	0.66	1.86	0.22	0.016	0.012	0.30	1.03	15.86	0.044	0.024	0.31	0.03	61.02	0.006	0.19	0.16	0.24	11.84	2.37	10.82	2.47	0.25	116.28	0.05	0.621	0.016	2.60	0.52	10.45	0.12
2052 Dec	Mean	105.40	125.01	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.02	0.46	0.70	24.55	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.76	0.045	0.025	0.23	0.02	63.65	0.005	0.17	0.18	0.24	8.67	2.53	10.94	1.82	0.19	113.24	0.03	0.465	0.014	2.48	0.44	8.57	0.09
2053 Jan	Mean	103.75	122.89	0.03	0.01	0.86	0.06	0.14	0.10	0.00	31.49	0.53	0.68	28.22	0.58	1.80	0.16	0.013	0.008	0.22	0.73	11.54	0.052	0.029	0.22	0.02	73.12	0.005	0.18	0.20	0.27	8.46	2.91	12.35	1.79	0.18	125.84	0.03	0.459	0.016	2.73	0.46	9.52	0.09
2053 Feb	Mean	100.96	119.53	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.63	0.54	0.66	29.07	0.57	1.83	0.15	0.013	0.008	0.21	0.71	11.22	0.054	0.029	0.22	0.02	75.31	0.004	0.18	0.21	0.28	8.20	2.99	12.64	1.74	0.18	128.16	0.03	0.447	0.016	2.78	0.46	9.70	0.09
2053 Mar	Mean	97.52	115.46	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.58	0.52	0.64	28.08	0.55	1.77	0.15	0.012	0.008	0.21	0.69	10.83	0.052	0.028	0.21	0.02	72.75	0.004	0.17	0.20	0.27	7.92	2.89	12.21	1.68	0.17	123.80	0.03	0.432	0.016	2.68	0.45	9.37	0.09
2053 Apr	Mean	309.45	368.75	0.04	0.03	1.12	0.15	0.20	0.15	0.01	94.32	0.67	2.10	30.29	1.26	3.27	0.48	0.033	0.026	0.67	2.30	34.87	0.061	0.031	0.67	0.07	80.70	0.014	0.36	0.20	0.34	26.35	3.00	15.40	5.45	0.54	178.35	0.10	1.353	0.028	4.14	0.97	19.80	0.27
2053 May	Mean	5508.48	6579.15	0.36	0.53	10.13	2.50	2.20	1.56	0.24	1681.85	5.56	37.90	168.37	19.25	43.13	8.59	0.529	0.475	12.05	41.61	623.88	0.441	0.173	11.90	1.25	487.96	0.240	5.15	0.86	2.83	476.62	14.77	127.38	97.69	9.60	1828.67	1.83	23.982	0.345	46.32	14.33	283.81	4.80
2053 Jun	Mean	1825.96	2181.03	0.12	0.17	3.19	0.82	0.71	0.47	0.08	557.53	1.61	12.57	48.78	6.33	13.51	2.85	0.163	0.158	4.00	13.80	206.84	0.126	0.052	3.94	0.42	141.16	0.079	1.69	0.25	0.88	158.08	4.39	40.07	32.39	3.18	589.01	0.61	7.949	0.105	14.98	4.68	84.57	1.59
2053 Jul	Mean	105.35	125.44	0.02	0.01	0.43	0.05	0.08	0.05	0.00	32.09	0.23	0.71	11.91	0.44	1.07	0.16	0.009	0.009	0.23	0.78	11.85	0.022	0.012	0.23	0.02	31.02	0.005	0.13	0.09	0.13	8.92	1.24	6.01	1.85	0.19	68.29	0.03	0.461	0.009	1.56	0.34	5.30	0.09
2053 Aug	Mean	112.26	133.53	0.02	0.01	0.55	0.06	0.09	0.06	0.01	34.17	0.31	0.75	16.34	0.50	1.31	0.17	0.010	0.009	0.24	0.82	12.60	0.030	0.017	0.24	0.02	42.49	0.005	0.15	0.12	0.17	9.43	1.69	7.82	1.96	0.20	85.69	0.04	0.493	0.011	1.93	0.39	6.64	0.10
2053 Sep	Mean	144.28	171.69</																																									

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ulimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2020 Jan	Mean	122.33	146.21	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.37	0.01	0.85	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.88	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.64	0.03	1.63	2.17	0.21	30.56	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.49	149.99	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.33	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.28	0.95	14.24	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.91	0.04	1.77	2.23	0.22	31.71	0.04	0.546	0.003	0.84	0.29	2.34	0.11
2020 Mar	Mean	116.58	139.33	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.61	0.01	0.81	0.08	0.38	0.58	0.18	0.006	0.010	0.26	0.89	13.22	0.000	0.001	0.25	0.03	0.39	0.005	0.10	0.00	0.03	10.14	0.04	1.75	2.07	0.20	29.81	0.04	0.507	0.003	0.78	0.27	2.20	0.10
2020 Apr	Mean	109.43	130.80	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.43	0.01	0.76	0.07	0.36	0.55	0.17	0.006	0.010	0.24	0.83	12.41	0.000	0.001	0.24	0.03	0.39	0.005	0.10	0.00	0.03	9.52	0.03	1.63	1.95	0.19	27.97	0.04	0.476	0.003	0.73	0.25	2.14	0.10
2020 May	Mean	113.27	135.38	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.60	0.01	0.78	0.09	0.37	0.57	0.18	0.006	0.010	0.25	0.86	12.85	0.000	0.001	0.24	0.03	0.44	0.005	0.10	0.00	0.03	9.85	0.04	1.74	2.01	0.20	29.12	0.04	0.492	0.003	0.76	0.26	2.24	0.10
2020 Jun	Mean	114.85	137.28	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.09	0.01	0.79	0.13	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.03	0.000	0.001	0.25	0.03	0.53	0.005	0.10	0.00	0.03	9.99	0.04	1.93	2.04	0.20	30.08	0.04	0.499	0.003	0.78	0.27	2.21	0.10
2020 Jul	Mean	115.39	137.92	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.25	0.01	0.80	0.18	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.09	0.001	0.001	0.25	0.03	0.65	0.005	0.10	0.00	0.03	10.04	0.05	2.11	2.05	0.20	30.82	0.04	0.502	0.003	0.79	0.27	2.22	0.10
2020 Aug	Mean	115.63	138.21	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.32	0.02	0.80	0.20	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.12	0.001	0.001	0.25	0.03	0.71	0.005	0.10	0.00	0.03	10.06	0.05	2.20	2.06	0.20	31.18	0.04	0.503	0.003	0.79	0.27	2.22	0.10
2020 Sep	Mean	115.40	137.93	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.25	0.02	0.80	0.21	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.09	0.001	0.001	0.25	0.03	0.73	0.005	0.10	0.00	0.03	10.04	0.05	2.24	2.05	0.20	31.27	0.04	0.502	0.003	0.79	0.27	2.21	0.10
2020 Oct	Mean	115.34	137.85	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.23	0.02	0.80	0.24	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.08	0.001	0.001	0.25	0.03	0.82	0.005	0.10	0.00	0.03	10.03	0.05	2.36	2.05	0.20	31.68	0.04	0.501	0.003	0.79	0.27	2.22	0.10
2020 Nov	Mean	117.89	140.91	0.01	0.01	0.14	0.05	0.04	0.02	0.01	36.01	0.02	0.81	0.35	0.39	0.60	0.18	0.006	0.010	0.26	0.90	13.37	0.001	0.001	0.25	0.03	1.10	0.005	0.10	0.00	0.03	10.25	0.07	2.81	2.10	0.21	33.72	0.04	0.513	0.003	0.82	0.28	2.31	0.10
2020 Dec	Mean	123.45	147.55	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.71	0.02	0.85	0.61	0.41	0.64	0.19	0.007	0.011	0.27	0.94	14.00	0.001	0.002	0.27	0.03	1.76	0.005	0.11	0.00	0.04	10.74	0.09	3.85	2.19	0.21	38.43	0.04	0.537	0.004	0.89	0.29	2.47	0.11
2021 Jan	Mean	126.56	151.27	0.01	0.01	0.16	0.06	0.04	0.03	0.01	38.66	0.03	0.87	1.07	0.42	0.67	0.20	0.007	0.011	0.28	0.96	14.36	0.002	0.002	0.27	0.03	2.94	0.006	0.11	0.00	0.04	11.01	0.14	5.62	2.25	0.22	45.17	0.04	0.550	0.004	0.97	0.30	2.65	0.11
2021 Feb	Mean	122.94	146.94	0.01	0.01	0.17	0.05	0.04	0.03	0.01	37.56	0.04	0.85	1.48	0.41	0.68	0.19	0.007	0.011	0.27	0.93	13.95	0.003	0.003	0.27	0.03	3.97	0.005	0.11	0.00	0.04	10.69	0.18	7.12	2.19	0.21	49.56	0.04	0.534	0.004	0.99	0.30	2.69	0.11
2021 Mar	Mean	113.20	135.31	0.01	0.01	0.15	0.05	0.04	0.03	0.00	34.58	0.03	0.78	1.03	0.38	0.61	0.18	0.006	0.010	0.25	0.86	12.84	0.002	0.002	0.24	0.03	2.82	0.005	0.10	0.00	0.04	9.85	0.13	5.29	2.01	0.20	41.31	0.04	0.492	0.004	0.87	0.27	2.45	0.10
2021 Apr	Mean	107.79	128.89	0.01	0.01	0.13	0.05	0.04	0.02	0.00	32.94	0.02	0.75	0.41	0.36	0.56	0.17	0.006	0.009	0.24	0.82	12.24	0.001	0.001	0.23	0.02	1.25	0.005	0.09	0.00	0.03	9.40	0.07	2.84	1.92	0.19	31.86	0.04	0.468	0.003	0.76	0.25	2.37	0.09
2021 May	Mean	112.18	134.14	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.28	0.02	0.78	0.33	0.37	0.59	0.18	0.007	0.010	0.25	0.86	12.74	0.001	0.001	0.24	0.03	1.06	0.005	0.10	0.00	0.03	9.79	0.06	2.56	2.00	0.19	31.84	0.04	0.487	0.003	0.78	0.26	2.52	0.10
2021 Jun	Mean	114.29	136.63	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.92	0.02	0.79	0.54	0.38	0.59	0.18	0.006	0.010	0.25	0.87	12.97	0.001	0.002	0.25	0.03	1.57	0.005	0.10	0.00	0.03	9.95	0.08	3.43	2.03	0.20	35.16	0.04	0.497	0.003	0.82	0.27	2.39	0.10
2021 Jul	Mean	114.82	137.25	0.01	0.01	0.15	0.05	0.04	0.02	0.01	35.08	0.03	0.79	0.86	0.38	0.61	0.18	0.006	0.010	0.25	0.87	13.03	0.002	0.002	0.25	0.03	2.37	0.005	0.10	0.00	0.04	9.99	0.11	4.65	2.04	0.20	39.43	0.04	0.499	0.004	0.86	0.27	2.41	0.10
2021 Aug	Mean	114.90	137.34	0.01	0.01	0.15	0.05	0.04	0.03	0.01	35.10	0.03	0.79	1.10	0.38	0.62	0.18	0.006	0.010	0.25	0.87	13.04	0.002	0.002	0.25	0.03	2.99	0.005	0.10	0.00	0.04	9.99	0.14	5.58	2.04	0.20	42.63	0.04	0.500	0.004	0.89	0.28	2.46	0.10
2021 Sep	Mean	114.44	136.79	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.96	0.04	0.79	1.32	0.38	0.63	0.18	0.006	0.010	0.25	0.87	12.98	0.003	0.003	0.25	0.03	3.55	0.005	0.10	0.00	0.04	9.95	0.16	6.40	2.03	0.20	45.37	0.04	0.498	0.004	0.92	0.28	2.51	0.10
2021 Oct	Mean	114.16	136.45	0.01	0.01	0.17	0.05	0.04	0.03	0.01	34.87	0.04	0.79	1.63	0.39	0.64	0.18	0.007	0.010	0.25	0.87	12.95	0.003	0.003	0.25	0.03	4.32	0.005	0.10	0.00	0.04	9.93	0.19	7.53	2.03	0.20	49.21	0.04	0.496	0.004	0.95	0.28	2.59	0.10
2021 Nov	Mean	116.57	139.34	0.01	0.01	0.18	0.05	0.04	0.04	0.01	35.61	0.05	0.81	2.18	0.40	0.68	0.18	0.007	0.010	0.26	0.89	13.23	0.004	0.004	0.25	0.03	5.73	0.005	0.10	0.00	0.05	10.14	0.25	9.64	2.07	0.20	56.95	0.04	0.507	0.004	1.03	0.29	2.81	0.10
2021 Dec	Mean	121.52	145.25	0.01	0.01	0.22	0.06	0.05	0.06	0.01	37.12	0.07	0.84	3.40	0.43	0.76	0.19	0.007	0.011	0.27	0.92	13.79	0.006	0.006	0.26	0.03	8.83	0.005	0.11	0.00	0.06	10.57	0.37	14.28	2.16	0.21	73.92	0.04	0.528	0.005	1.21	0.31	3.21	0.11
2022 Jan	Mean	122.84	146.83	0.01	0.01	0.27	0.06	0.06	0.08	0.01	37.53	0.11	0.85	5.24	0.45	0.85	0.19	0.008	0.011	0.27	0.93	13.94	0.010	0.008	0.27	0.03	13.49	0.005	0.11	0.00	0.08	10.68	0.55	17.74	2.18	0.21	86.06	0.04	0.534	0.006	1.44	0.33	3.74	0.11
2022 Feb	Mean	118.35	141.46	0.01	0.01	0.30	0.06	0.06	0.08	0.01	36.15	0.13	0.82	6.59	0.44	0.90	0.19	0.008	0.010	0.26	0.90	13.43	0.012	0.010	0.26	0.03	16.91	0.005	0.10	0.00	0.09	10.29	0.69	18.86	2.10	0.21	89.01	0.04	0.515	0.006	1.58	0.33	4.03	0.10
2022 Mar	Mean	109.54	130.94	0.01	0.01	0.25	0.05	0.05	0.06	0.00	33.47	0.11	0.76	5.22	0.40	0.79	0.17	0.007																										

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2023 Nov	Mean	109.78	131.23	0.01	0.01	0.38	0.05	0.07	0.13	0.00	33.54	0.19	0.76	9.99	0.44	1.02	0.17	0.009	0.010	0.24	0.83	12.46	0.018	0.015	0.24	0.03	25.51	0.005	0.10	0.00	0.11	9.56	1.03	30.04	1.95	0.19	125.76	0.04	0.477	0.008	1.93	0.33	4.90	0.10
2023 Dec	Mean	114.53	136.90	0.02	0.01	0.44	0.06	0.08	0.15	0.01	34.99	0.23	0.79	12.00	0.48	1.14	0.18	0.010	0.010	0.25	0.87	12.99	0.022	0.018	0.25	0.03	30.61	0.005	0.10	0.00	0.13	9.97	1.23	35.89	2.04	0.20	146.80	0.04	0.498	0.009	2.20	0.36	5.49	0.10
2024 Jan	Mean	114.53	136.90	0.02	0.01	0.52	0.06	0.09	0.21	0.01	34.99	0.29	0.79	15.29	0.51	1.29	0.18	0.010	0.010	0.25	0.87	12.99	0.028	0.022	0.25	0.03	38.94	0.005	0.25	0.00	0.16	9.96	1.56	49.60	2.04	0.20	193.94	0.04	0.498	0.010	2.59	0.39	6.35	0.10
2024 Feb	Mean	107.04	127.94	0.02	0.01	0.53	0.06	0.09	0.23	0.00	32.70	0.30	0.74	15.92	0.49	1.28	0.17	0.010	0.009	0.23	0.81	12.14	0.029	0.023	0.23	0.02	40.52	0.005	0.40	0.00	0.16	9.31	1.62	55.70	1.90	0.19	213.40	0.04	0.465	0.010	2.62	0.38	6.40	0.09
2024 Mar	Mean	103.72	124.01	0.01	0.01	0.38	0.05	0.07	0.16	0.00	31.69	0.20	0.72	10.48	0.43	1.02	0.16	0.009	0.009	0.23	0.79	11.77	0.019	0.015	0.22	0.02	26.77	0.005	0.31	0.00	0.12	9.04	1.07	37.56	1.85	0.18	150.44	0.03	0.451	0.008	1.94	0.32	5.15	0.09
2024 Apr	Mean	99.96	119.64	0.01	0.01	0.23	0.05	0.05	0.08	0.00	30.57	0.10	0.70	4.84	0.37	0.78	0.16	0.008	0.009	0.22	0.77	11.37	0.010	0.007	0.22	0.02	12.56	0.004	0.19	0.00	0.07	8.77	0.50	17.77	1.79	0.17	81.83	0.03	0.434	0.006	1.24	0.27	4.27	0.09
2024 May	Mean	104.31	124.87	0.01	0.01	0.21	0.05	0.05	0.07	0.00	31.90	0.09	0.73	3.82	0.38	0.76	0.16	0.009	0.009	0.23	0.80	11.87	0.008	0.006	0.23	0.02	10.01	0.005	0.17	0.00	0.06	9.17	0.40	14.23	1.86	0.18	70.63	0.03	0.452	0.006	1.15	0.27	4.25	0.09
2024 Jun	Mean	108.21	129.40	0.01	0.01	0.28	0.05	0.06	0.10	0.00	33.07	0.13	0.75	6.31	0.41	0.86	0.17	0.008	0.009	0.24	0.83	12.29	0.012	0.010	0.23	0.02	16.22	0.005	0.23	0.00	0.08	9.45	0.65	23.11	1.93	0.19	101.71	0.04	0.470	0.006	1.47	0.30	4.26	0.09
2024 Jul	Mean	107.39	128.38	0.01	0.01	0.37	0.05	0.07	0.15	0.00	32.81	0.19	0.74	9.68	0.43	1.00	0.17	0.009	0.009	0.24	0.82	12.19	0.018	0.014	0.23	0.02	24.74	0.005	0.30	0.00	0.11	9.35	0.99	34.91	1.91	0.19	142.01	0.04	0.467	0.008	1.87	0.33	4.86	0.09
2024 Aug	Mean	106.13	126.86	0.02	0.01	0.42	0.05	0.08	0.18	0.00	32.42	0.22	0.73	11.71	0.45	1.08	0.17	0.009	0.009	0.23	0.81	12.04	0.021	0.017	0.23	0.02	29.88	0.005	0.34	0.00	0.13	9.24	1.20	41.96	1.89	0.18	165.97	0.04	0.461	0.008	2.11	0.34	5.32	0.09
2024 Sep	Mean	104.98	125.48	0.02	0.01	0.44	0.05	0.08	0.19	0.00	32.07	0.24	0.73	12.66	0.45	1.12	0.16	0.009	0.009	0.23	0.80	11.91	0.023	0.019	0.23	0.02	32.27	0.005	0.36	0.00	0.14	9.13	1.29	45.25	1.87	0.18	177.04	0.04	0.456	0.009	2.21	0.34	5.51	0.09
2024 Oct	Mean	104.52	124.94	0.02	0.01	0.44	0.05	0.08	0.19	0.00	31.93	0.24	0.72	12.76	0.45	1.12	0.16	0.009	0.009	0.23	0.79	11.86	0.023	0.019	0.23	0.02	32.51	0.005	0.36	0.00	0.14	9.10	1.30	45.56	1.86	0.18	178.01	0.03	0.454	0.009	2.22	0.34	5.56	0.09
2024 Nov	Mean	106.73	127.59	0.02	0.01	0.45	0.05	0.08	0.19	0.00	32.61	0.24	0.74	12.72	0.46	1.14	0.17	0.010	0.009	0.23	0.81	12.11	0.023	0.019	0.23	0.02	32.43	0.005	0.36	0.00	0.14	9.30	1.30	45.42	1.90	0.19	178.05	0.04	0.464	0.009	2.23	0.35	5.69	0.09
2024 Dec	Mean	109.05	130.36	0.02	0.01	0.52	0.06	0.09	0.23	0.00	33.32	0.29	0.75	15.49	0.49	1.28	0.17	0.010	0.009	0.24	0.83	12.37	0.028	0.022	0.24	0.03	39.44	0.005	0.42	0.00	0.16	9.49	1.58	55.08	1.94	0.19	211.69	0.04	0.474	0.010	2.58	0.38	6.39	0.09
2025 Jan	Mean	112.19	134.09	0.02	0.01	0.49	0.06	0.09	0.18	0.00	34.27	0.26	0.78	13.91	0.49	1.22	0.18	0.010	0.010	0.25	0.85	12.73	0.025	0.019	0.24	0.03	35.68	0.005	0.81	0.00	0.15	9.76	1.43	40.98	1.99	0.20	171.59	0.04	0.488	0.010	2.26	0.37	5.94	0.10
2025 Feb	Mean	112.76	134.77	0.02	0.01	0.47	0.06	0.08	0.16	0.00	34.45	0.25	0.78	13.33	0.48	1.19	0.18	0.010	0.010	0.25	0.86	12.79	0.024	0.018	0.24	0.03	34.31	0.005	0.94	0.00	0.14	9.81	1.38	35.77	2.00	0.20	156.62	0.04	0.490	0.009	2.13	0.37	5.78	0.10
2025 Mar	Mean	110.25	131.78	0.02	0.01	0.45	0.06	0.08	0.14	0.00	33.68	0.24	0.76	12.44	0.47	1.14	0.17	0.009	0.010	0.24	0.84	12.51	0.023	0.016	0.24	0.03	32.07	0.005	0.91	0.00	0.14	9.59	1.29	32.34	1.96	0.19	144.53	0.04	0.479	0.009	2.00	0.36	5.48	0.10
2025 Apr	Mean	365.43	437.20	0.03	0.03	0.76	0.17	0.16	0.19	0.02	111.71	0.31	2.54	14.12	1.32	2.60	0.57	0.026	0.032	0.80	2.80	41.54	0.028	0.020	0.79	0.08	37.25	0.016	1.24	0.00	0.22	31.99	1.49	38.28	6.52	0.63	219.33	0.12	1.586	0.018	3.84	0.97	12.83	0.32
2025 May	Mean	5531.89	6621.80	0.30	0.41	7.88	2.48	1.98	1.36	0.24	1691.74	2.37	38.54	74.69	18.76	33.78	8.72	0.385	0.489	12.20	42.51	629.57	0.185	0.125	11.95	1.29	210.86	0.240	9.32	0.00	2.08	486.11	8.17	235.06	98.85	9.58	2011.74	1.85	23.983	0.223	43.87	13.52	172.23	4.80
2025 Jun	Mean	2468.75	2953.96	0.13	0.18	3.39	1.10	0.87	0.55	0.11	754.76	0.93	17.16	28.39	8.32	14.56	3.89	0.164	0.217	5.44	18.91	280.72	0.070	0.051	5.33	0.57	80.55	0.107	3.88	0.00	0.88	216.33	3.21	94.78	44.06	4.28	857.08	0.83	10.711	0.094	19.10	5.99	71.20	2.14
2025 Jul	Mean	144.37	172.58	0.01	0.01	0.32	0.07	0.07	0.08	0.01	44.11	0.13	1.00	6.08	0.52	1.01	0.23	0.010	0.013	0.32	1.10	16.38	0.011	0.009	0.31	0.03	15.87	0.006	0.55	0.00	0.09	12.57	0.65	17.28	2.57	0.25	93.98	0.05	0.627	0.007	1.58	0.38	4.57	0.13
2025 Aug	Mean	109.93	131.39	0.01	0.01	0.31	0.05	0.06	0.09	0.00	33.58	0.14	0.76	7.32	0.42	0.89	0.17	0.008	0.010	0.24	0.84	12.47	0.013	0.010	0.24	0.03	18.94	0.005	0.62	0.00	0.09	9.56	0.77	20.36	1.95	0.19	98.37	0.04	0.478	0.006	1.49	0.31	4.08	0.10
2025 Sep	Mean	108.88	130.14	0.01	0.01	0.33	0.05	0.06	0.10	0.00	33.26	0.16	0.75	8.14	0.43	0.93	0.17	0.008	0.009	0.24	0.83	12.35	0.015	0.011	0.24	0.02	21.02	0.005	0.69	0.00	0.10	9.47	0.85	22.76	1.94	0.19	106.88	0.04	0.473	0.007	1.57	0.32	4.28	0.09
2025 Oct	Mean	113.56	135.73	0.01	0.01	0.35	0.06	0.07	0.11	0.00	34.69	0.17	0.78	8.52	0.44	0.97	0.18	0.008	0.010	0.25	0.86	12.88	0.016	0.012	0.25	0.03	21.99	0.005	0.73	0.00	0.10	9.88	0.89	24.14	2.02	0.20	112.64	0.04	0.494	0.007	1.64	0.33	4.47	0.10
2025 Nov	Mean	112.37	134.31	0.01	0.01	0.39	0.06	0.07	0.13	0.00	34.33	0.19	0.78	10.08	0.45	1.04	0.18	0.009	0.010	0.25	0.85	12.75	0.018	0.014	0.24	0.03	25.98	0.005	0.86	0.00	0.12	9.77	1.05	28.70	2.00	0.20	129.00	0.04	0.489	0.008	1.80	0.34	4.87	0.10
2025 Dec	Mean	114.28	136.60	0.02	0.01	0.48	0.06	0.09	0.17	0.01	34.91	0.26	0.79	13.57	0.49	1.21	0.18	0.010	0.010	0.25	0.87	12.96	0.025	0.018	0.25	0.03	34.90	0.005	1.14	0.00	0.15	9.94	1.40	38.64	2.03	0.20	165.82	0.04	0.497	0.009	2.19	0.37	5.86	0.10
2026 Jan	Mean	113.45	135.59	0.02	0.01	0.54	0.06																																					

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	
2027 Sep	Mean	106.04	126.75	0.02	0.01	0.43	0.05	0.08	0.13	0.00	32.39	0.23	0.73	11.40	0.45	1.09	0.17	0.009	0.009	0.23	0.81	12.03	0.022	0.016	0.23	0.02	29.34	0.005	1.40	0.00	0.13	9.22	1.22	28.77	1.89	0.18	127.59	0.04	0.461	0.008	1.96	0.34	5.25	0.09
2027 Oct	Mean	131.12	156.76	0.02	0.01	0.49	0.07	0.09	0.14	0.01	40.06	0.26	0.91	12.79	0.54	1.29	0.21	0.011	0.011	0.29	1.00	14.88	0.024	0.018	0.28	0.03	32.97	0.006	1.57	0.00	0.15	11.42	1.37	32.24	2.33	0.23	145.61	0.04	0.570	0.010	2.27	0.41	6.24	0.11
2027 Nov	Mean	109.81	131.25	0.02	0.01	0.47	0.06	0.08	0.14	0.00	33.55	0.25	0.76	12.90	0.47	1.18	0.17	0.010	0.010	0.24	0.83	12.46	0.025	0.018	0.24	0.03	33.17	0.005	1.57	0.00	0.14	9.55	1.38	32.33	1.95	0.19	141.61	0.04	0.477	0.009	2.15	0.36	5.75	0.10
2027 Dec	Mean	111.84	133.67	0.02	0.01	0.57	0.06	0.10	0.18	0.00	34.16	0.32	0.77	16.54	0.51	1.37	0.18	0.011	0.010	0.25	0.85	12.69	0.031	0.023	0.24	0.03	42.46	0.005	2.00	0.00	0.18	9.73	1.76	41.16	1.99	0.19	174.56	0.04	0.486	0.011	2.56	0.40	6.81	0.10
2028 Jan	Mean	111.36	133.10	0.02	0.01	0.63	0.06	0.11	0.21	0.00	34.02	0.37	0.77	18.84	0.53	1.48	0.17	0.011	0.010	0.24	0.85	12.63	0.036	0.026	0.24	0.03	48.33	0.005	2.45	0.00	0.20	9.68	2.00	48.73	1.98	0.19	201.35	0.04	0.484	0.012	2.82	0.42	7.45	0.10
2028 Feb	Mean	109.35	130.70	0.02	0.01	0.64	0.06	0.11	0.22	0.00	33.40	0.37	0.76	19.20	0.53	1.49	0.17	0.011	0.010	0.24	0.83	12.40	0.036	0.026	0.24	0.03	49.23	0.005	2.68	0.00	0.20	9.51	2.03	51.66	1.94	0.19	210.63	0.04	0.475	0.012	2.86	0.41	7.50	0.10
2028 Mar	Mean	105.89	126.56	0.02	0.01	0.61	0.06	0.10	0.22	0.00	32.35	0.36	0.73	18.41	0.51	1.43	0.17	0.011	0.009	0.23	0.80	12.01	0.035	0.025	0.23	0.02	47.19	0.005	2.63	0.00	0.19	9.21	1.95	50.25	1.88	0.18	204.44	0.04	0.460	0.012	2.75	0.40	7.21	0.09
2028 Apr	Mean	151.02	180.68	0.02	0.01	0.60	0.08	0.11	0.20	0.01	46.17	0.33	1.05	16.06	0.64	1.60	0.24	0.014	0.013	0.33	1.16	17.17	0.031	0.022	0.33	0.03	41.59	0.007	2.33	0.00	0.18	13.22	1.68	44.16	2.69	0.26	191.29	0.05	0.655	0.013	2.77	0.49	8.31	0.13
2028 May	Mean	3090.30	3709.50	0.19	0.31	5.50	1.44	1.21	1.31	0.13	947.00	3.09	21.87	85.77	10.90	25.27	4.94	0.304	0.282	6.88	24.26	353.84	0.235	0.105	6.68	0.74	252.17	0.134	10.59	0.00	1.55	276.81	7.25	196.00	55.75	5.31	1357.92	1.04	13.327	0.193	27.80	8.09	162.61	2.67
2028 Jun	Mean	2875.45	3451.60	0.17	0.28	4.87	1.33	1.09	1.12	0.12	881.16	2.71	20.35	70.84	10.06	23.05	4.60	0.280	0.262	6.40	22.57	329.24	0.202	0.086	6.22	0.69	211.68	0.124	8.63	0.00	1.36	257.56	5.82	158.85	51.87	4.94	1177.48	0.97	12.400	0.175	24.88	7.45	148.58	2.48
2028 Jul	Mean	108.69	129.93	0.01	0.01	0.35	0.05	0.07	0.11	0.00	33.21	0.17	0.75	8.55	0.43	0.97	0.17	0.008	0.009	0.24	0.83	12.33	0.016	0.012	0.23	0.02	22.06	0.005	1.32	0.00	0.10	9.47	0.91	24.81	1.93	0.19	111.51	0.04	0.472	0.007	1.68	0.32	4.60	0.09
2028 Aug	Mean	108.21	129.35	0.02	0.01	0.43	0.06	0.08	0.15	0.00	33.06	0.23	0.75	11.73	0.46	1.11	0.17	0.009	0.009	0.24	0.82	12.28	0.022	0.016	0.23	0.02	30.12	0.005	1.79	0.00	0.13	9.42	1.24	33.70	1.92	0.19	143.39	0.04	0.470	0.009	2.04	0.35	5.42	0.09
2028 Sep	Mean	105.24	125.80	0.02	0.01	0.45	0.05	0.08	0.16	0.00	32.15	0.24	0.73	12.49	0.45	1.13	0.16	0.009	0.009	0.23	0.80	11.94	0.024	0.017	0.23	0.02	32.05	0.005	1.89	0.00	0.14	9.16	1.32	35.69	1.87	0.18	150.08	0.04	0.457	0.009	2.10	0.35	5.54	0.09
2028 Oct	Mean	154.23	184.82	0.02	0.02	0.61	0.08	0.11	0.21	0.01	47.20	0.36	1.08	16.46	0.65	1.74	0.24	0.016	0.014	0.34	1.20	17.60	0.033	0.022	0.33	0.04	43.04	0.007	2.39	0.00	0.19	13.66	1.68	45.10	2.77	0.27	194.62	0.05	0.667	0.014	2.81	0.50	9.85	0.13
2028 Nov	Mean	108.98	130.26	0.02	0.01	0.49	0.06	0.09	0.17	0.00	33.29	0.27	0.75	13.84	0.48	1.22	0.17	0.010	0.009	0.24	0.83	12.36	0.026	0.019	0.24	0.02	35.52	0.005	2.07	0.00	0.15	9.48	1.46	39.17	1.94	0.19	163.74	0.04	0.474	0.010	2.27	0.37	5.98	0.09
2028 Dec	Mean	111.72	133.54	0.02	0.01	0.59	0.06	0.10	0.21	0.00	34.13	0.34	0.77	17.34	0.52	1.40	0.17	0.011	0.010	0.25	0.85	12.67	0.033	0.024	0.24	0.03	44.43	0.005	2.57	0.00	0.18	9.72	1.83	48.67	1.99	0.19	198.78	0.04	0.486	0.011	2.68	0.40	7.00	0.10
2029 Jan	Mean	111.08	132.76	0.02	0.01	0.66	0.06	0.11	0.25	0.00	33.93	0.39	0.77	20.06	0.54	1.53	0.17	0.012	0.010	0.24	0.84	12.60	0.038	0.027	0.24	0.03	51.43	0.005	3.02	0.00	0.21	9.66	2.11	56.78	1.97	0.19	228.56	0.04	0.483	0.013	2.97	0.42	7.74	0.10
2029 Feb	Mean	108.46	129.63	0.02	0.01	0.68	0.06	0.11	0.26	0.00	33.13	0.40	0.75	20.91	0.54	1.56	0.17	0.012	0.009	0.24	0.82	12.30	0.039	0.028	0.23	0.02	53.65	0.005	3.21	0.00	0.21	9.43	2.19	59.75	1.93	0.19	239.35	0.04	0.472	0.013	3.03	0.42	7.92	0.09
2029 Mar	Mean	104.87	125.35	0.02	0.01	0.66	0.06	0.11	0.25	0.00	32.04	0.39	0.72	20.41	0.52	1.51	0.16	0.011	0.009	0.23	0.80	11.90	0.038	0.028	0.23	0.02	52.37	0.005	3.15	0.00	0.21	9.12	2.13	58.61	1.86	0.18	234.58	0.03	0.456	0.013	2.94	0.41	7.70	0.09
2029 Apr	Mean	307.45	369.31	0.04	0.04	1.00	0.16	0.18	0.34	0.01	94.26	0.62	2.18	25.36	1.24	3.35	0.49	0.036	0.028	0.69	2.43	35.26	0.055	0.033	0.67	0.07	68.08	0.013	3.67	0.00	0.31	27.67	2.46	67.90	5.56	0.53	312.01	0.10	1.324	0.027	4.63	0.94	21.20	0.26
2029 May	Mean	3799.96	4564.53	0.24	0.39	6.91	1.78	1.51	1.74	0.16	1165.06	3.90	26.99	111.55	13.49	31.68	6.10	0.385	0.349	8.48	29.98	435.75	0.303	0.138	8.22	0.91	325.70	0.164	14.89	0.00	1.98	341.98	9.52	270.79	68.71	6.52	1783.40	1.28	16.365	0.243	34.94	10.00	207.61	3.27
2029 Jun	Mean	2797.47	3358.34	0.17	0.27	4.81	1.30	1.08	1.15	0.12	857.32	2.56	19.81	71.21	9.82	22.18	4.48	0.268	0.256	6.23	21.97	320.38	0.196	0.090	6.05	0.67	209.21	0.121	9.73	0.00	1.35	250.75	6.12	176.07	50.48	4.81	1225.08	0.94	12.061	0.167	24.72	7.25	141.39	2.41
2029 Jul	Mean	108.71	129.97	0.01	0.01	0.38	0.05	0.07	0.13	0.00	33.22	0.19	0.75	9.66	0.44	1.02	0.17	0.009	0.009	0.24	0.83	12.34	0.018	0.014	0.23	0.02	24.91	0.005	1.59	0.00	0.11	9.47	1.02	29.28	1.93	0.19	127.79	0.04	0.472	0.008	1.79	0.33	4.88	0.09
2029 Aug	Mean	105.53	126.14	0.02	0.01	0.46	0.05	0.08	0.17	0.00	32.24	0.25	0.73	12.75	0.46	1.15	0.17	0.009	0.009	0.23	0.80	11.97	0.024	0.018	0.23	0.02	32.80	0.005	2.08	0.00	0.14	9.18	1.34	38.23	1.88	0.18	159.54	0.04	0.459	0.009	2.11	0.35	5.62	0.09
2029 Sep	Mean	104.46	124.86	0.02	0.01	0.47	0.05	0.08	0.17	0.00	31.91	0.26	0.72	13.49	0.46	1.18	0.16	0.009	0.009	0.23	0.79	11.85	0.025	0.019	0.23	0.02	34.68	0.005	2.18	0.00	0.15	9.09	1.41	40.13	1.86	0.18	166.42	0.03	0.454	0.009	2.19	0.35	5.79	0.09
2029 Oct	Mean	104.74	125.19	0.02	0.01	0.47	0.05	0.08	0.17	0.00	32.00	0.26	0.72	13.27	0.46	1.17	0.16	0.009	0.009	0.23	0.80	11.88	0.025	0.018	0.23	0.02	34.11	0.005	2.12	0.00	0.14	9.11	1.39	39.19	1.86	0.18	163.37	0.03	0.455	0.009	2.16	0.35	5.72	0.09
2029 Nov	Mean	108.45																																										

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2031 Jul	Mean	134.37	160.70	0.02	0.01	0.43	0.07	0.08	0.17	0.01	41.07	0.22	0.93	10.49	0.53	1.22	0.21	0.011	0.012	0.30	1.03	15.26	0.020	0.015	0.29	0.03	27.15	0.006	1.98	0.00	0.13	11.74	1.11	38.51	2.39	0.23	154.44	0.04	0.583	0.009	2.06	0.40	6.15	0.12
2031 Aug	Mean	105.25	125.81	0.02	0.01	0.46	0.05	0.08	0.20	0.00	32.16	0.25	0.73	12.95	0.46	1.16	0.16	0.009	0.009	0.23	0.80	11.94	0.024	0.018	0.23	0.02	33.22	0.005	2.43	0.00	0.14	9.16	1.37	47.57	1.87	0.18	177.92	0.04	0.457	0.009	2.16	0.35	5.72	0.09
2031 Sep	Mean	103.75	124.02	0.02	0.01	0.50	0.06	0.09	0.22	0.00	31.70	0.28	0.72	14.25	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.77	0.027	0.020	0.22	0.02	36.53	0.005	2.67	0.00	0.15	9.03	1.51	52.22	1.85	0.18	192.89	0.03	0.451	0.010	2.29	0.36	6.03	0.09
2031 Oct	Mean	118.94	142.22	0.02	0.01	0.55	0.06	0.10	0.24	0.01	36.35	0.31	0.82	15.56	0.53	1.38	0.19	0.011	0.010	0.26	0.91	13.51	0.030	0.022	0.26	0.03	39.99	0.005	2.90	0.00	0.17	10.38	1.64	56.80	2.12	0.21	211.15	0.04	0.517	0.011	2.54	0.41	7.04	0.10
2031 Nov	Mean	106.90	127.78	0.02	0.01	0.57	0.06	0.10	0.26	0.00	32.66	0.33	0.74	16.81	0.50	1.35	0.17	0.011	0.009	0.23	0.81	12.13	0.032	0.023	0.23	0.02	43.04	0.005	3.14	0.00	0.18	9.30	1.77	61.59	1.90	0.19	224.14	0.04	0.465	0.011	2.61	0.39	6.78	0.09
2031 Dec	Mean	108.86	130.11	0.03	0.01	0.69	0.06	0.11	0.33	0.00	33.25	0.41	0.75	21.37	0.55	1.59	0.17	0.012	0.009	0.24	0.83	12.35	0.040	0.029	0.24	0.02	54.66	0.005	3.99	0.00	0.22	9.47	2.25	78.22	1.94	0.19	278.88	0.04	0.473	0.013	3.14	0.43	8.09	0.09
2032 Jan	Mean	108.05	129.14	0.03	0.01	0.77	0.06	0.12	0.39	0.00	33.01	0.46	0.75	24.08	0.57	1.71	0.17	0.013	0.009	0.24	0.82	12.26	0.045	0.033	0.23	0.02	61.58	0.005	4.51	0.00	0.24	9.40	2.52	90.69	1.92	0.19	309.66	0.04	0.470	0.014	3.43	0.45	8.82	0.09
2032 Feb	Mean	105.78	126.43	0.03	0.01	0.77	0.06	0.12	0.40	0.00	32.31	0.46	0.73	24.36	0.56	1.71	0.17	0.013	0.009	0.23	0.80	12.00	0.045	0.033	0.23	0.02	62.33	0.005	4.57	0.00	0.24	9.20	2.54	94.34	1.88	0.18	311.25	0.04	0.460	0.014	3.44	0.45	8.84	0.09
2032 Mar	Mean	102.57	122.59	0.03	0.01	0.73	0.06	0.12	0.39	0.00	31.33	0.44	0.71	23.24	0.54	1.64	0.16	0.012	0.009	0.22	0.78	11.64	0.043	0.032	0.22	0.02	59.47	0.004	4.36	0.00	0.23	8.92	2.43	90.79	1.82	0.18	296.47	0.03	0.446	0.014	3.29	0.43	8.46	0.09
2032 Apr	Mean	118.52	141.80	0.02	0.01	0.62	0.06	0.10	0.31	0.01	36.23	0.36	0.82	18.35	0.55	1.53	0.19	0.013	0.010	0.26	0.91	13.47	0.035	0.025	0.26	0.03	47.25	0.005	3.43	0.00	0.19	10.38	1.91	71.58	2.11	0.21	240.88	0.04	0.514	0.013	2.83	0.43	8.24	0.10
2032 May	Mean	3543.16	4253.19	0.24	0.38	6.63	1.66	1.45	2.11	0.15	1085.79	3.66	25.08	111.51	12.66	29.86	5.67	0.381	0.323	7.89	27.81	405.71	0.307	0.145	7.66	0.85	319.03	0.153	18.34	0.00	1.95	317.42	10.03	371.34	63.92	6.09	1894.39	1.20	15.279	0.236	33.99	9.34	208.33	3.06
2032 Jun	Mean	2426.20	2911.17	0.15	0.25	4.23	1.13	0.95	1.25	0.10	743.27	2.20	17.13	64.29	8.55	19.41	3.87	0.247	0.220	5.39	18.99	277.56	0.182	0.085	5.25	0.58	185.86	0.105	10.67	0.00	1.22	216.72	5.77	214.33	43.71	4.17	1174.61	0.82	10.471	0.151	22.05	6.28	132.19	2.09
2032 Jul	Mean	154.57	184.97	0.02	0.01	0.47	0.08	0.09	0.20	0.01	47.26	0.24	1.08	11.49	0.61	1.41	0.24	0.013	0.014	0.34	1.19	17.58	0.023	0.016	0.33	0.04	29.94	0.007	2.20	0.00	0.14	13.56	1.19	45.54	2.76	0.27	169.42	0.05	0.670	0.011	2.29	0.46	7.49	0.13
2032 Aug	Mean	104.93	125.43	0.02	0.01	0.47	0.05	0.08	0.23	0.00	32.06	0.26	0.73	13.40	0.46	1.18	0.16	0.010	0.009	0.23	0.80	11.91	0.025	0.019	0.23	0.02	34.38	0.005	2.57	0.00	0.15	9.13	1.41	53.56	1.87	0.18	182.68	0.04	0.456	0.009	2.20	0.35	5.81	0.09
2032 Sep	Mean	117.62	140.62	0.02	0.01	0.55	0.06	0.10	0.27	0.01	35.94	0.31	0.81	15.75	0.52	1.36	0.18	0.011	0.010	0.26	0.90	13.35	0.030	0.022	0.25	0.03	40.45	0.005	3.00	0.00	0.17	10.25	1.65	62.62	2.09	0.20	212.69	0.04	0.511	0.011	2.55	0.40	6.86	0.10
2032 Oct	Mean	112.15	134.09	0.02	0.01	0.52	0.06	0.09	0.26	0.00	34.27	0.29	0.78	15.05	0.50	1.31	0.18	0.011	0.010	0.25	0.85	12.73	0.028	0.021	0.24	0.03	38.68	0.005	2.86	0.00	0.16	9.78	1.57	59.60	2.00	0.19	202.61	0.04	0.487	0.010	2.43	0.39	6.64	0.10
2032 Nov	Mean	107.15	128.08	0.02	0.01	0.55	0.06	0.09	0.28	0.00	32.73	0.31	0.74	16.33	0.49	1.33	0.17	0.010	0.009	0.24	0.81	12.16	0.031	0.023	0.23	0.02	41.87	0.005	3.10	0.00	0.17	9.32	1.71	64.64	1.91	0.19	216.74	0.04	0.466	0.011	2.54	0.38	6.62	0.09
2032 Dec	Mean	109.69	131.11	0.02	0.01	0.67	0.06	0.11	0.34	0.00	33.51	0.39	0.76	20.38	0.54	1.54	0.17	0.012	0.010	0.24	0.83	12.44	0.038	0.028	0.24	0.03	52.20	0.005	3.84	0.00	0.21	9.54	2.13	80.30	1.95	0.19	264.38	0.04	0.477	0.013	3.01	0.42	7.79	0.10
2033 Jan	Mean	109.26	130.58	0.03	0.01	0.73	0.06	0.12	0.39	0.00	33.38	0.43	0.75	22.99	0.56	1.65	0.17	0.012	0.010	0.24	0.83	12.39	0.042	0.031	0.24	0.03	58.69	0.005	4.25	0.00	0.23	9.50	2.37	91.42	1.94	0.19	290.76	0.04	0.475	0.014	3.29	0.44	8.44	0.10
2033 Feb	Mean	107.29	128.23	0.03	0.01	0.73	0.06	0.12	0.40	0.00	32.77	0.43	0.74	23.29	0.55	1.64	0.17	0.012	0.009	0.24	0.81	12.17	0.042	0.031	0.23	0.02	59.30	0.005	4.23	0.00	0.23	9.33	2.38	93.44	1.91	0.19	289.69	0.04	0.466	0.014	3.29	0.44	8.41	0.09
2033 Mar	Mean	104.29	124.65	0.03	0.01	0.69	0.06	0.11	0.38	0.00	31.86	0.41	0.72	22.10	0.53	1.56	0.16	0.012	0.009	0.23	0.79	11.83	0.040	0.030	0.23	0.02	56.20	0.005	3.97	0.00	0.22	9.07	2.24	88.59	1.85	0.18	273.07	0.03	0.453	0.013	3.12	0.42	8.00	0.09
2033 Apr	Mean	101.16	120.95	0.02	0.01	0.54	0.06	0.09	0.28	0.00	30.91	0.31	0.70	16.51	0.47	1.29	0.16	0.010	0.009	0.22	0.77	11.48	0.030	0.022	0.22	0.02	42.05	0.004	2.95	0.00	0.17	8.81	1.67	66.10	1.80	0.18	208.16	0.03	0.440	0.011	2.48	0.37	6.59	0.09
2033 May	Mean	3719.69	4466.62	0.24	0.41	6.69	1.74	1.47	2.08	0.16	1140.17	3.87	26.38	109.99	13.20	31.67	5.96	0.411	0.341	8.29	29.27	426.24	0.313	0.135	8.05	0.89	320.50	0.161	16.05	0.00	1.95	334.00	9.15	343.80	67.18	6.38	1801.12	1.26	16.030	0.252	34.20	9.78	224.22	3.21
2033 Jun	Mean	2336.79	2804.47	0.14	0.24	3.95	1.08	0.89	1.14	0.10	715.99	2.14	16.52	58.85	8.19	18.82	3.73	0.242	0.213	5.20	18.31	267.45	0.170	0.074	5.05	0.56	172.87	0.101	8.72	0.00	1.13	209.04	4.92	184.82	42.13	4.02	1040.79	0.79	10.081	0.146	20.53	6.04	129.14	2.02
2033 Jul	Mean	161.55	193.43	0.02	0.01	0.46	0.08	0.09	0.20	0.01	49.41	0.24	1.13	11.19	0.63	1.46	0.26	0.015	0.014	0.36	1.24	18.40	0.022	0.015	0.35	0.04	29.20	0.007	1.99	0.00	0.14	14.22	1.11	44.05	2.89	0.28	158.99	0.05	0.700	0.011	2.26	0.47	8.08	0.14
2033 Aug	Mean	106.26	127.02	0.02	0.01	0.43	0.05	0.08	0.21	0.00	32.46	0.23	0.73	12.19	0.45	1.11	0.17	0.009	0.009	0.23	0.81	12.06	0.022	0.017	0.23	0.02	31.10	0.005	2.21	0.00	0.13	9.25	1.24	49.38	1.89	0.18	161.62	0.04	0.462	0.009	2.04	0.34	5.40	0.09
2033 Sep</																																												

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2035 May	Mean	4994.25	5985.73	0.36	0.51	10.08	2.34	2.13	2.69	0.22	1528.72	5.70	35.04	186.43	17.95	42.20	7.93	0.506	0.448	11.06	38.75	569.94	0.463	0.215	10.80	1.18	527.88	0.216	20.16	0.00	2.91	442.67	16.65	436.67	89.63	8.62	2391.18	1.68	21.601	0.332	47.80	13.39	274.51	4.32
2035 Jun	Mean	3082.21	3693.07	0.21	0.30	5.76	1.43	1.26	1.44	0.13	943.26	3.07	21.59	96.96	10.91	24.60	4.88	0.295	0.276	6.82	23.86	351.52	0.245	0.114	6.66	0.72	276.62	0.134	10.67	0.00	1.64	272.67	8.68	228.51	55.26	5.32	1352.48	1.04	13.338	0.189	27.98	8.10	155.64	2.67
2035 Jul	Mean	135.34	161.89	0.02	0.01	0.55	0.07	0.10	0.19	0.01	41.37	0.31	0.94	15.35	0.58	1.47	0.21	0.013	0.012	0.30	1.03	15.38	0.029	0.019	0.29	0.03	39.88	0.006	1.82	0.00	0.17	11.84	1.56	40.91	2.41	0.23	150.79	0.05	0.588	0.012	2.31	0.44	7.73	0.12
2035 Aug	Mean	101.21	120.98	0.02	0.01	0.60	0.06	0.10	0.23	0.00	30.92	0.35	0.70	18.69	0.49	1.40	0.16	0.011	0.009	0.22	0.77	11.48	0.034	0.022	0.22	0.02	48.11	0.004	2.21	0.00	0.19	8.81	1.92	50.14	1.80	0.18	170.72	0.03	0.440	0.012	2.42	0.39	7.12	0.09
2035 Sep	Mean	99.06	118.41	0.02	0.01	0.66	0.06	0.11	0.25	0.00	30.26	0.39	0.68	20.84	0.51	1.49	0.16	0.011	0.009	0.22	0.75	11.24	0.038	0.025	0.21	0.02	53.58	0.004	2.48	0.00	0.21	8.62	2.13	56.23	1.76	0.17	187.86	0.03	0.431	0.012	2.61	0.40	7.64	0.09
2035 Oct	Mean	115.90	138.57	0.03	0.01	0.71	0.07	0.12	0.28	0.01	35.41	0.42	0.80	22.29	0.57	1.66	0.18	0.013	0.010	0.25	0.88	13.16	0.041	0.027	0.25	0.03	57.40	0.005	2.68	0.00	0.22	10.10	2.28	60.70	2.06	0.20	204.06	0.04	0.504	0.014	2.86	0.45	8.59	0.10
2035 Nov	Mean	101.56	121.39	0.03	0.01	0.75	0.06	0.12	0.30	0.00	31.03	0.45	0.70	24.23	0.54	1.66	0.16	0.012	0.009	0.22	0.77	11.52	0.044	0.029	0.22	0.02	62.26	0.004	2.96	0.00	0.24	8.83	2.48	66.93	1.81	0.18	218.31	0.03	0.442	0.014	2.96	0.43	8.60	0.09
2035 Dec	Mean	102.13	122.07	0.03	0.01	0.92	0.07	0.14	0.38	0.00	31.20	0.57	0.71	30.69	0.60	1.97	0.16	0.014	0.009	0.22	0.78	11.59	0.056	0.037	0.22	0.02	78.80	0.004	3.77	0.00	0.29	8.88	3.13	85.39	1.82	0.18	271.75	0.03	0.444	0.017	3.58	0.49	10.38	0.09
2036 Jan	Mean	100.32	119.91	0.04	0.01	1.02	0.07	0.16	0.43	0.00	30.65	0.64	0.69	34.67	0.63	2.15	0.16	0.015	0.009	0.22	0.76	11.38	0.063	0.041	0.22	0.02	89.01	0.004	4.22	0.00	0.33	8.72	3.53	95.84	1.78	0.17	302.45	0.03	0.436	0.019	3.95	0.51	11.44	0.09
2036 Feb	Mean	97.94	117.06	0.04	0.01	1.03	0.07	0.16	0.43	0.00	29.92	0.65	0.68	35.10	0.63	2.16	0.15	0.015	0.009	0.21	0.74	11.11	0.064	0.042	0.21	0.02	90.12	0.004	4.20	0.00	0.33	8.52	3.58	95.50	1.74	0.17	302.52	0.03	0.426	0.019	3.96	0.51	11.52	0.09
2036 Mar	Mean	94.92	113.45	0.04	0.01	0.99	0.06	0.15	0.41	0.00	29.00	0.62	0.66	33.73	0.60	2.08	0.15	0.015	0.008	0.21	0.72	10.77	0.062	0.040	0.21	0.02	86.59	0.004	4.00	0.00	0.32	8.25	3.44	91.03	1.69	0.17	289.47	0.03	0.413	0.018	3.80	0.49	11.08	0.08
2036 Apr	Mean	345.95	413.49	0.06	0.04	1.64	0.18	0.28	0.60	0.02	105.68	0.99	2.39	48.38	1.55	4.33	0.54	0.039	0.030	0.76	2.63	39.24	0.093	0.057	0.75	0.08	126.28	0.015	5.61	0.00	0.51	30.08	4.84	126.73	6.15	0.60	450.36	0.12	1.504	0.036	6.69	1.20	24.97	0.30
2036 May	Mean	4688.29	5603.52	0.34	0.47	9.53	2.16	2.00	2.62	0.21	1432.17	5.40	32.39	178.67	16.72	38.78	7.34	0.466	0.408	10.28	35.61	531.82	0.441	0.206	10.13	1.07	504.55	0.204	19.72	0.00	2.72	407.68	15.99	428.12	83.35	8.15	2263.50	1.56	20.384	0.312	44.84	12.50	254.66	4.08
2036 Jun	Mean	2684.41	3208.46	0.18	0.25	5.03	1.22	1.09	1.30	0.12	820.03	2.64	18.55	85.39	9.44	20.79	4.20	0.248	0.233	5.89	20.39	304.51	0.212	0.102	5.80	0.61	242.26	0.117	9.85	0.00	1.41	233.43	7.72	211.26	47.72	4.67	1192.74	0.90	11.671	0.163	24.36	7.01	131.10	2.33
2036 Jul	Mean	104.27	124.62	0.02	0.01	0.50	0.06	0.09	0.18	0.00	31.85	0.28	0.72	14.58	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.83	0.027	0.018	0.23	0.02	37.59	0.005	1.79	0.00	0.15	9.07	1.50	40.27	1.85	0.18	140.91	0.03	0.453	0.010	2.06	0.36	6.11	0.09
2036 Aug	Mean	100.81	120.49	0.02	0.01	0.61	0.06	0.10	0.24	0.00	30.80	0.36	0.70	18.96	0.49	1.41	0.16	0.011	0.009	0.22	0.77	11.44	0.035	0.023	0.22	0.02	48.77	0.004	2.32	0.00	0.19	8.77	1.94	52.30	1.79	0.18	175.41	0.03	0.438	0.012	2.45	0.39	7.19	0.09
2036 Sep	Mean	99.02	118.35	0.02	0.01	0.65	0.06	0.11	0.26	0.00	30.25	0.39	0.68	20.69	0.50	1.48	0.15	0.011	0.009	0.22	0.75	11.23	0.038	0.025	0.21	0.02	53.19	0.004	2.53	0.00	0.21	8.61	2.12	57.09	1.76	0.17	189.03	0.03	0.431	0.012	2.61	0.40	7.60	0.09
2036 Oct	Mean	159.21	190.29	0.03	0.02	0.87	0.09	0.14	0.33	0.01	48.63	0.52	1.10	26.58	0.75	2.16	0.25	0.018	0.014	0.35	1.21	18.06	0.050	0.032	0.34	0.04	68.92	0.007	3.18	0.00	0.27	13.84	2.68	71.91	2.83	0.28	245.85	0.05	0.692	0.018	3.52	0.59	11.98	0.14
2036 Nov	Mean	102.02	121.94	0.03	0.01	0.73	0.06	0.12	0.29	0.00	31.16	0.44	0.70	23.72	0.54	1.64	0.16	0.012	0.009	0.22	0.77	11.57	0.043	0.028	0.22	0.02	60.97	0.004	2.84	0.00	0.23	8.87	2.42	64.46	1.81	0.18	212.29	0.03	0.444	0.014	2.91	0.43	8.48	0.09
2036 Dec	Mean	103.03	123.15	0.03	0.01	0.89	0.06	0.14	0.36	0.00	31.47	0.55	0.71	29.59	0.59	1.92	0.16	0.014	0.009	0.23	0.78	11.69	0.054	0.035	0.22	0.02	76.02	0.004	3.47	0.00	0.28	8.96	3.02	79.05	1.83	0.18	256.85	0.03	0.448	0.017	3.46	0.48	10.10	0.09
2037 Jan	Mean	101.50	121.32	0.04	0.01	0.99	0.07	0.15	0.39	0.00	31.01	0.62	0.70	33.28	0.62	2.09	0.16	0.015	0.009	0.22	0.77	11.51	0.061	0.039	0.22	0.02	85.48	0.004	3.82	0.00	0.32	8.83	3.39	87.24	1.80	0.18	282.54	0.03	0.441	0.018	3.78	0.50	11.09	0.09
2037 Feb	Mean	99.12	118.47	0.04	0.01	1.00	0.07	0.15	0.39	0.00	30.28	0.62	0.68	33.75	0.62	2.10	0.16	0.015	0.009	0.22	0.75	11.24	0.062	0.040	0.21	0.02	86.71	0.004	3.80	0.00	0.32	8.62	3.44	86.95	1.76	0.17	282.82	0.03	0.431	0.018	3.79	0.50	11.17	0.09
2037 Mar	Mean	96.13	114.89	0.03	0.01	0.95	0.06	0.15	0.37	0.00	29.36	0.60	0.66	32.31	0.60	2.02	0.15	0.014	0.008	0.21	0.73	10.90	0.059	0.038	0.21	0.02	83.02	0.004	3.57	0.00	0.31	8.36	3.29	81.97	1.71	0.17	268.64	0.03	0.418	0.018	3.63	0.48	10.72	0.08
2037 Apr	Mean	289.57	346.10	0.05	0.03	1.34	0.15	0.23	0.47	0.01	88.46	0.82	2.00	39.54	1.29	3.60	0.45	0.033	0.025	0.64	2.20	32.85	0.077	0.046	0.63	0.07	103.41	0.013	4.30	0.00	0.42	25.18	3.95	97.86	5.15	0.50	358.52	0.10	1.259	0.030	5.46	1.00	20.93	0.25
2037 May	Mean	4109.58	4911.84	0.30	0.40	8.33	1.89	1.76	2.16	0.18	1255.39	4.53	28.39	154.67	14.65	33.19	6.43	0.392	0.357	9.01	31.22	466.17	0.372	0.180	8.88	0.94	433.71	0.179	16.24	0.00	2.37	357.36	14.16	354.28	73.06	7.15	1949.64	1.37	17.868	0.263	39.19	10.93	210.96	3.57
2037 Jun	Mean	3385.17	4046.01	0.22	0.32	6.12	1.54	1.35	1.47	0.15	1034.10	3.22	23.39	99.06	11.82	25.97	5.30	0.314	0.294	7.43	25.71	384.00	0.255	0.116	7.31	0.77	284.50	0.147	10.39	0.00	1.71	294.36	8.80	222.50	60.18	5.89	1394.22	1.13	14.718	0				

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2039 Mar	Mean	97.04	115.98	0.03	0.01	0.92	0.06	0.14	0.34	0.00	29.64	0.58	0.67	31.11	0.59	1.97	0.15	0.014	0.008	0.21	0.74	11.01	0.057	0.036	0.21	0.02	79.99	0.004	3.23	0.00	0.30	8.44	3.18	74.69	1.73	0.17	251.71	0.03	0.422	0.017	3.48	0.48	10.41	0.08
2039 Apr	Mean	223.71	267.38	0.04	0.02	1.00	0.12	0.17	0.33	0.01	68.34	0.58	1.55	28.96	0.98	2.62	0.35	0.023	0.019	0.49	1.70	25.38	0.055	0.034	0.48	0.05	75.37	0.010	3.02	0.00	0.31	19.45	2.93	69.08	3.98	0.39	261.50	0.07	0.973	0.021	4.07	0.76	14.25	0.19
2039 May	Mean	4481.50	5356.37	0.33	0.43	9.13	2.06	1.92	2.32	0.20	1369.00	4.99	30.96	170.26	15.99	36.35	7.01	0.429	0.390	9.83	34.04	508.36	0.410	0.196	9.68	1.03	477.59	0.195	17.11	0.00	2.60	389.70	15.57	374.72	79.67	7.79	2107.68	1.49	19.485	0.289	42.72	11.93	231.76	3.90
2039 Jun	Mean	2907.14	3474.66	0.19	0.27	5.23	1.32	1.15	1.22	0.13	888.07	2.71	20.08	83.91	10.14	22.12	4.55	0.266	0.253	6.38	22.08	329.77	0.215	0.098	6.28	0.67	240.70	0.126	8.57	0.00	1.45	252.80	7.50	183.71	51.68	5.06	1182.08	0.97	12.640	0.172	25.37	7.52	139.87	2.53
2039 Jul	Mean	195.01	233.08	0.03	0.02	0.69	0.10	0.13	0.21	0.01	59.57	0.38	1.35	18.40	0.79	1.96	0.31	0.018	0.017	0.43	1.48	22.12	0.036	0.022	0.42	0.04	48.21	0.008	1.92	0.00	0.21	16.96	1.86	43.63	3.47	0.34	176.88	0.07	0.848	0.016	2.92	0.60	10.74	0.17
2039 Aug	Mean	102.43	122.42	0.02	0.01	0.56	0.06	0.09	0.19	0.00	31.29	0.32	0.71	16.94	0.48	1.32	0.16	0.010	0.009	0.22	0.78	11.62	0.031	0.020	0.22	0.02	43.67	0.004	1.78	0.00	0.17	8.91	1.74	40.82	1.82	0.18	148.39	0.03	0.445	0.011	2.22	0.38	6.67	0.09
2039 Sep	Mean	100.75	120.41	0.02	0.01	0.59	0.06	0.10	0.21	0.00	30.78	0.35	0.70	18.43	0.49	1.38	0.16	0.011	0.009	0.22	0.77	11.43	0.034	0.022	0.22	0.02	47.49	0.004	1.94	0.00	0.19	8.76	1.89	44.48	1.79	0.18	159.22	0.03	0.438	0.011	2.35	0.38	7.03	0.09
2039 Oct	Mean	100.61	120.24	0.02	0.01	0.60	0.06	0.10	0.21	0.00	30.73	0.35	0.70	18.64	0.49	1.39	0.16	0.011	0.009	0.22	0.76	11.41	0.034	0.022	0.22	0.02	48.02	0.004	1.97	0.00	0.19	8.75	1.91	45.21	1.79	0.17	161.16	0.03	0.437	0.012	2.37	0.38	7.07	0.09
2039 Nov	Mean	103.25	123.41	0.02	0.01	0.68	0.06	0.11	0.24	0.00	31.54	0.40	0.71	21.53	0.53	1.54	0.16	0.012	0.009	0.23	0.78	11.71	0.039	0.025	0.22	0.02	55.41	0.004	2.27	0.00	0.21	8.98	2.21	52.29	1.84	0.18	183.38	0.03	0.449	0.013	2.65	0.41	7.90	0.09
2039 Dec	Mean	104.84	125.31	0.03	0.01	0.83	0.06	0.13	0.30	0.00	32.03	0.51	0.72	27.37	0.58	1.83	0.16	0.013	0.009	0.23	0.80	11.89	0.050	0.032	0.23	0.02	70.41	0.005	2.88	0.00	0.27	9.12	2.80	66.40	1.86	0.18	227.10	0.03	0.456	0.016	3.20	0.47	9.53	0.09
2040 Jan	Mean	103.14	123.28	0.03	0.01	0.94	0.07	0.15	0.35	0.00	31.51	0.58	0.71	31.41	0.61	2.01	0.16	0.014	0.009	0.23	0.78	11.70	0.057	0.037	0.22	0.02	80.77	0.004	3.29	0.00	0.30	8.97	3.21	76.01	1.83	0.18	256.42	0.03	0.448	0.017	3.56	0.49	10.61	0.09
2040 Feb	Mean	100.39	119.99	0.03	0.01	0.96	0.07	0.15	0.36	0.00	30.67	0.60	0.69	32.32	0.61	2.04	0.16	0.014	0.009	0.22	0.76	11.39	0.059	0.038	0.22	0.02	83.09	0.004	3.37	0.00	0.31	8.73	3.30	77.94	1.78	0.17	262.05	0.03	0.436	0.018	3.62	0.49	10.81	0.09
2040 Mar	Mean	97.01	115.95	0.03	0.01	0.92	0.06	0.14	0.34	0.00	29.63	0.58	0.67	31.07	0.59	1.97	0.15	0.014	0.008	0.21	0.74	11.00	0.057	0.036	0.21	0.02	79.88	0.004	3.23	0.00	0.30	8.44	3.17	74.60	1.72	0.17	251.41	0.03	0.422	0.017	3.48	0.48	10.40	0.08
2040 Apr	Mean	289.74	346.30	0.05	0.03	1.27	0.15	0.22	0.42	0.01	88.51	0.78	2.00	36.77	1.26	3.54	0.45	0.034	0.025	0.64	2.20	32.87	0.073	0.042	0.63	0.07	96.70	0.013	3.71	0.00	0.39	25.19	3.64	85.00	5.15	0.50	325.39	0.10	1.260	0.030	5.13	0.98	21.29	0.25
2040 May	Mean	4564.16	5455.16	0.33	0.45	9.06	2.09	1.92	2.28	0.20	1394.25	5.02	31.53	165.08	16.21	37.00	7.14	0.444	0.397	10.01	34.67	517.74	0.408	0.189	9.86	1.04	467.11	0.198	16.34	0.00	2.58	396.88	14.84	356.71	81.14	7.94	2070.14	1.52	19.844	0.295	42.59	12.09	239.99	3.97
2040 Jun	Mean	2588.00	3093.22	0.17	0.24	4.64	1.17	1.02	1.08	0.11	790.58	2.42	17.88	74.23	9.02	19.74	4.05	0.239	0.225	5.68	19.66	293.57	0.191	0.086	5.59	0.59	213.46	0.113	7.48	0.00	1.29	225.04	6.60	160.32	46.01	4.50	1043.92	0.86	11.252	0.154	22.51	6.69	125.50	2.25
2040 Jul	Mean	146.75	175.40	0.02	0.01	0.53	0.07	0.10	0.16	0.01	44.83	0.29	1.01	14.28	0.60	1.46	0.23	0.013	0.013	0.32	1.11	16.65	0.027	0.017	0.32	0.03	37.20	0.006	1.49	0.00	0.16	12.76	1.46	33.97	2.61	0.26	137.03	0.05	0.638	0.011	2.25	0.46	7.60	0.13
2040 Aug	Mean	102.52	122.54	0.02	0.01	0.55	0.06	0.09	0.18	0.00	31.32	0.31	0.71	16.60	0.48	1.31	0.16	0.010	0.009	0.22	0.78	11.63	0.031	0.020	0.22	0.02	42.81	0.004	1.71	0.00	0.17	8.91	1.71	39.38	1.82	0.18	144.71	0.03	0.446	0.011	2.18	0.37	6.59	0.09
2040 Sep	Mean	108.44	129.61	0.02	0.01	0.62	0.06	0.10	0.21	0.00	33.13	0.36	0.75	19.10	0.52	1.46	0.17	0.011	0.009	0.24	0.82	12.30	0.035	0.023	0.23	0.02	49.23	0.005	1.96	0.00	0.19	9.43	1.96	45.11	1.93	0.19	163.98	0.04	0.471	0.012	2.45	0.41	7.41	0.09
2040 Oct	Mean	104.45	124.84	0.02	0.01	0.60	0.06	0.10	0.20	0.00	31.91	0.35	0.72	18.52	0.50	1.41	0.16	0.011	0.009	0.23	0.79	11.85	0.034	0.022	0.23	0.02	47.72	0.005	1.90	0.00	0.19	9.08	1.90	43.80	1.86	0.18	159.01	0.03	0.454	0.012	2.37	0.39	7.12	0.09
2040 Nov	Mean	103.89	124.17	0.02	0.01	0.66	0.06	0.11	0.23	0.00	31.74	0.39	0.72	20.85	0.52	1.51	0.16	0.011	0.009	0.23	0.79	11.78	0.038	0.025	0.22	0.02	53.70	0.005	2.13	0.00	0.21	9.03	2.14	49.21	1.85	0.18	175.79	0.03	0.452	0.013	2.58	0.41	7.73	0.09
2040 Dec	Mean	105.29	125.84	0.03	0.01	0.82	0.06	0.13	0.29	0.00	32.16	0.50	0.73	26.78	0.58	1.80	0.16	0.013	0.009	0.23	0.80	11.94	0.049	0.031	0.23	0.02	68.90	0.005	2.71	0.00	0.26	9.16	2.74	62.85	1.87	0.18	218.83	0.04	0.458	0.015	3.13	0.46	9.37	0.09
2041 Jan	Mean	103.71	123.95	0.03	0.01	0.92	0.07	0.14	0.33	0.00	31.68	0.57	0.72	30.75	0.61	1.98	0.16	0.014	0.009	0.23	0.79	11.76	0.056	0.036	0.22	0.02	79.09	0.005	3.09	0.00	0.30	9.02	3.14	71.73	1.84	0.18	246.59	0.03	0.451	0.017	3.48	0.49	10.44	0.09
2041 Feb	Mean	101.02	120.75	0.03	0.01	0.94	0.07	0.15	0.34	0.00	30.86	0.59	0.70	31.56	0.61	2.01	0.16	0.014	0.009	0.22	0.77	11.46	0.058	0.037	0.22	0.02	81.18	0.004	3.15	0.00	0.30	8.78	3.22	73.17	1.80	0.18	251.05	0.03	0.439	0.017	3.53	0.49	10.61	0.09
2041 Mar	Mean	97.73	116.80	0.03	0.01	0.91	0.06	0.14	0.32	0.00	29.85	0.56	0.68	30.39	0.58	1.94	0.15	0.014	0.008	0.21	0.74	11.09	0.056	0.035	0.21	0.02	78.18	0.004	3.00	0.00	0.29	8.50	3.10	69.90	1.74	0.17	240.80	0.03	0.425	0.017	3.40	0.47	10.23	0.08
2041 Apr	Mean	268.82	321.30	0.04	0.03	1.21	0.14	0.21	0.39	0.01	82.12	0.73	1.86	35.36	1.18	3.28	0.42	0.030	0.023	0.59	2.04	30.49	0.069	0.041	0.58	0.06	92.65	0.012	3.43	0.00	0.38	23.38	3.53	79.06	4.78	0.47	306.73	0.09	1.169	0.028	4.86	0.92	19.15	0.23

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2043 Jan	Mean	104.79	125.25	0.03	0.01	0.89	0.07	0.14	0.30	0.00	32.01	0.55	0.72	29.38	0.60	1.93	0.16	0.014	0.009	0.23	0.80	11.89	0.054	0.034	0.23	0.02	75.62	0.005	2.71	0.00	0.28	9.11	3.00	63.59	1.86	0.18	227.58	0.03	0.456	0.017	3.31	0.48	10.08	0.09
2043 Feb	Mean	102.09	122.01	0.03	0.01	0.91	0.06	0.14	0.31	0.00	31.18	0.56	0.71	30.35	0.60	1.96	0.16	0.014	0.009	0.22	0.78	11.58	0.056	0.035	0.22	0.02	78.11	0.004	2.79	0.00	0.29	8.88	3.10	65.57	1.81	0.18	233.49	0.03	0.444	0.017	3.38	0.48	10.30	0.09
2043 Mar	Mean	98.64	117.89	0.03	0.01	0.88	0.06	0.14	0.30	0.00	30.13	0.54	0.68	29.31	0.58	1.89	0.15	0.014	0.009	0.22	0.75	11.19	0.054	0.034	0.21	0.02	75.43	0.004	2.68	0.00	0.28	8.58	3.00	63.09	1.75	0.17	225.07	0.03	0.429	0.016	3.26	0.47	9.95	0.09
2043 Apr	Mean	206.41	246.70	0.03	0.02	0.90	0.11	0.16	0.27	0.01	63.05	0.53	1.43	25.86	0.90	2.43	0.32	0.022	0.018	0.45	1.57	23.41	0.050	0.030	0.45	0.05	67.72	0.009	2.36	0.00	0.28	17.95	2.59	54.78	3.67	0.36	221.09	0.07	0.897	0.020	3.60	0.69	13.89	0.18
2043 May	Mean	4695.15	5611.73	0.32	0.45	8.96	2.15	1.93	2.08	0.21	1434.27	4.88	32.44	155.63	16.55	37.25	7.35	0.449	0.408	10.30	35.66	532.59	0.392	0.176	10.14	1.07	443.67	0.204	14.04	0.00	2.53	408.28	13.90	306.64	83.47	8.17	1977.37	1.57	20.414	0.295	42.32	12.32	240.74	4.08
2043 Jun	Mean	1994.65	2384.05	0.13	0.18	3.54	0.90	0.79	0.77	0.09	609.32	1.80	13.78	55.61	6.94	14.97	3.12	0.180	0.173	4.38	15.15	226.26	0.142	0.065	4.31	0.46	159.61	0.087	5.22	0.00	0.98	173.45	5.00	112.32	35.46	3.47	781.32	0.67	8.672	0.116	17.18	5.14	93.53	1.73
2043 Jul	Mean	188.88	225.75	0.02	0.02	0.63	0.09	0.12	0.17	0.01	57.70	0.34	1.30	16.12	0.75	1.82	0.30	0.017	0.016	0.41	1.43	21.43	0.031	0.019	0.41	0.04	42.35	0.008	1.49	0.00	0.19	16.42	1.63	34.21	3.36	0.33	151.31	0.06	0.821	0.014	2.63	0.57	9.90	0.16
2043 Aug	Mean	103.08	123.20	0.02	0.01	0.54	0.06	0.09	0.16	0.00	31.49	0.31	0.71	16.19	0.48	1.29	0.16	0.010	0.009	0.23	0.78	11.69	0.030	0.019	0.22	0.02	41.78	0.004	1.47	0.00	0.17	8.96	1.67	34.43	1.83	0.18	134.37	0.03	0.448	0.010	2.11	0.37	6.46	0.09
2043 Sep	Mean	101.67	121.52	0.02	0.01	0.56	0.06	0.09	0.17	0.00	31.06	0.33	0.70	17.22	0.48	1.33	0.16	0.010	0.009	0.22	0.77	11.53	0.032	0.020	0.22	0.02	44.43	0.004	1.56	0.00	0.18	8.84	1.77	36.61	1.81	0.18	141.13	0.03	0.442	0.011	2.20	0.38	6.71	0.09
2043 Oct	Mean	181.72	217.20	0.03	0.02	0.76	0.09	0.13	0.22	0.01	55.51	0.43	1.26	21.40	0.78	2.02	0.28	0.018	0.016	0.40	1.38	20.61	0.041	0.025	0.39	0.04	55.81	0.008	1.95	0.00	0.23	15.80	2.17	45.21	3.23	0.32	185.82	0.06	0.790	0.016	3.06	0.60	10.96	0.16
2043 Nov	Mean	105.18	125.71	0.02	0.01	0.63	0.06	0.10	0.20	0.00	32.13	0.37	0.73	19.55	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.93	0.036	0.023	0.23	0.02	50.39	0.005	1.79	0.00	0.20	9.15	2.01	41.87	1.87	0.18	158.52	0.04	0.457	0.012	2.43	0.40	7.40	0.09
2043 Dec	Mean	106.43	127.20	0.03	0.01	0.78	0.06	0.13	0.26	0.00	32.51	0.47	0.74	25.39	0.57	1.74	0.17	0.013	0.009	0.23	0.81	12.07	0.047	0.029	0.23	0.02	65.41	0.005	2.31	0.00	0.25	9.25	2.60	54.34	1.89	0.19	199.09	0.04	0.463	0.015	2.96	0.45	9.02	0.09
2044 Jan	Mean	104.89	125.36	0.03	0.01	0.89	0.07	0.14	0.29	0.00	32.04	0.55	0.72	29.30	0.60	1.92	0.16	0.014	0.009	0.23	0.80	11.90	0.054	0.034	0.23	0.02	75.44	0.005	2.66	0.00	0.28	9.12	3.00	62.62	1.86	0.18	225.57	0.03	0.456	0.017	3.30	0.48	10.07	0.09
2044 Feb	Mean	102.16	122.10	0.03	0.01	0.91	0.06	0.14	0.30	0.00	31.21	0.56	0.71	30.19	0.60	1.95	0.16	0.014	0.009	0.22	0.78	11.59	0.055	0.035	0.22	0.02	77.70	0.004	2.74	0.00	0.29	8.88	3.09	64.41	1.82	0.18	230.86	0.03	0.444	0.017	3.36	0.48	10.26	0.09
2044 Mar	Mean	98.70	117.97	0.03	0.01	0.87	0.06	0.14	0.29	0.00	30.15	0.54	0.68	29.07	0.58	1.88	0.15	0.013	0.009	0.22	0.75	11.20	0.053	0.033	0.21	0.02	74.84	0.004	2.62	0.00	0.28	8.58	2.97	61.82	1.75	0.17	222.03	0.03	0.429	0.016	3.24	0.46	9.89	0.09
2044 Apr	Mean	390.07	466.21	0.05	0.04	1.44	0.20	0.26	0.42	0.02	119.16	0.86	2.69	39.25	1.61	4.23	0.61	0.042	0.034	0.86	2.96	44.25	0.079	0.045	0.84	0.09	103.78	0.017	3.52	0.00	0.44	33.92	3.88	81.56	6.93	0.68	347.38	0.13	1.696	0.035	5.90	1.23	25.18	0.34
2044 May	Mean	4350.61	5199.93	0.30	0.41	8.23	1.99	1.78	1.88	0.19	1329.02	4.41	30.06	141.33	15.32	34.12	6.81	0.409	0.378	9.54	33.05	493.51	0.354	0.161	9.40	1.00	402.34	0.189	12.73	0.00	2.32	378.32	12.71	277.94	77.35	7.57	1816.25	1.45	18.916	0.269	39.03	11.39	217.93	3.78
2044 Jun	Mean	2588.42	3093.73	0.16	0.25	4.53	1.17	1.01	0.99	0.11	790.71	2.39	17.88	70.35	8.99	19.72	4.05	0.242	0.225	5.68	19.66	293.62	0.187	0.080	5.59	0.59	204.56	0.113	6.33	0.00	1.26	225.08	6.13	135.67	46.02	4.50	983.98	0.86	11.254	0.155	21.97	6.67	127.26	2.25
2044 Jul	Mean	183.35	219.14	0.02	0.02	0.61	0.09	0.11	0.17	0.01	56.01	0.33	1.27	15.58	0.73	1.77	0.29	0.017	0.016	0.40	1.39	20.80	0.030	0.018	0.40	0.04	40.97	0.008	1.40	0.00	0.18	15.94	1.57	32.42	3.26	0.32	145.12	0.06	0.797	0.014	2.54	0.55	9.67	0.16
2044 Aug	Mean	103.39	123.58	0.02	0.01	0.52	0.06	0.09	0.16	0.00	31.58	0.30	0.71	15.66	0.47	1.27	0.16	0.010	0.009	0.23	0.79	11.73	0.029	0.018	0.22	0.02	40.43	0.004	1.40	0.00	0.16	8.99	1.61	32.82	1.84	0.18	129.86	0.03	0.450	0.010	2.06	0.37	6.33	0.09
2044 Sep	Mean	101.77	121.64	0.02	0.01	0.56	0.06	0.09	0.17	0.00	31.09	0.33	0.70	17.22	0.48	1.33	0.16	0.010	0.009	0.22	0.77	11.54	0.032	0.020	0.22	0.02	44.44	0.004	1.53	0.00	0.18	8.85	1.77	35.99	1.81	0.18	139.99	0.03	0.442	0.011	2.19	0.38	6.72	0.09
2044 Oct	Mean	104.36	124.73	0.02	0.01	0.57	0.06	0.10	0.17	0.00	31.88	0.33	0.72	17.51	0.49	1.36	0.16	0.011	0.009	0.23	0.79	11.84	0.032	0.020	0.23	0.02	45.20	0.005	1.57	0.00	0.18	9.07	1.80	36.73	1.86	0.18	142.80	0.03	0.454	0.011	2.24	0.38	6.85	0.09
2044 Nov	Mean	104.99	125.49	0.02	0.01	0.63	0.06	0.10	0.20	0.00	32.07	0.37	0.73	19.62	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.91	0.036	0.023	0.23	0.02	50.59	0.005	1.76	0.00	0.20	9.13	2.02	41.26	1.87	0.18	157.55	0.04	0.456	0.012	2.43	0.40	7.41	0.09
2044 Dec	Mean	106.65	127.47	0.03	0.01	0.78	0.06	0.13	0.25	0.00	32.58	0.47	0.74	25.15	0.57	1.73	0.17	0.013	0.009	0.23	0.81	12.10	0.046	0.029	0.23	0.02	64.80	0.005	2.24	0.00	0.25	9.27	2.58	52.81	1.90	0.19	195.58	0.04	0.464	0.015	2.93	0.45	8.96	0.09
2045 Jan	Mean	105.14	125.66	0.03	0.01	0.88	0.07	0.14	0.29	0.00	32.12	0.54	0.73	28.95	0.60	1.91	0.16	0.014	0.009	0.23	0.80	11.93	0.053	0.033	0.23	0.02	74.55	0.005	2.57	0.00	0.28	9.14	2.96	60.68	1.87	0.18	220.97	0.04	0.457	0.016	3.26	0.48	9.97	0.09
2045 Feb	Mean	102.48	122.48	0.03	0.01	0.90	0.06	0.14	0.29	0.00	31.30	0.56	0.71	29.87	0.60	1.94	0.16	0.014	0.009	0.22	0.78	11.62	0.055	0.034	0.22	0.02	76.89	0.004	2.64	0.00	0.29	8.91	3.05	62.43	1.82	0.18	226.30	0.03	0.446	0.017	3.32	0.48	10.18	0.09

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2046 Nov	Mean	105.55	126.16	0.02	0.01	0.61	0.06	0.10	0.18	0.00	32.24	0.36	0.73	18.94	0.51	1.43	0.17	0.011	0.009	0.23	0.80	11.97	0.035	0.022	0.23	0.02	48.87	0.005	1.58	0.00	0.19	9.18	1.95	37.55	1.88	0.18	148.75	0.04	0.459	0.012	2.35	0.40	7.24	0.09
2046 Dec	Mean	107.34	128.30	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.79	0.46	0.74	24.44	0.56	1.70	0.17	0.013	0.009	0.24	0.82	12.18	0.045	0.028	0.23	0.02	63.01	0.005	2.04	0.00	0.24	9.33	2.51	48.43	1.91	0.19	185.46	0.04	0.467	0.014	2.85	0.45	8.78	0.09
2047 Jan	Mean	105.88	126.55	0.03	0.01	0.86	0.07	0.14	0.27	0.00	32.34	0.53	0.73	28.21	0.59	1.88	0.17	0.014	0.009	0.23	0.80	12.01	0.052	0.032	0.23	0.02	72.67	0.005	2.34	0.00	0.27	9.21	2.89	55.87	1.88	0.18	209.96	0.04	0.460	0.016	3.17	0.47	9.79	0.09
2047 Feb	Mean	103.14	123.28	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.51	0.54	0.71	29.11	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.70	0.053	0.033	0.22	0.02	74.99	0.004	2.42	0.00	0.28	8.97	2.98	57.63	1.83	0.18	215.25	0.03	0.448	0.016	3.23	0.48	9.98	0.09
2047 Mar	Mean	99.73	119.20	0.03	0.01	0.85	0.06	0.13	0.27	0.00	30.47	0.53	0.69	28.24	0.57	1.85	0.16	0.013	0.009	0.22	0.76	11.31	0.052	0.032	0.22	0.02	72.74	0.004	2.34	0.00	0.27	8.67	2.89	55.75	1.77	0.17	208.43	0.03	0.434	0.016	3.13	0.46	9.68	0.09
2047 Apr	Mean	321.63	384.42	0.05	0.04	1.25	0.16	0.22	0.35	0.01	98.25	0.75	2.22	34.57	1.35	3.60	0.50	0.035	0.028	0.71	2.44	36.48	0.069	0.039	0.69	0.07	91.33	0.014	2.84	0.00	0.38	27.97	3.42	66.57	5.72	0.56	291.40	0.11	1.398	0.030	5.01	1.04	21.49	0.28
2047 May	Mean	4718.20	5639.28	0.33	0.46	9.23	2.16	1.97	2.10	0.21	1441.31	5.11	32.60	165.24	16.71	38.05	7.39	0.458	0.410	10.35	35.84	535.21	0.413	0.184	10.19	1.08	469.80	0.205	13.66	0.00	2.62	410.28	14.79	301.91	83.88	8.21	1998.07	1.57	20.514	0.304	43.04	12.46	247.47	4.10
2047 Jun	Mean	2713.76	3243.54	0.17	0.25	4.67	1.23	1.05	0.97	0.12	829.00	2.42	18.75	70.27	9.40	20.41	4.25	0.250	0.236	5.95	20.61	307.84	0.188	0.080	5.86	0.62	205.04	0.118	6.03	0.00	1.29	235.98	6.12	129.02	48.25	4.72	998.24	0.91	11.799	0.159	22.70	6.96	130.80	2.36
2047 Jul	Mean	258.88	309.42	0.03	0.03	0.83	0.13	0.15	0.22	0.01	79.08	0.47	1.79	21.14	1.02	2.55	0.41	0.026	0.023	0.57	1.97	29.37	0.043	0.024	0.56	0.06	56.20	0.011	1.72	0.00	0.25	22.51	2.09	40.08	4.60	0.45	190.32	0.09	1.126	0.021	3.45	0.78	15.00	0.23
2047 Aug	Mean	103.86	124.13	0.02	0.01	0.51	0.06	0.09	0.14	0.00	31.73	0.29	0.72	15.24	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.78	0.028	0.018	0.22	0.02	39.38	0.005	1.25	0.00	0.16	9.03	1.57	29.68	1.85	0.18	122.89	0.03	0.452	0.010	2.01	0.36	6.23	0.09
2047 Sep	Mean	102.53	122.54	0.02	0.01	0.54	0.06	0.09	0.15	0.00	31.32	0.31	0.71	16.27	0.48	1.29	0.16	0.010	0.009	0.22	0.78	11.63	0.030	0.019	0.22	0.02	42.01	0.004	1.33	0.00	0.17	8.92	1.67	31.64	1.82	0.18	129.23	0.03	0.446	0.010	2.09	0.37	6.48	0.09
2047 Oct	Mean	150.64	180.05	0.03	0.02	0.71	0.08	0.12	0.20	0.01	46.02	0.42	1.04	20.78	0.67	1.84	0.24	0.016	0.013	0.33	1.14	17.09	0.040	0.024	0.33	0.03	54.19	0.007	1.67	0.00	0.22	13.10	2.10	39.71	2.68	0.26	166.76	0.05	0.655	0.015	2.77	0.52	10.18	0.13
2047 Nov	Mean	105.78	126.42	0.02	0.01	0.60	0.06	0.10	0.18	0.00	32.31	0.35	0.73	18.57	0.51	1.41	0.17	0.011	0.009	0.23	0.80	12.00	0.034	0.021	0.23	0.02	47.91	0.005	1.53	0.00	0.19	9.20	1.91	36.45	1.88	0.18	145.64	0.04	0.460	0.012	2.32	0.40	7.15	0.09
2047 Dec	Mean	107.41	128.38	0.03	0.01	0.75	0.06	0.12	0.23	0.00	32.81	0.45	0.74	24.05	0.56	1.68	0.17	0.012	0.009	0.24	0.82	12.18	0.044	0.027	0.23	0.02	62.00	0.005	1.98	0.00	0.24	9.34	2.47	47.24	1.91	0.19	182.09	0.04	0.467	0.014	2.81	0.44	8.67	0.09
2048 Jan	Mean	105.97	126.66	0.03	0.01	0.85	0.06	0.14	0.26	0.00	32.37	0.52	0.73	27.96	0.59	1.86	0.17	0.014	0.009	0.23	0.80	12.02	0.051	0.032	0.23	0.02	72.05	0.005	2.30	0.00	0.27	9.21	2.86	54.96	1.88	0.18	207.56	0.04	0.461	0.016	3.14	0.47	9.72	0.09
2048 Feb	Mean	103.21	123.36	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.53	0.54	0.71	28.99	0.59	1.90	0.16	0.014	0.009	0.23	0.78	11.71	0.053	0.033	0.22	0.02	74.69	0.004	2.39	0.00	0.28	8.97	2.97	57.01	1.83	0.18	213.77	0.03	0.449	0.016	3.22	0.47	9.95	0.09
2048 Mar	Mean	99.63	119.07	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.43	0.52	0.69	28.03	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.30	0.051	0.032	0.22	0.02	72.21	0.004	2.30	0.00	0.27	8.66	2.87	55.04	1.77	0.17	206.48	0.03	0.433	0.016	3.11	0.46	9.62	0.09
2048 Apr	Mean	267.46	319.68	0.04	0.03	1.08	0.14	0.19	0.31	0.01	81.70	0.64	1.85	30.29	1.13	3.03	0.42	0.029	0.023	0.59	2.03	30.34	0.060	0.034	0.58	0.06	79.72	0.012	2.50	0.00	0.33	23.26	3.02	58.71	4.76	0.47	253.58	0.09	1.163	0.025	4.32	0.87	17.73	0.23
2048 May	Mean	4978.88	5950.85	0.34	0.47	9.38	2.27	2.03	2.07	0.22	1520.94	5.02	34.40	160.16	17.51	38.99	7.79	0.468	0.433	10.92	37.82	564.78	0.403	0.181	10.75	1.14	456.67	0.216	13.50	0.00	2.64	432.95	14.39	296.04	88.52	8.66	2032.24	1.66	21.647	0.307	44.35	13.02	249.33	4.33
2048 Jun	Mean	2815.35	3364.95	0.18	0.26	4.89	1.27	1.09	1.02	0.12	860.03	2.50	19.45	74.50	9.76	21.11	4.41	0.256	0.245	6.18	21.38	319.36	0.196	0.085	6.08	0.64	216.03	0.122	6.43	0.00	1.35	244.81	6.58	138.13	50.05	4.90	1050.47	0.94	12.241	0.164	23.74	7.23	133.69	2.45
2048 Jul	Mean	119.39	142.70	0.02	0.01	0.45	0.06	0.08	0.12	0.01	36.47	0.24	0.82	12.03	0.49	1.19	0.19	0.010	0.010	0.26	0.91	13.54	0.023	0.014	0.26	0.03	31.26	0.005	1.01	0.00	0.14	10.38	1.24	23.70	2.12	0.21	105.57	0.04	0.519	0.009	1.83	0.38	5.96	0.10
2048 Aug	Mean	113.73	135.93	0.02	0.01	0.54	0.06	0.09	0.15	0.00	34.74	0.30	0.79	15.87	0.51	1.33	0.18	0.011	0.010	0.25	0.86	12.90	0.029	0.018	0.25	0.03	41.04	0.005	1.31	0.00	0.17	9.89	1.63	30.96	2.02	0.20	129.24	0.04	0.494	0.011	2.13	0.39	6.67	0.10
2048 Sep	Mean	139.09	166.24	0.02	0.01	0.64	0.07	0.11	0.18	0.01	42.49	0.37	0.96	18.74	0.62	1.65	0.22	0.014	0.012	0.31	1.06	15.78	0.035	0.021	0.30	0.03	48.77	0.006	1.52	0.00	0.20	12.09	1.91	35.96	2.47	0.24	151.74	0.05	0.605	0.014	2.52	0.48	8.87	0.12
2048 Oct	Mean	125.43	149.92	0.02	0.01	0.62	0.07	0.11	0.17	0.01	38.32	0.35	0.87	18.28	0.57	1.51	0.20	0.012	0.011	0.28	0.95	14.23	0.034	0.021	0.27	0.03	47.26	0.005	1.51	0.00	0.19	10.91	1.88	35.74	2.23	0.22	147.74	0.04	0.545	0.012	2.42	0.44	7.59	0.11
2048 Nov	Mean	139.40	166.61	0.03	0.01	0.71	0.07	0.12	0.20	0.01	42.58	0.41	0.96	21.12	0.64	1.74	0.22	0.014	0.012	0.31	1.06	15.81	0.039	0.024	0.30	0.03	54.74	0.006	1.75	0.00	0.22	12.12	2.16	41.40	2.48	0.24	169.30	0.05	0.606	0.014	2.75	0.50	9.08	0.12
2048 Dec	Mean	107.27	128.21	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.77	0.46	0.74	24.53	0.56	1.71	0.17	0.013	0.009	0.24	0.81	12.17	0.045	0.028	0.23	0.02	63.23	0.005	2.02	0.00	0.24	9.33	2.52	48.20	1.91	0.19	185.25	0.04	0.466	0.014	2.85	0.45	8.80	0.09
2049 Jan</																																												

Table A-8
Monthly WQ Report for Scenario A.2.d - Interim/Ultimate WRD Sediment Pond, RCP 4.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2050 Sep	Mean	157.03	187.68	0.02	0.02	0.67	0.08	0.12	0.19	0.01	47.97	0.39	1.08	19.19	0.68	1.78	0.25	0.016	0.014	0.34	1.19	17.81	0.037	0.022	0.34	0.04	50.03	0.007	1.58	0.00	0.21	13.65	1.95	37.21	2.79	0.27	159.16	0.05	0.683	0.014	2.68	0.52	9.57	0.14
2050 Oct	Mean	107.38	128.34	0.02	0.01	0.57	0.06	0.10	0.16	0.00	32.80	0.33	0.74	17.20	0.50	1.36	0.17	0.011	0.009	0.24	0.82	12.18	0.032	0.020	0.23	0.02	44.42	0.005	1.42	0.00	0.18	9.34	1.77	33.74	1.91	0.19	136.91	0.04	0.467	0.011	2.21	0.39	6.86	0.09
2050 Nov	Mean	105.35	125.92	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.18	0.36	0.73	19.29	0.51	1.45	0.16	0.011	0.009	0.23	0.80	11.95	0.035	0.022	0.23	0.02	49.78	0.005	1.60	0.00	0.20	9.16	1.98	38.02	1.87	0.18	150.60	0.04	0.458	0.012	2.38	0.40	7.33	0.09
2050 Dec	Mean	107.09	128.00	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.71	0.46	0.74	24.53	0.56	1.71	0.17	0.013	0.009	0.23	0.81	12.15	0.045	0.028	0.23	0.02	63.22	0.005	2.03	0.00	0.24	9.31	2.52	48.38	1.90	0.19	185.54	0.04	0.466	0.014	2.85	0.45	8.79	0.09
2051 Jan	Mean	105.81	126.46	0.03	0.01	0.86	0.07	0.14	0.27	0.00	32.32	0.53	0.73	28.23	0.59	1.88	0.17	0.014	0.009	0.23	0.80	12.00	0.052	0.032	0.23	0.02	72.74	0.005	2.34	0.00	0.27	9.20	2.89	55.72	1.88	0.18	209.73	0.04	0.460	0.016	3.17	0.47	9.79	0.09
2051 Feb	Mean	103.13	123.26	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.50	0.54	0.71	29.12	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.70	0.053	0.033	0.22	0.02	75.01	0.004	2.41	0.00	0.28	8.97	2.98	57.51	1.83	0.18	215.04	0.03	0.448	0.016	3.23	0.48	9.98	0.09
2051 Mar	Mean	99.59	119.03	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.42	0.52	0.69	28.08	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.30	0.051	0.032	0.22	0.02	72.35	0.004	2.32	0.00	0.27	8.66	2.87	55.40	1.77	0.17	207.30	0.03	0.433	0.016	3.12	0.46	9.63	0.09
2051 Apr	Mean	209.38	250.25	0.03	0.02	0.94	0.11	0.16	0.27	0.01	63.96	0.56	1.45	27.39	0.92	2.53	0.33	0.023	0.018	0.46	1.59	23.75	0.053	0.031	0.45	0.05	71.71	0.009	2.27	0.00	0.29	18.21	2.75	53.47	3.72	0.36	223.60	0.07	0.910	0.021	3.71	0.71	14.47	0.18
2051 May	Mean	4442.47	5309.71	0.30	0.43	8.41	2.03	1.82	1.87	0.19	1357.08	4.52	30.69	144.44	15.64	34.93	6.95	0.420	0.386	9.74	33.74	503.93	0.363	0.163	9.60	1.02	411.76	0.193	12.18	0.00	2.37	386.30	12.96	267.27	78.98	7.73	1822.57	1.48	19.315	0.276	39.69	11.63	224.01	3.86
2051 Jun	Mean	1984.76	2372.22	0.13	0.18	3.47	0.90	0.78	0.72	0.09	606.30	1.74	13.71	53.33	6.89	14.76	3.11	0.177	0.173	4.35	15.08	225.14	0.137	0.062	4.29	0.45	153.53	0.086	4.70	0.00	0.96	172.59	4.80	101.19	35.29	3.45	752.41	0.66	8.629	0.114	16.87	5.10	91.86	1.73
2051 Jul	Mean	130.21	155.62	0.02	0.01	0.48	0.07	0.09	0.13	0.01	39.77	0.25	0.90	12.81	0.54	1.28	0.20	0.011	0.011	0.29	0.99	14.77	0.024	0.015	0.28	0.03	33.28	0.006	1.09	0.00	0.14	11.32	1.32	25.42	2.31	0.23	113.46	0.04	0.566	0.010	1.97	0.41	6.39	0.11
2051 Aug	Mean	106.57	127.37	0.02	0.01	0.52	0.06	0.09	0.15	0.00	32.55	0.29	0.74	15.41	0.48	1.27	0.17	0.010	0.009	0.23	0.81	12.09	0.028	0.018	0.23	0.02	39.84	0.005	1.28	0.00	0.16	9.27	1.59	30.24	1.89	0.19	125.02	0.04	0.463	0.010	2.05	0.37	6.35	0.09
2051 Sep	Mean	152.95	182.80	0.02	0.02	0.67	0.08	0.12	0.19	0.01	46.72	0.39	1.06	19.18	0.67	1.76	0.24	0.015	0.013	0.34	1.16	17.35	0.037	0.022	0.33	0.04	50.02	0.007	1.57	0.00	0.21	13.30	1.95	37.13	2.72	0.27	158.04	0.05	0.665	0.014	2.65	0.51	9.55	0.13
2051 Oct	Mean	111.91	133.76	0.02	0.01	0.58	0.06	0.10	0.17	0.00	34.19	0.33	0.77	17.41	0.52	1.39	0.18	0.011	0.010	0.25	0.85	12.69	0.032	0.020	0.24	0.03	44.97	0.005	1.45	0.00	0.18	9.73	1.79	34.35	1.99	0.19	139.73	0.04	0.487	0.011	2.26	0.40	6.97	0.10
2051 Nov	Mean	105.43	126.01	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.21	0.36	0.73	19.26	0.51	1.45	0.17	0.011	0.009	0.23	0.80	11.96	0.035	0.022	0.23	0.02	49.70	0.005	1.61	0.00	0.20	9.17	1.98	38.12	1.87	0.18	150.73	0.04	0.458	0.012	2.38	0.40	7.32	0.09
2051 Dec	Mean	107.10	128.01	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.72	0.46	0.74	24.66	0.57	1.71	0.17	0.013	0.009	0.23	0.81	12.15	0.045	0.028	0.23	0.02	63.55	0.005	2.05	0.00	0.24	9.31	2.53	48.86	1.90	0.19	186.83	0.04	0.466	0.014	2.87	0.45	8.83	0.09
2052 Jan	Mean	105.74	126.38	0.03	0.01	0.86	0.07	0.14	0.27	0.00	32.30	0.53	0.73	28.34	0.59	1.88	0.17	0.014	0.009	0.23	0.80	11.99	0.052	0.032	0.23	0.02	73.01	0.005	2.36	0.00	0.28	9.19	2.90	56.25	1.88	0.18	211.01	0.04	0.460	0.016	3.18	0.48	9.82	0.09
2052 Feb	Mean	103.03	123.15	0.03	0.01	0.88	0.06	0.14	0.28	0.00	31.47	0.54	0.71	29.21	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.69	0.053	0.033	0.22	0.02	75.24	0.004	2.44	0.00	0.28	8.96	2.99	58.04	1.83	0.18	216.28	0.03	0.448	0.016	3.24	0.48	10.01	0.09
2052 Mar	Mean	99.56	118.99	0.03	0.01	0.85	0.06	0.13	0.27	0.00	30.41	0.53	0.69	28.25	0.57	1.85	0.16	0.013	0.009	0.22	0.76	11.29	0.052	0.032	0.22	0.02	72.77	0.004	2.35	0.00	0.27	8.66	2.89	56.09	1.77	0.17	209.08	0.03	0.433	0.016	3.13	0.46	9.68	0.09
2052 Apr	Mean	206.57	246.90	0.04	0.02	1.00	0.11	0.17	0.30	0.01	63.10	0.61	1.43	29.84	0.93	2.65	0.32	0.024	0.018	0.45	1.57	23.43	0.058	0.034	0.45	0.05	78.15	0.009	2.47	0.00	0.31	17.96	2.99	58.40	3.67	0.36	238.93	0.07	0.898	0.022	3.90	0.73	15.50	0.18
2052 May	Mean	4665.87	5576.73	0.32	0.46	8.78	2.13	1.90	1.97	0.20	1425.32	4.84	32.24	150.24	16.41	37.10	7.30	0.452	0.406	10.23	35.44	529.27	0.386	0.167	10.08	1.07	431.29	0.203	12.56	0.00	2.47	405.73	13.24	275.04	82.95	8.11	1892.18	1.56	20.286	0.296	41.39	12.22	242.85	4.06
2052 Jun	Mean	2117.21	2530.53	0.13	0.19	3.70	0.96	0.83	0.77	0.09	646.76	1.87	14.63	56.72	7.35	15.81	3.31	0.191	0.184	4.64	16.08	240.17	0.147	0.066	4.57	0.48	163.73	0.092	4.99	0.00	1.02	184.11	5.06	107.17	37.64	3.68	799.53	0.71	9.205	0.122	17.96	5.44	99.20	1.84
2052 Jul	Mean	154.30	184.42	0.02	0.01	0.52	0.08	0.10	0.14	0.01	47.13	0.28	1.07	13.52	0.62	1.49	0.24	0.014	0.013	0.34	1.17	17.50	0.026	0.016	0.33	0.04	35.47	0.007	1.15	0.00	0.16	13.42	1.37	26.72	2.74	0.27	122.46	0.05	0.671	0.012	2.17	0.47	8.03	0.13
2052 Aug	Mean	103.62	123.85	0.02	0.01	0.52	0.06	0.09	0.15	0.00	31.65	0.29	0.72	15.38	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.75	0.028	0.018	0.22	0.02	39.73	0.005	1.28	0.00	0.16	9.01	1.58	30.33	1.84	0.18	124.43	0.03	0.451	0.010	2.02	0.37	6.27	0.09
2052 Sep	Mean	151.60	181.20	0.03	0.02	0.77	0.08	0.13	0.22	0.01	46.31	0.45	1.05	23.06	0.70	1.90	0.24	0.016	0.013	0.33	1.15	17.20	0.043	0.026	0.33	0.03	59.81	0.007	1.90	0.00	0.24	13.18	2.36	44.96	2.70	0.26	184.16	0.05	0.659	0.016	2.99	0.54	10.03	0.13
2052 Oct	Mean	102.26	122.22	0.02	0.01	0.55	0.06	0.09	0.16	0.00	31.24	0.31	0.71	16.52	0.48	1.30	0.16	0.010	0.009	0.22	0.78	11.60	0.030	0.019	0.22	0.02	42.64	0.004	1.38	0.00	0.17	8.89	1.70	32.71	1.82	0.18	131.91	0.03	0.445	0.011	2.12	0.37	6.53	0.09
2052 Nov																																												

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2020 Jan	Mean	112.52	128.90	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.33	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.03	0.91	1.72	0.22	17.63	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.37	132.16	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.17	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.59	11.90	0.000	0.001	0.25	0.02	0.21	0.005	0.05	1.05	0.01	7.12	0.03	0.99	1.76	0.22	18.36	0.03	0.541	0.003	0.60	0.23	0.73	0.11
2020 Mar	Mean	107.17	122.76	0.01	0.00	0.11	0.04	0.03	0.01	0.01	31.74	0.01	0.57	0.05	0.30	0.19	0.13	0.002	0.005	0.20	0.55	11.06	0.000	0.001	0.23	0.01	0.25	0.005	0.05	0.97	0.01	6.62	0.03	0.96	1.64	0.21	17.32	0.03	0.503	0.003	0.56	0.22	0.71	0.10
2020 Apr	Mean	100.69	115.35	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.83	0.01	0.53	0.05	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.39	0.000	0.001	0.21	0.01	0.25	0.005	0.05	0.91	0.01	6.22	0.03	0.90	1.54	0.20	16.25	0.03	0.472	0.003	0.52	0.20	0.74	0.09
2020 May	Mean	104.19	119.36	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.86	0.01	0.55	0.06	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.75	0.000	0.001	0.22	0.01	0.29	0.005	0.05	0.95	0.01	6.44	0.03	0.95	1.59	0.20	16.96	0.03	0.489	0.003	0.54	0.21	0.80	0.10
2020 Jun	Mean	105.76	121.16	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.33	0.01	0.56	0.09	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.91	0.000	0.001	0.23	0.01	0.35	0.005	0.05	0.96	0.01	6.53	0.03	1.04	1.61	0.21	17.62	0.03	0.496	0.003	0.56	0.21	0.74	0.10
2020 Jul	Mean	106.22	121.68	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.46	0.01	0.56	0.12	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.96	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.96	0.01	6.56	0.04	1.13	1.62	0.21	18.16	0.03	0.498	0.003	0.56	0.21	0.75	0.10
2020 Aug	Mean	106.38	121.86	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.51	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.97	0.000	0.001	0.23	0.01	0.48	0.005	0.05	0.97	0.01	6.57	0.04	1.17	1.62	0.21	18.44	0.03	0.499	0.003	0.57	0.21	0.75	0.10
2020 Sep	Mean	106.12	121.56	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.43	0.01	0.56	0.14	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.000	0.001	0.23	0.01	0.50	0.005	0.05	0.96	0.01	6.55	0.04	1.19	1.62	0.21	18.51	0.03	0.498	0.003	0.57	0.21	0.74	0.10
2020 Oct	Mean	106.14	121.59	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.44	0.01	0.56	0.17	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.95	0.001	0.001	0.23	0.01	0.56	0.005	0.05	0.96	0.01	6.55	0.05	1.25	1.62	0.21	18.85	0.03	0.498	0.003	0.57	0.21	0.75	0.10
2020 Nov	Mean	108.72	124.55	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.20	0.01	0.58	0.23	0.30	0.20	0.13	0.002	0.005	0.20	0.56	11.22	0.001	0.001	0.23	0.01	0.75	0.005	0.05	0.99	0.02	6.71	0.06	1.44	1.66	0.21	20.21	0.03	0.510	0.003	0.60	0.22	0.79	0.10
2020 Dec	Mean	113.97	130.56	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.76	0.02	0.60	0.40	0.32	0.22	0.14	0.003	0.005	0.21	0.59	11.76	0.001	0.001	0.24	0.01	1.20	0.005	0.05	1.04	0.02	7.04	0.08	1.89	1.74	0.22	23.39	0.03	0.534	0.003	0.65	0.23	0.88	0.11
2021 Jan	Mean	116.73	133.72	0.01	0.00	0.14	0.04	0.04	0.02	0.01	34.57	0.03	0.62	0.74	0.33	0.25	0.14	0.003	0.005	0.22	0.60	12.04	0.002	0.002	0.25	0.02	2.13	0.005	0.06	1.06	0.02	7.21	0.13	2.78	1.78	0.23	28.78	0.03	0.547	0.004	0.73	0.24	1.03	0.11
2021 Feb	Mean	113.16	129.63	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.52	0.04	0.60	1.06	0.32	0.27	0.14	0.003	0.005	0.21	0.58	11.67	0.003	0.003	0.24	0.01	3.00	0.005	0.06	1.03	0.03	6.99	0.18	3.56	1.73	0.22	32.87	0.03	0.531	0.004	0.76	0.24	1.14	0.11
2021 Mar	Mean	104.12	119.28	0.01	0.00	0.13	0.03	0.03	0.02	0.01	30.84	0.03	0.55	0.73	0.30	0.23	0.13	0.003	0.005	0.20	0.54	10.74	0.002	0.002	0.22	0.01	2.09	0.005	0.05	0.94	0.02	6.43	0.13	2.64	1.59	0.20	26.62	0.03	0.488	0.003	0.66	0.22	1.00	0.10
2021 Apr	Mean	99.17	113.65	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.38	0.02	0.53	0.29	0.28	0.20	0.12	0.003	0.005	0.19	0.51	10.24	0.001	0.001	0.21	0.01	0.90	0.005	0.05	0.89	0.02	6.15	0.06	1.46	1.52	0.19	19.37	0.03	0.465	0.003	0.56	0.20	0.98	0.09
2021 May	Mean	103.07	118.15	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.54	0.01	0.55	0.23	0.29	0.21	0.13	0.003	0.005	0.19	0.54	10.65	0.001	0.001	0.22	0.01	0.78	0.005	0.05	0.92	0.02	6.40	0.05	1.34	1.58	0.20	19.17	0.03	0.483	0.003	0.57	0.21	1.08	0.10
2021 Jun	Mean	105.27	120.62	0.01	0.00	0.12	0.03	0.03	0.02	0.01	31.18	0.02	0.56	0.36	0.29	0.21	0.13	0.003	0.005	0.20	0.54	10.87	0.001	0.001	0.22	0.01	1.10	0.005	0.05	0.95	0.02	6.51	0.07	1.72	1.61	0.20	21.47	0.03	0.494	0.003	0.60	0.22	0.92	0.10
2021 Jul	Mean	105.72	121.12	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.32	0.02	0.56	0.56	0.30	0.22	0.13	0.003	0.005	0.20	0.55	10.91	0.002	0.002	0.23	0.01	1.64	0.005	0.05	0.96	0.02	6.53	0.10	2.23	1.61	0.21	24.45	0.03	0.496	0.003	0.64	0.22	0.93	0.10
2021 Aug	Mean	105.75	121.14	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.32	0.03	0.56	0.71	0.30	0.23	0.13	0.003	0.005	0.20	0.55	10.91	0.002	0.002	0.23	0.01	2.05	0.005	0.05	0.96	0.02	6.53	0.12	2.62	1.61	0.21	26.65	0.03	0.496	0.003	0.67	0.22	0.98	0.10
2021 Sep	Mean	105.31	120.65	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.19	0.03	0.56	0.84	0.30	0.24	0.13	0.003	0.005	0.20	0.54	10.87	0.002	0.002	0.22	0.01	2.40	0.005	0.05	0.96	0.02	6.51	0.14	2.94	1.61	0.20	28.46	0.03	0.494	0.003	0.69	0.22	1.02	0.10
2021 Oct	Mean	105.14	120.45	0.01	0.00	0.14	0.03	0.04	0.02	0.01	31.14	0.03	0.56	1.03	0.30	0.25	0.13	0.003	0.005	0.20	0.54	10.85	0.003	0.003	0.22	0.01	2.93	0.005	0.05	0.95	0.03	6.49	0.17	3.43	1.60	0.20	31.23	0.03	0.493	0.003	0.72	0.22	1.10	0.10
2021 Nov	Mean	107.44	123.08	0.01	0.00	0.16	0.03	0.04	0.02	0.01	31.82	0.04	0.57	1.37	0.31	0.28	0.13	0.003	0.005	0.20	0.55	11.09	0.004	0.003	0.23	0.01	3.86	0.005	0.06	0.98	0.03	6.64	0.22	4.32	1.64	0.21	36.55	0.03	0.504	0.004	0.79	0.23	1.25	0.10
2021 Dec	Mean	112.18	128.51	0.01	0.00	0.19	0.04	0.04	0.03	0.01	33.23	0.06	0.59	2.14	0.34	0.34	0.14	0.003	0.005	0.21	0.58	11.57	0.006	0.005	0.24	0.01	5.97	0.005	0.06	1.02	0.04	6.93	0.34	6.31	1.71	0.22	48.47	0.03	0.526	0.004	0.95	0.25	1.58	0.11
2022 Jan	Mean	113.51	130.04	0.01	0.00	0.24	0.04	0.05	0.03	0.01	33.62	0.08	0.60	2.26	0.36	0.43	0.14	0.004	0.005	0.21	0.59	11.71	0.009	0.005	0.24	0.01	5.97	0.005	0.07	1.03	0.06	7.01	0.53	5.48	1.73	0.22	49.16	0.03	0.532	0.005	0.97	0.27	2.10	0.11
2022 Feb	Mean	109.03	124.90	0.01	0.00	0.28	0.04	0.05	0.03	0.01	32.30	0.08	0.58	1.87	0.36	0.49	0.14	0.004	0.005	0.21	0.56	11.25	0.012	0.005	0.23	0.01	4.54	0.005	0.07	0.99	0.07	6.73	0.67	3.17	1.66	0.21	41.46	0.03	0.511	0.006	0.87	0.27	2.46	0.10
2022 Mar	Mean	100.96	115.66	0.01	0.00	0.23	0.03	0.05	0.02	0.01	29.91	0.06	0.53	1.28	0.32	0.42	0.13	0.004	0.005	0.19																								

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jul	Mean	100.76	115.45	0.01	0.00	0.29	0.04	0.05	0.03	0.01	29.85	0.11	0.53	1.97	0.34	0.53	0.12	0.004	0.005	0.19	0.52	10.40	0.013	0.005	0.21	0.01	4.68	0.005	0.07	0.91	0.08	6.23	0.75	2.84	1.54	0.20	41.01	0.03	0.472	0.006	0.84	0.26	2.78	0.09
2023 Aug	Mean	100.15	114.74	0.01	0.00	0.32	0.04	0.06	0.03	0.01	29.67	0.13	0.53	2.32	0.35	0.58	0.12	0.005	0.005	0.19	0.52	10.34	0.016	0.006	0.21	0.01	5.46	0.005	0.07	0.91	0.09	6.19	0.88	3.19	1.53	0.19	45.35	0.03	0.470	0.007	0.90	0.27	3.09	0.09
2023 Sep	Mean	99.40	113.88	0.01	0.00	0.34	0.04	0.06	0.03	0.01	29.44	0.14	0.53	2.52	0.35	0.62	0.12	0.005	0.005	0.19	0.51	10.26	0.017	0.007	0.21	0.01	5.92	0.005	0.08	0.90	0.09	6.14	0.96	3.40	1.52	0.19	47.84	0.03	0.466	0.007	0.93	0.27	3.26	0.09
2023 Oct	Mean	99.10	113.53	0.01	0.00	0.35	0.04	0.06	0.03	0.01	29.35	0.15	0.52	2.61	0.36	0.63	0.12	0.005	0.005	0.19	0.51	10.23	0.018	0.007	0.21	0.01	6.13	0.005	0.08	0.90	0.10	6.12	0.99	3.49	1.51	0.19	48.98	0.03	0.465	0.007	0.94	0.28	3.35	0.09
2023 Nov	Mean	101.39	116.16	0.01	0.00	0.36	0.04	0.06	0.03	0.01	30.03	0.15	0.54	2.64	0.36	0.64	0.13	0.005	0.005	0.19	0.52	10.46	0.018	0.007	0.22	0.01	6.20	0.005	0.08	0.92	0.10	6.27	1.00	3.54	1.55	0.20	49.69	0.03	0.475	0.007	0.96	0.28	3.43	0.10
2023 Dec	Mean	105.65	121.04	0.02	0.01	0.42	0.04	0.07	0.04	0.01	31.29	0.18	0.56	3.19	0.39	0.75	0.13	0.006	0.005	0.20	0.55	10.90	0.022	0.008	0.23	0.01	7.48	0.005	0.09	0.96	0.12	6.53	1.21	4.15	1.61	0.21	57.53	0.03	0.495	0.008	1.07	0.31	3.99	0.10
2024 Jan	Mean	105.53	120.90	0.02	0.01	0.50	0.04	0.08	0.05	0.01	31.26	0.22	0.56	3.98	0.42	0.90	0.13	0.007	0.005	0.20	0.54	10.89	0.028	0.010	0.23	0.01	9.22	0.005	0.10	0.96	0.14	6.52	1.54	4.72	1.61	0.20	67.40	0.03	0.495	0.010	1.20	0.33	4.87	0.10
2024 Feb	Mean	98.47	112.81	0.02	0.01	0.51	0.04	0.09	0.05	0.01	29.17	0.22	0.52	4.07	0.41	0.93	0.12	0.007	0.004	0.19	0.51	10.16	0.029	0.010	0.21	0.01	9.34	0.004	0.10	0.89	0.15	6.08	1.61	4.50	1.50	0.19	67.14	0.03	0.462	0.010	1.17	0.32	5.03	0.09
2024 Mar	Mean	95.75	109.73	0.01	0.01	0.37	0.04	0.06	0.03	0.01	28.37	0.14	0.51	2.66	0.35	0.67	0.12	0.005	0.004	0.18	0.50	9.89	0.019	0.007	0.20	0.01	6.17	0.004	0.08	0.86	0.10	5.93	1.06	3.15	1.46	0.19	48.57	0.03	0.449	0.007	0.93	0.28	3.76	0.09
2024 Apr	Mean	92.11	105.68	0.01	0.00	0.22	0.03	0.04	0.02	0.01	27.31	0.08	0.49	1.29	0.30	0.44	0.12	0.005	0.004	0.17	0.48	9.54	0.010	0.003	0.20	0.01	3.15	0.004	0.06	0.81	0.05	5.77	0.49	1.85	1.41	0.18	30.12	0.03	0.431	0.005	0.68	0.22	2.94	0.09
2024 May	Mean	95.99	110.17	0.01	0.00	0.19	0.03	0.04	0.02	0.01	28.47	0.06	0.51	1.03	0.30	0.41	0.12	0.005	0.005	0.18	0.51	9.95	0.008	0.003	0.20	0.01	2.60	0.004	0.06	0.83	0.05	6.04	0.39	1.64	1.48	0.19	27.37	0.03	0.449	0.005	0.66	0.22	2.90	0.09
2024 Jun	Mean	99.72	114.31	0.01	0.00	0.26	0.04	0.05	0.03	0.01	29.55	0.09	0.53	1.64	0.33	0.49	0.12	0.005	0.005	0.19	0.52	10.30	0.012	0.004	0.21	0.01	3.88	0.005	0.07	0.89	0.07	6.19	0.65	2.25	1.53	0.19	36.10	0.03	0.467	0.006	0.78	0.25	2.84	0.09
2024 Jul	Mean	98.91	113.34	0.01	0.00	0.35	0.04	0.06	0.03	0.01	29.30	0.13	0.52	2.44	0.36	0.63	0.12	0.005	0.005	0.19	0.51	10.21	0.017	0.006	0.21	0.01	5.67	0.005	0.08	0.89	0.10	6.12	0.98	2.98	1.51	0.19	46.38	0.03	0.464	0.007	0.91	0.27	3.46	0.09
2024 Aug	Mean	97.85	112.12	0.02	0.01	0.39	0.04	0.07	0.04	0.01	28.99	0.16	0.52	2.88	0.37	0.71	0.12	0.006	0.004	0.18	0.51	10.10	0.021	0.007	0.21	0.01	6.65	0.004	0.08	0.89	0.11	6.05	1.15	3.37	1.49	0.19	51.79	0.03	0.459	0.008	0.97	0.29	3.86	0.09
2024 Sep	Mean	96.85	110.96	0.02	0.01	0.41	0.04	0.07	0.04	0.01	28.69	0.17	0.51	3.10	0.37	0.75	0.12	0.006	0.004	0.18	0.50	9.99	0.022	0.008	0.21	0.01	7.13	0.004	0.09	0.88	0.12	5.99	1.24	3.56	1.48	0.19	54.45	0.03	0.454	0.008	1.00	0.29	4.04	0.09
2024 Oct	Mean	96.37	110.41	0.02	0.01	0.42	0.04	0.07	0.04	0.01	28.55	0.17	0.51	3.14	0.37	0.76	0.12	0.006	0.004	0.18	0.50	9.95	0.022	0.008	0.21	0.01	7.24	0.004	0.09	0.87	0.12	5.96	1.25	3.60	1.47	0.19	54.95	0.03	0.452	0.008	1.01	0.29	4.12	0.09
2024 Nov	Mean	98.47	112.83	0.02	0.01	0.43	0.04	0.07	0.04	0.01	29.17	0.17	0.52	3.21	0.38	0.77	0.12	0.006	0.005	0.19	0.51	10.16	0.023	0.008	0.21	0.01	7.40	0.004	0.09	0.89	0.12	6.09	1.28	3.67	1.50	0.19	56.07	0.03	0.462	0.008	1.03	0.30	4.24	0.09
2024 Dec	Mean	100.59	115.24	0.02	0.01	0.50	0.04	0.08	0.05	0.01	29.80	0.21	0.53	3.91	0.41	0.91	0.12	0.007	0.005	0.19	0.52	10.38	0.028	0.010	0.21	0.01	8.98	0.005	0.10	0.91	0.15	6.22	1.56	4.32	1.54	0.20	65.38	0.03	0.472	0.010	1.16	0.32	4.94	0.09
2025 Jan	Mean	103.26	118.30	0.02	0.01	0.47	0.04	0.08	0.04	0.01	30.59	0.18	0.55	3.43	0.40	0.84	0.13	0.006	0.005	0.19	0.53	10.65	0.025	0.009	0.22	0.01	7.80	0.005	0.09	0.94	0.13	6.38	1.42	3.62	1.58	0.20	59.43	0.03	0.484	0.009	1.09	0.32	4.48	0.10
2025 Feb	Mean	103.74	118.84	0.02	0.01	0.45	0.04	0.08	0.04	0.01	30.73	0.17	0.55	3.27	0.40	0.82	0.13	0.006	0.005	0.20	0.53	10.70	0.024	0.008	0.22	0.01	7.40	0.005	0.09	0.94	0.13	6.41	1.37	3.38	1.58	0.20	57.32	0.03	0.487	0.009	1.06	0.32	4.33	0.10
2025 Mar	Mean	101.36	116.11	0.02	0.01	0.43	0.04	0.07	0.04	0.01	30.02	0.16	0.54	3.02	0.39	0.76	0.13	0.006	0.005	0.19	0.52	10.46	0.023	0.008	0.22	0.01	6.84	0.005	0.09	0.92	0.12	6.26	1.27	3.14	1.55	0.20	53.82	0.03	0.475	0.008	1.01	0.30	4.05	0.10
2025 Apr	Mean	558.46	640.74	0.04	0.02	1.02	0.19	0.22	0.11	0.03	165.60	0.28	2.99	4.61	1.70	2.04	0.70	0.024	0.026	1.06	2.93	57.82	0.036	0.013	1.19	0.08	11.44	0.025	0.32	4.89	0.23	34.99	1.88	7.91	8.57	1.08	142.89	0.17	2.612	0.026	3.60	1.27	12.83	0.52
2025 May	Mean	4777.50	5484.50	0.29	0.20	6.31	1.55	1.57	0.78	0.26	1417.24	1.32	25.65	17.69	13.80	13.70	5.99	0.196	0.227	9.07	25.20	495.29	0.151	0.059	10.19	0.65	50.80	0.217	2.49	41.28	1.19	300.90	6.80	50.83	73.50	9.23	946.09	1.42	22.324	0.185	27.29	10.13	94.93	4.46
2025 Jun	Mean	1869.34	2144.73	0.11	0.07	2.39	0.60	0.60	0.29	0.10	554.31	0.46	10.00	5.93	5.36	4.97	2.34	0.069	0.088	3.54	9.80	193.54	0.050	0.021	3.99	0.25	17.13	0.085	0.95	16.38	0.43	117.11	2.37	19.18	28.70	3.62	358.74	0.56	8.744	0.068	10.52	3.93	32.14	1.75
2025 Jul	Mean	102.54	117.48	0.01	0.00	0.24	0.04	0.05	0.02	0.01	30.37	0.07	0.54	1.32	0.33	0.44	0.13	0.004	0.005	0.19	0.53	10.58	0.010	0.004	0.22	0.01	3.05	0.005	0.07	0.93	0.06	6.33	0.57	1.83	1.57	0.20	32.52	0.03	0.481	0.005	0.74	0.25	2.17	0.10
2025 Aug	Mean	101.28	116.02	0.01	0.00	0.29	0.04	0.05	0.03	0.01	30.00	0.09	0.54	1.74	0.34	0.51	0.13	0.004	0.005	0.19	0.52	10.45	0.013	0.005	0.22	0.01	3.98	0.005	0.07	0.92	0.07	6.25	0.74	2.14	1.55	0.20	37.58	0.03	0.475	0.006	0.80	0.26	2.61	0.09
2025 Sep	Mean	100.37	114.98	0.01	0.00	0.31	0.04	0.06	0.03	0.01	29.73	0.10	0.53	1.92	0.34	0.55	0.12	0.004																										

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2027 Jan	Mean	102.79	117.75	0.02	0.01	0.59	0.04	0.10	0.06	0.01	30.45	0.29	0.54	5.22	0.45	1.07	0.13	0.008	0.005	0.19	0.53	10.60	0.034	0.014	0.22	0.01	12.27	0.005	0.11	0.93	0.18	6.35	1.90	6.68	1.57	0.20	83.73	0.03	0.482	0.011	1.39	0.36	5.79	0.10
2027 Feb	Mean	100.75	115.41	0.02	0.01	0.60	0.04	0.10	0.05	0.01	29.84	0.25	0.53	4.74	0.44	1.08	0.12	0.008	0.005	0.19	0.52	10.39	0.034	0.012	0.21	0.01	10.78	0.005	0.11	0.92	0.18	6.22	1.93	4.81	1.54	0.20	75.82	0.03	0.472	0.011	1.29	0.35	5.85	0.09
2027 Mar	Mean	124.95	143.25	0.02	0.01	0.61	0.05	0.10	0.05	0.01	37.03	0.23	0.66	4.45	0.51	1.12	0.16	0.008	0.006	0.24	0.65	12.91	0.034	0.011	0.27	0.02	10.05	0.006	0.12	1.11	0.18	7.77	1.89	4.24	1.91	0.24	75.27	0.04	0.585	0.012	1.36	0.40	6.22	0.12
2027 Apr	Mean	200.89	230.70	0.03	0.01	0.63	0.07	0.12	0.06	0.01	59.61	0.21	1.08	4.01	0.70	1.24	0.25	0.012	0.010	0.38	1.06	20.84	0.032	0.010	0.43	0.03	9.26	0.009	0.15	1.72	0.17	12.69	1.71	4.35	3.09	0.39	81.04	0.06	0.938	0.014	1.68	0.54	7.51	0.19
2027 May	Mean	4303.46	4953.50	0.28	0.22	6.20	1.45	1.49	0.79	0.23	1279.08	1.50	23.54	21.39	12.76	15.01	5.49	0.226	0.216	8.25	23.35	448.87	0.190	0.063	9.19	0.61	60.47	0.195	2.41	34.77	1.32	277.74	8.07	49.47	66.88	8.26	924.42	1.29	20.019	0.192	25.69	9.39	115.48	4.00
2027 Jun	Mean	2848.38	3275.71	0.18	0.14	3.99	0.95	0.97	0.50	0.16	846.05	0.90	15.48	12.72	8.37	9.27	3.61	0.136	0.140	5.44	15.31	296.50	0.112	0.039	6.08	0.40	35.93	0.129	1.56	23.55	0.82	182.35	4.93	31.64	44.12	5.48	594.26	0.85	13.270	0.120	16.74	6.16	67.93	2.65
2027 Jul	Mean	152.05	174.36	0.02	0.01	0.39	0.05	0.08	0.04	0.01	45.07	0.11	0.81	2.15	0.50	0.72	0.19	0.007	0.007	0.29	0.79	15.72	0.017	0.006	0.32	0.02	4.96	0.007	0.10	1.35	0.10	9.48	0.94	2.64	2.33	0.29	50.33	0.05	0.712	0.009	1.13	0.38	4.00	0.14
2027 Aug	Mean	98.84	113.24	0.01	0.00	0.38	0.04	0.07	0.03	0.01	29.28	0.13	0.52	2.49	0.36	0.68	0.12	0.005	0.005	0.19	0.51	10.20	0.019	0.006	0.21	0.01	5.57	0.005	0.08	0.90	0.10	6.11	1.09	2.43	1.51	0.19	46.40	0.03	0.463	0.008	0.91	0.28	3.58	0.09
2027 Sep	Mean	130.28	149.39	0.02	0.01	0.49	0.05	0.09	0.04	0.01	38.62	0.17	0.69	3.25	0.48	0.91	0.16	0.007	0.006	0.25	0.68	13.47	0.025	0.008	0.28	0.02	7.34	0.006	0.11	1.16	0.14	8.12	1.42	3.19	2.00	0.25	60.76	0.04	0.610	0.010	1.19	0.37	5.05	0.12
2027 Oct	Mean	99.69	114.21	0.02	0.01	0.41	0.04	0.07	0.03	0.01	29.53	0.14	0.53	2.73	0.38	0.73	0.12	0.006	0.005	0.19	0.51	10.29	0.021	0.007	0.21	0.01	6.11	0.005	0.09	0.90	0.11	6.16	1.20	2.59	1.52	0.19	49.59	0.03	0.467	0.008	0.95	0.29	3.88	0.09
2027 Nov	Mean	100.75	115.42	0.02	0.01	0.45	0.04	0.08	0.04	0.01	29.84	0.16	0.53	3.14	0.39	0.81	0.12	0.006	0.005	0.19	0.52	10.39	0.024	0.008	0.21	0.01	7.01	0.005	0.09	0.92	0.13	6.22	1.38	2.87	1.54	0.20	54.89	0.03	0.472	0.009	1.02	0.31	4.34	0.09
2027 Dec	Mean	102.96	117.95	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.50	0.20	0.54	4.02	0.43	1.00	0.13	0.007	0.005	0.19	0.53	10.62	0.031	0.010	0.22	0.01	8.94	0.005	0.11	0.94	0.16	6.36	1.76	3.47	1.57	0.20	66.20	0.03	0.483	0.011	1.18	0.34	5.39	0.10
2028 Jan	Mean	102.60	117.54	0.02	0.01	0.61	0.04	0.10	0.05	0.01	30.39	0.23	0.54	4.57	0.45	1.11	0.13	0.008	0.005	0.19	0.53	10.59	0.036	0.011	0.22	0.01	10.14	0.005	0.11	0.93	0.18	6.34	1.99	3.82	1.57	0.20	72.94	0.03	0.481	0.012	1.26	0.36	6.03	0.10
2028 Feb	Mean	100.71	115.36	0.02	0.01	0.62	0.04	0.10	0.05	0.01	29.83	0.23	0.53	4.64	0.45	1.12	0.12	0.008	0.005	0.19	0.52	10.39	0.036	0.011	0.21	0.01	10.29	0.005	0.11	0.92	0.19	6.22	2.02	3.85	1.54	0.20	73.52	0.03	0.472	0.012	1.27	0.36	6.10	0.09
2028 Mar	Mean	97.57	111.77	0.02	0.01	0.59	0.04	0.10	0.05	0.01	28.90	0.22	0.52	4.43	0.43	1.07	0.12	0.007	0.004	0.18	0.50	10.07	0.034	0.011	0.21	0.01	9.83	0.004	0.11	0.89	0.18	6.02	1.93	3.68	1.49	0.19	70.43	0.03	0.458	0.011	1.22	0.35	5.83	0.09
2028 Apr	Mean	151.14	173.45	0.02	0.01	0.59	0.06	0.10	0.05	0.01	44.82	0.21	0.81	4.00	0.57	1.13	0.19	0.010	0.007	0.29	0.79	15.66	0.032	0.010	0.32	0.02	9.11	0.007	0.13	1.32	0.17	9.49	1.72	3.84	2.32	0.29	72.84	0.04	0.707	0.013	1.42	0.44	6.88	0.14
2028 May	Mean	3852.74	4439.47	0.26	0.27	5.86	1.33	1.39	0.85	0.21	1146.01	1.74	21.23	24.78	11.62	16.10	4.94	0.273	0.197	7.42	21.14	402.85	0.230	0.064	8.23	0.56	72.29	0.175	2.22	30.26	1.37	251.08	8.39	47.72	60.11	7.37	870.45	1.16	17.889	0.209	23.72	8.57	149.60	3.58
2028 Jun	Mean	1818.24	2093.24	0.12	0.12	2.68	0.62	0.64	0.37	0.10	540.49	0.74	9.96	10.47	5.43	7.04	2.32	0.117	0.091	3.49	9.88	189.73	0.096	0.028	3.88	0.26	30.50	0.083	1.02	14.63	0.60	117.53	3.63	21.66	28.27	3.49	397.66	0.55	8.455	0.092	10.99	4.00	62.64	1.69
2028 Jul	Mean	99.78	114.33	0.01	0.00	0.33	0.04	0.06	0.03	0.01	29.56	0.11	0.53	2.09	0.35	0.60	0.12	0.005	0.005	0.19	0.52	10.30	0.016	0.005	0.21	0.01	4.72	0.005	0.08	0.90	0.09	6.18	0.92	2.17	1.52	0.19	41.57	0.03	0.468	0.007	0.85	0.27	3.21	0.09
2028 Aug	Mean	105.24	120.59	0.02	0.01	0.42	0.04	0.07	0.04	0.01	31.18	0.14	0.56	2.85	0.40	0.77	0.13	0.006	0.005	0.20	0.54	10.86	0.022	0.007	0.22	0.01	6.40	0.005	0.09	0.95	0.12	6.51	1.25	2.71	1.61	0.20	51.90	0.03	0.493	0.008	1.00	0.31	4.16	0.10
2028 Sep	Mean	129.12	148.09	0.02	0.01	0.49	0.05	0.09	0.04	0.01	38.28	0.17	0.69	3.22	0.48	0.91	0.16	0.008	0.006	0.24	0.67	13.36	0.025	0.008	0.28	0.02	7.32	0.006	0.11	1.14	0.14	8.06	1.40	3.15	1.98	0.25	60.02	0.04	0.604	0.010	1.18	0.37	5.30	0.12
2028 Oct	Mean	140.64	161.57	0.02	0.01	0.53	0.05	0.09	0.05	0.01	41.74	0.19	0.76	3.57	0.52	1.05	0.18	0.010	0.007	0.27	0.75	14.60	0.028	0.009	0.30	0.02	8.23	0.006	0.12	1.20	0.15	8.91	1.52	3.48	2.17	0.27	65.83	0.04	0.656	0.012	1.30	0.41	6.72	0.13
2028 Nov	Mean	100.40	115.02	0.02	0.01	0.47	0.04	0.08	0.04	0.01	29.74	0.17	0.53	3.32	0.40	0.85	0.12	0.006	0.005	0.19	0.52	10.36	0.026	0.008	0.21	0.01	7.40	0.005	0.09	0.91	0.14	6.20	1.45	2.98	1.53	0.19	57.02	0.03	0.471	0.009	1.05	0.32	4.56	0.09
2028 Dec	Mean	103.05	118.05	0.02	0.01	0.57	0.04	0.09	0.05	0.01	30.52	0.21	0.55	4.19	0.44	1.03	0.13	0.007	0.005	0.19	0.53	10.63	0.033	0.010	0.22	0.01	9.31	0.005	0.11	0.94	0.17	6.36	1.83	3.57	1.57	0.20	68.29	0.03	0.483	0.011	1.21	0.35	5.59	0.10
2029 Jan	Mean	102.31	117.20	0.02	0.01	0.64	0.05	0.10	0.05	0.01	30.30	0.24	0.54	4.83	0.46	1.16	0.13	0.008	0.005	0.19	0.53	10.55	0.037	0.012	0.22	0.01	10.74	0.005	0.12	0.93	0.19	6.32	2.10	4.06	1.56	0.20	76.28	0.03	0.480	0.012	1.31	0.37	6.31	0.10
2029 Feb	Mean	99.93	114.48	0.03	0.01	0.66	0.05	0.11	0.05	0.01	29.60	0.25	0.53	5.03	0.46	1.19	0.12	0.008	0.005	0.19	0.52	10.31	0.039	0.012	0.21	0.01	11.21	0.005	0.12	0.91	0.20	6.17	2.17	4.26	1.53	0.19	78.54	0.03	0.469	0.012	1.33	0.37	6.50	0.09
2029 Mar	Mean	96.58	110.64	0.02	0.01	0.64	0.04	0.10	0.05	0.01	28.61	0.24																																

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	156.37	179.41	0.02	0.01	0.48	0.06	0.09	0.05	0.01	46.37	0.16	0.84	2.99	0.54	0.93	0.20	0.009	0.007	0.30	0.82	16.19	0.024	0.008	0.33	0.02	6.92	0.007	0.12	1.37	0.13	9.80	1.28	3.23	2.40	0.30	61.05	0.05	0.731	0.011	1.28	0.42	5.75	0.15
2030 Aug	Mean	97.37	111.56	0.02	0.01	0.43	0.04	0.07	0.04	0.01	28.84	0.15	0.52	2.97	0.38	0.78	0.12	0.006	0.004	0.18	0.50	10.05	0.023	0.007	0.21	0.01	6.65	0.004	0.09	0.88	0.12	6.02	1.30	2.75	1.49	0.19	52.21	0.03	0.456	0.008	0.98	0.30	4.18	0.09
2030 Sep	Mean	126.01	144.52	0.02	0.01	0.53	0.05	0.09	0.05	0.01	37.36	0.19	0.67	3.65	0.48	0.99	0.16	0.008	0.006	0.24	0.66	13.04	0.029	0.009	0.27	0.02	8.26	0.006	0.11	1.11	0.15	7.87	1.57	3.43	1.93	0.24	64.85	0.04	0.590	0.011	1.24	0.38	5.78	0.12
2030 Oct	Mean	96.64	110.72	0.02	0.01	0.44	0.04	0.08	0.04	0.01	28.63	0.16	0.51	3.11	0.38	0.80	0.12	0.006	0.004	0.18	0.50	9.97	0.024	0.008	0.21	0.01	6.94	0.004	0.09	0.88	0.13	5.97	1.36	2.84	1.48	0.19	53.80	0.03	0.453	0.009	1.00	0.30	4.29	0.09
2030 Nov	Mean	99.89	114.44	0.02	0.01	0.50	0.04	0.08	0.04	0.01	29.59	0.18	0.53	3.54	0.41	0.89	0.12	0.006	0.005	0.19	0.52	10.31	0.027	0.009	0.21	0.01	7.89	0.005	0.10	0.91	0.14	6.17	1.54	3.15	1.52	0.19	59.73	0.03	0.468	0.010	1.08	0.32	4.81	0.09
2030 Dec	Mean	102.42	117.32	0.02	0.01	0.60	0.04	0.10	0.05	0.01	30.34	0.22	0.54	4.47	0.45	1.09	0.13	0.008	0.005	0.19	0.53	10.57	0.035	0.011	0.22	0.01	9.95	0.005	0.11	0.93	0.18	6.32	1.95	3.79	1.56	0.20	71.80	0.03	0.480	0.012	1.25	0.36	5.91	0.10
2031 Jan	Mean	101.61	116.40	0.03	0.01	0.68	0.05	0.11	0.06	0.01	30.10	0.25	0.54	5.11	0.47	1.22	0.13	0.008	0.005	0.19	0.52	10.48	0.040	0.012	0.22	0.01	11.34	0.005	0.12	0.92	0.20	6.27	2.23	4.17	1.55	0.20	79.61	0.03	0.477	0.013	1.35	0.38	6.67	0.10
2031 Feb	Mean	99.09	113.52	0.03	0.01	0.69	0.05	0.11	0.06	0.01	29.35	0.26	0.52	5.29	0.47	1.25	0.12	0.009	0.005	0.19	0.51	10.22	0.041	0.013	0.21	0.01	11.71	0.005	0.12	0.90	0.21	6.12	2.31	4.22	1.51	0.19	81.38	0.03	0.465	0.013	1.36	0.38	6.88	0.09
2031 Mar	Mean	95.76	109.69	0.03	0.01	0.67	0.04	0.11	0.05	0.01	28.36	0.25	0.51	5.08	0.45	1.21	0.12	0.008	0.004	0.18	0.49	9.88	0.040	0.012	0.20	0.01	11.25	0.004	0.12	0.87	0.20	5.91	2.22	4.04	1.46	0.19	78.25	0.03	0.449	0.013	1.31	0.37	6.62	0.09
2031 Apr	Mean	213.67	245.64	0.03	0.02	0.72	0.08	0.13	0.07	0.01	63.45	0.26	1.16	4.79	0.77	1.53	0.27	0.017	0.010	0.41	1.14	22.22	0.039	0.011	0.46	0.03	11.35	0.010	0.17	1.78	0.20	13.64	1.97	4.74	3.31	0.41	90.62	0.06	0.996	0.018	1.86	0.59	11.34	0.20
2031 May	Mean	3879.30	4467.54	0.27	0.29	6.05	1.33	1.41	0.93	0.21	1153.44	1.97	21.29	27.96	11.74	17.32	4.96	0.304	0.196	7.45	21.16	405.10	0.264	0.066	8.29	0.55	82.36	0.176	2.24	30.93	1.45	251.52	8.99	47.64	60.40	7.43	890.59	1.16	18.030	0.228	24.06	8.64	174.12	3.61
2031 Jun	Mean	2193.18	2523.98	0.15	0.15	3.32	0.74	0.78	0.50	0.12	651.77	1.02	11.98	14.36	6.58	9.15	2.79	0.158	0.109	4.20	11.88	228.66	0.135	0.035	4.68	0.31	42.27	0.100	1.24	17.81	0.77	141.30	4.70	26.07	34.06	4.21	488.95	0.66	10.205	0.121	13.38	4.84	89.01	2.04
2031 Jul	Mean	121.78	139.60	0.02	0.01	0.41	0.05	0.08	0.04	0.01	36.09	0.14	0.65	2.64	0.43	0.77	0.15	0.007	0.006	0.23	0.63	12.58	0.021	0.007	0.26	0.02	5.98	0.006	0.09	1.09	0.11	7.57	1.15	2.66	1.86	0.24	51.55	0.04	0.570	0.009	1.05	0.33	4.36	0.11
2031 Aug	Mean	96.99	111.12	0.02	0.01	0.44	0.04	0.08	0.04	0.01	28.73	0.15	0.51	3.07	0.38	0.80	0.12	0.006	0.004	0.18	0.50	10.01	0.024	0.008	0.21	0.01	6.85	0.004	0.09	0.88	0.13	6.00	1.35	2.75	1.48	0.19	53.31	0.03	0.455	0.009	0.99	0.30	4.32	0.09
2031 Sep	Mean	97.12	111.28	0.02	0.01	0.48	0.04	0.08	0.04	0.01	28.77	0.17	0.51	3.39	0.39	0.86	0.12	0.006	0.004	0.18	0.50	10.02	0.026	0.008	0.21	0.01	7.53	0.004	0.09	0.88	0.14	6.01	1.49	2.95	1.48	0.19	57.26	0.03	0.455	0.009	1.04	0.31	4.69	0.09
2031 Oct	Mean	95.40	109.29	0.02	0.01	0.49	0.04	0.08	0.04	0.01	28.26	0.17	0.50	3.46	0.39	0.88	0.12	0.006	0.004	0.18	0.49	9.84	0.027	0.008	0.20	0.01	7.70	0.004	0.09	0.87	0.14	5.90	1.52	2.99	1.46	0.19	57.99	0.03	0.447	0.009	1.05	0.31	4.74	0.09
2031 Nov	Mean	98.36	112.69	0.02	0.01	0.54	0.04	0.09	0.05	0.01	29.14	0.20	0.52	3.96	0.42	0.98	0.12	0.007	0.004	0.19	0.51	10.15	0.031	0.010	0.21	0.01	8.79	0.004	0.10	0.89	0.16	6.08	1.74	3.33	1.50	0.19	64.63	0.03	0.461	0.010	1.14	0.33	5.33	0.09
2031 Dec	Mean	100.48	115.11	0.03	0.01	0.67	0.05	0.11	0.06	0.01	29.76	0.25	0.53	5.05	0.47	1.21	0.12	0.008	0.005	0.19	0.52	10.37	0.039	0.012	0.21	0.01	11.18	0.005	0.12	0.91	0.20	6.21	2.21	4.05	1.53	0.20	78.60	0.03	0.471	0.013	1.33	0.38	6.62	0.09
2032 Jan	Mean	99.70	114.21	0.03	0.01	0.74	0.05	0.12	0.06	0.01	29.53	0.28	0.53	5.73	0.49	1.34	0.12	0.009	0.005	0.19	0.51	10.29	0.045	0.014	0.21	0.01	12.68	0.005	0.13	0.91	0.23	6.16	2.50	4.55	1.52	0.19	86.99	0.03	0.468	0.014	1.44	0.40	7.39	0.09
2032 Feb	Mean	97.48	111.67	0.03	0.01	0.75	0.05	0.12	0.06	0.01	28.87	0.29	0.52	5.82	0.49	1.35	0.12	0.009	0.004	0.18	0.50	10.06	0.045	0.014	0.21	0.01	12.91	0.004	0.13	0.89	0.23	6.02	2.53	4.66	1.49	0.19	87.92	0.03	0.457	0.014	1.44	0.40	7.46	0.09
2032 Mar	Mean	94.48	108.23	0.03	0.01	0.72	0.05	0.11	0.06	0.01	27.98	0.28	0.50	5.57	0.47	1.29	0.12	0.009	0.004	0.18	0.49	9.75	0.043	0.013	0.20	0.01	12.35	0.004	0.12	0.86	0.22	5.83	2.41	4.49	1.44	0.18	84.26	0.03	0.443	0.013	1.39	0.38	7.12	0.09
2032 Apr	Mean	116.10	133.12	0.02	0.01	0.60	0.05	0.10	0.05	0.01	34.41	0.22	0.62	4.39	0.48	1.12	0.14	0.009	0.005	0.22	0.60	12.00	0.034	0.011	0.25	0.02	9.87	0.005	0.12	1.03	0.18	7.23	1.89	3.88	1.78	0.22	72.68	0.03	0.544	0.012	1.30	0.38	6.44	0.11
2032 May	Mean	2829.17	3257.85	0.21	0.21	4.70	0.98	1.07	0.69	0.15	841.14	1.54	15.52	22.67	8.65	12.89	3.61	0.217	0.143	5.43	15.42	295.37	0.207	0.055	6.04	0.40	64.43	0.128	1.67	22.62	1.14	183.27	7.66	36.90	44.03	5.42	682.95	0.85	13.151	0.167	17.96	6.39	124.26	2.63
2032 Jun	Mean	1654.71	1904.37	0.12	0.11	2.63	0.56	0.61	0.38	0.09	491.76	0.82	9.04	11.88	5.00	7.06	2.11	0.118	0.083	3.17	8.96	172.54	0.109	0.029	3.53	0.23	34.02	0.075	0.95	13.42	0.62	106.65	4.03	20.69	25.70	3.18	384.09	0.50	7.699	0.092	10.29	3.69	66.63	1.54
2032 Jul	Mean	151.89	174.42	0.02	0.01	0.51	0.06	0.09	0.05	0.01	45.07	0.18	0.82	3.36	0.54	1.03	0.19	0.011	0.007	0.29	0.80	15.76	0.027	0.008	0.32	0.02	7.83	0.007	0.12	1.30	0.14	9.59	1.40	3.45	2.34	0.29	64.55	0.05	0.709	0.012	1.32	0.42	6.87	0.14
2032 Aug	Mean	110.01	126.08	0.02	0.01	0.49	0.04	0.08	0.04	0.01	32.59	0.17	0.58	3.41	0.43	0.89	0.14	0.007	0.005	0.21	0.57	11.36	0.026	0.008	0.23	0.01	7.65	0.005	0.10	0.99	0.14	6.82	1.48	3.17	1.68	0.21	59.57	0.03	0.516	0.010	1.11	0.34	4.91	0.10
2032 Sep	Mean	99.42	113.91	0.02	0.01	0.49	0.04	0.08	0.04	0.01	29.45	0.18	0.53	3.55																														

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2034 Jan	Mean	101.57	116.36	0.03	0.01	0.68	0.05	0.11	0.06	0.01	30.09	0.28	0.54	5.39	0.47	1.22	0.13	0.008	0.005	0.19	0.52	10.48	0.040	0.013	0.22	0.01	12.17	0.005	0.12	0.92	0.20	6.27	2.24	5.09	1.55	0.20	83.91	0.03	0.476	0.013	1.40	0.38	6.70	0.10
2034 Feb	Mean	99.56	114.05	0.03	0.01	0.68	0.05	0.11	0.06	0.01	29.49	0.28	0.53	5.41	0.47	1.23	0.12	0.008	0.005	0.19	0.51	10.27	0.040	0.013	0.21	0.01	12.17	0.005	0.12	0.90	0.21	6.15	2.26	4.98	1.52	0.19	83.69	0.03	0.467	0.013	1.39	0.38	6.74	0.09
2034 Mar	Mean	96.57	110.63	0.02	0.01	0.65	0.04	0.10	0.05	0.01	28.60	0.26	0.51	5.08	0.45	1.16	0.12	0.008	0.004	0.18	0.50	9.96	0.038	0.013	0.21	0.01	11.43	0.004	0.11	0.88	0.19	5.96	2.13	4.66	1.47	0.19	79.06	0.03	0.453	0.012	1.32	0.36	6.38	0.09
2034 Apr	Mean	228.60	262.82	0.03	0.02	0.72	0.09	0.13	0.08	0.01	67.89	0.27	1.24	4.85	0.81	1.53	0.29	0.018	0.011	0.44	1.23	23.78	0.038	0.012	0.49	0.03	11.63	0.010	0.18	1.90	0.20	14.60	1.93	5.49	3.54	0.44	94.59	0.07	1.065	0.018	1.95	0.62	11.15	0.21
2034 May	Mean	2815.21	3244.74	0.19	0.23	4.37	0.98	1.03	0.68	0.15	837.54	1.47	15.54	20.57	8.55	12.76	3.62	0.231	0.145	5.42	15.49	294.53	0.190	0.051	6.01	0.41	61.05	0.128	1.64	21.96	1.06	183.87	6.48	37.63	43.97	5.38	655.78	0.85	13.066	0.168	17.64	6.33	128.07	2.61
2034 Jun	Mean	2119.76	2440.26	0.14	0.15	3.13	0.72	0.75	0.47	0.12	630.10	0.95	11.60	13.16	6.34	8.59	2.70	0.151	0.106	4.07	11.52	221.17	0.121	0.034	4.53	0.30	39.08	0.096	1.19	17.07	0.72	136.97	4.27	26.61	32.96	4.07	469.61	0.64	9.858	0.114	12.91	4.69	81.69	1.97
2034 Jul	Mean	132.82	152.43	0.02	0.01	0.40	0.05	0.07	0.04	0.01	39.39	0.14	0.71	2.52	0.46	0.77	0.17	0.008	0.006	0.25	0.70	13.76	0.019	0.006	0.28	0.02	5.91	0.006	0.10	1.16	0.11	8.34	1.04	2.97	2.04	0.26	51.78	0.04	0.621	0.009	1.09	0.35	4.86	0.12
2034 Aug	Mean	98.10	112.40	0.02	0.01	0.40	0.04	0.07	0.04	0.01	29.06	0.15	0.52	2.80	0.37	0.72	0.12	0.006	0.004	0.18	0.51	10.13	0.021	0.007	0.21	0.01	6.34	0.004	0.08	0.89	0.11	6.07	1.18	2.91	1.50	0.19	50.40	0.03	0.460	0.008	0.96	0.29	3.88	0.09
2034 Sep	Mean	110.18	126.27	0.02	0.01	0.46	0.04	0.08	0.04	0.01	32.64	0.17	0.58	3.30	0.42	0.85	0.14	0.007	0.005	0.21	0.57	11.38	0.025	0.008	0.23	0.01	7.49	0.005	0.10	0.99	0.13	6.83	1.39	3.38	1.68	0.21	58.54	0.03	0.516	0.009	1.10	0.33	4.66	0.10
2034 Oct	Mean	98.59	112.96	0.02	0.01	0.43	0.04	0.07	0.04	0.01	29.21	0.16	0.52	3.10	0.38	0.78	0.12	0.006	0.005	0.19	0.51	10.18	0.023	0.008	0.21	0.01	7.01	0.004	0.09	0.89	0.12	6.10	1.31	3.14	1.51	0.19	54.29	0.03	0.462	0.009	1.01	0.30	4.23	0.09
2034 Nov	Mean	100.14	114.73	0.02	0.01	0.48	0.04	0.08	0.04	0.01	29.66	0.18	0.53	3.55	0.40	0.87	0.12	0.006	0.005	0.19	0.52	10.33	0.027	0.009	0.21	0.01	8.01	0.005	0.10	0.91	0.14	6.19	1.50	3.50	1.53	0.19	60.26	0.03	0.470	0.009	1.09	0.32	4.69	0.09
2034 Dec	Mean	102.82	117.79	0.02	0.01	0.59	0.04	0.10	0.05	0.01	30.46	0.23	0.54	4.55	0.45	1.07	0.13	0.008	0.005	0.19	0.53	10.61	0.034	0.011	0.22	0.01	10.23	0.005	0.11	0.93	0.18	6.35	1.91	4.27	1.57	0.20	73.22	0.03	0.482	0.011	1.27	0.36	5.82	0.10
2035 Jan	Mean	98.80	113.18	0.03	0.01	0.78	0.05	0.12	0.07	0.01	29.26	0.32	0.52	6.32	0.50	1.41	0.12	0.009	0.004	0.19	0.51	10.19	0.047	0.015	0.21	0.01	14.19	0.005	0.13	0.90	0.24	6.10	2.64	5.64	1.51	0.19	95.02	0.03	0.463	0.015	1.54	0.41	7.79	0.09
2035 Feb	Mean	92.90	106.42	0.03	0.01	0.92	0.05	0.14	0.08	0.01	27.52	0.39	0.49	7.66	0.53	1.66	0.12	0.011	0.004	0.17	0.48	9.58	0.057	0.019	0.20	0.01	17.16	0.004	0.15	0.84	0.29	5.74	3.19	6.65	1.42	0.18	110.95	0.03	0.436	0.017	1.72	0.44	9.25	0.09
2035 Mar	Mean	88.72	101.64	0.03	0.01	0.92	0.05	0.14	0.08	0.00	26.28	0.39	0.47	7.74	0.52	1.67	0.11	0.011	0.004	0.17	0.46	9.15	0.058	0.019	0.19	0.01	17.36	0.004	0.15	0.81	0.29	5.48	3.23	6.70	1.35	0.17	111.42	0.03	0.416	0.017	1.72	0.43	9.32	0.08
2035 Apr	Mean	470.64	540.62	0.07	0.04	1.64	0.18	0.30	0.17	0.03	139.68	0.63	2.54	11.46	1.71	3.41	0.59	0.038	0.023	0.90	2.50	48.86	0.089	0.028	1.00	0.06	27.27	0.021	0.38	4.01	0.46	29.81	4.57	12.49	7.26	0.91	212.62	0.14	2.197	0.039	4.25	1.32	24.48	0.44
2035 May	Mean	4524.59	5200.61	0.35	0.31	8.07	1.56	1.79	1.08	0.25	1343.42	2.63	24.50	40.62	13.91	19.96	5.72	0.315	0.220	8.63	24.18	470.40	0.347	0.104	9.66	0.63	110.02	0.206	2.66	37.92	1.96	288.25	14.51	65.90	69.94	8.71	1153.95	1.35	21.098	0.261	29.43	10.36	177.45	4.22
2035 Jun	Mean	2382.31	2737.00	0.18	0.15	4.08	0.81	0.92	0.53	0.13	707.11	1.25	12.86	19.22	7.25	9.75	3.00	0.150	0.115	4.53	12.67	247.42	0.163	0.051	5.08	0.33	51.96	0.108	1.37	20.20	0.96	151.13	6.99	33.16	36.76	4.59	585.21	0.71	11.117	0.128	15.17	5.39	82.90	2.22
2035 Jul	Mean	147.73	169.50	0.02	0.01	0.58	0.06	0.10	0.06	0.01	43.81	0.22	0.79	4.11	0.55	1.12	0.18	0.010	0.007	0.28	0.77	15.30	0.031	0.010	0.32	0.02	9.54	0.007	0.13	1.29	0.16	9.26	1.69	4.34	2.27	0.29	73.94	0.04	0.691	0.013	1.42	0.43	7.09	0.14
2035 Aug	Mean	144.79	166.12	0.03	0.01	0.77	0.06	0.13	0.07	0.01	42.93	0.31	0.77	5.94	0.61	1.48	0.18	0.013	0.007	0.27	0.76	14.99	0.045	0.015	0.31	0.02	13.62	0.007	0.15	1.27	0.23	9.07	2.44	5.73	2.22	0.28	96.52	0.04	0.677	0.016	1.70	0.49	9.17	0.14
2035 Sep	Mean	91.30	104.61	0.02	0.01	0.63	0.04	0.10	0.05	0.01	27.05	0.26	0.48	5.04	0.43	1.15	0.11	0.008	0.004	0.17	0.47	9.42	0.038	0.012	0.19	0.01	11.35	0.004	0.11	0.83	0.19	5.64	2.10	4.63	1.39	0.18	77.76	0.03	0.428	0.012	1.29	0.35	6.31	0.09
2035 Oct	Mean	119.42	136.87	0.03	0.01	0.74	0.05	0.12	0.06	0.01	35.38	0.30	0.63	5.83	0.54	1.36	0.15	0.010	0.005	0.23	0.62	12.33	0.044	0.014	0.25	0.02	13.17	0.005	0.14	1.07	0.22	7.40	2.43	5.46	1.83	0.23	91.93	0.04	0.560	0.014	1.56	0.43	7.63	0.11
2035 Nov	Mean	93.74	107.39	0.03	0.01	0.73	0.05	0.11	0.06	0.01	27.77	0.30	0.50	5.91	0.47	1.32	0.12	0.009	0.004	0.18	0.48	9.67	0.044	0.015	0.20	0.01	13.29	0.004	0.12	0.85	0.22	5.79	2.47	5.33	1.43	0.18	89.13	0.03	0.440	0.014	1.44	0.38	7.29	0.09
2035 Dec	Mean	94.10	107.80	0.03	0.01	0.90	0.05	0.14	0.08	0.01	27.87	0.38	0.50	7.49	0.53	1.63	0.12	0.011	0.004	0.18	0.49	9.71	0.056	0.018	0.20	0.01	16.81	0.004	0.15	0.85	0.28	5.81	3.12	6.55	1.44	0.18	109.11	0.03	0.441	0.017	1.70	0.44	9.07	0.09
2036 Jan	Mean	92.39	105.84	0.04	0.01	1.00	0.05	0.15	0.08	0.01	27.37	0.43	0.49	8.46	0.56	1.82	0.11	0.012	0.004	0.17	0.48	9.53	0.063	0.021	0.20	0.01	18.95	0.004	0.16	0.84	0.31	5.70	3.52	7.28	1.41	0.18	120.99	0.03	0.433	0.018	1.85	0.47	10.15	0.09
2036 Feb	Mean	90.20	103.33	0.04	0.01	1.01	0.05	0.15	0.08	0.01	26.72	0.43	0.48	8.56	0.55	1.83	0.11	0.012	0.004	0.17	0.46	9.31	0.064	0.021	0.19	0.01	19.18	0.004	0.16	0.82	0.32	5.57	3.56	7.35	1.38	0.18	121.97	0.03	0.423	0.019	1.86	0.46	10.25	0.08
2036 Mar	Mean	87.34	100.05	0.04	0.01	0.97	0.05	0.15	0.08	0.00	25.87																																	

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr	
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium	
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2037 Jul	Mean	346.54	396.97	0.04	0.02	1.05	0.13	0.20	0.11	0.02	102.64	0.38	1.83	6.91	1.19	2.10	0.43	0.024	0.016	0.65	1.79	35.75	0.054	0.017	0.74	0.05	16.50	0.016	0.25	3.15	0.29	21.40	2.76	7.94	5.29	0.67	136.13	0.10	1.625	0.025	2.85	0.91	15.00	0.33	
2037 Aug	Mean	95.57	109.48	0.02	0.01	0.56	0.04	0.09	0.05	0.01	28.31	0.22	0.51	4.35	0.42	1.02	0.12	0.007	0.004	0.18	0.49	9.86	0.033	0.011	0.20	0.01	9.82	0.004	0.10	0.87	0.17	5.90	1.82	4.13	1.46	0.19	69.66	0.03	0.448	0.011	1.20	0.34	5.60	0.09	
2037 Sep	Mean	102.68	117.63	0.02	0.01	0.63	0.05	0.10	0.05	0.01	30.41	0.25	0.54	4.91	0.46	1.14	0.13	0.008	0.005	0.19	0.53	10.59	0.037	0.012	0.22	0.01	11.08	0.005	0.11	0.93	0.19	6.34	2.05	4.62	1.57	0.20	77.77	0.03	0.482	0.012	1.33	0.37	6.34	0.10	
2037 Oct	Mean	102.67	117.61	0.02	0.01	0.64	0.05	0.10	0.06	0.01	30.41	0.26	0.54	5.01	0.46	1.16	0.13	0.008	0.005	0.19	0.53	10.59	0.037	0.012	0.22	0.01	11.30	0.005	0.12	0.93	0.19	6.34	2.09	4.69	1.57	0.20	78.96	0.03	0.481	0.012	1.34	0.37	6.45	0.10	
2037 Nov	Mean	94.84	108.64	0.03	0.01	0.68	0.04	0.11	0.06	0.01	28.09	0.28	0.50	5.44	0.46	1.23	0.12	0.008	0.004	0.18	0.49	9.78	0.041	0.013	0.20	0.01	12.23	0.004	0.12	0.86	0.21	5.86	2.27	4.97	1.45	0.18	83.28	0.03	0.445	0.013	1.37	0.37	6.76	0.09	
2037 Dec	Mean	96.00	109.97	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.43	0.35	0.51	6.88	0.51	1.51	0.12	0.010	0.004	0.18	0.49	9.90	0.051	0.017	0.20	0.01	15.45	0.004	0.14	0.87	0.26	5.93	2.87	6.09	1.47	0.19	101.69	0.03	0.450	0.016	1.61	0.42	8.39	0.09	
2038 Jan	Mean	94.49	108.25	0.03	0.01	0.94	0.05	0.14	0.08	0.01	27.99	0.40	0.50	7.81	0.54	1.69	0.12	0.011	0.004	0.18	0.49	9.75	0.058	0.019	0.20	0.01	17.52	0.004	0.15	0.86	0.29	5.83	3.25	6.80	1.44	0.18	113.18	0.03	0.443	0.017	1.76	0.45	9.43	0.09	
2038 Feb	Mean	92.08	105.48	0.04	0.01	0.95	0.05	0.14	0.08	0.01	27.27	0.40	0.49	7.98	0.54	1.72	0.11	0.011	0.004	0.17	0.47	9.50	0.060	0.019	0.20	0.01	17.89	0.004	0.15	0.84	0.30	5.69	3.32	6.91	1.41	0.18	114.96	0.03	0.432	0.018	1.77	0.45	9.61	0.09	
2038 Mar	Mean	89.14	102.12	0.03	0.01	0.91	0.05	0.14	0.08	0.00	26.40	0.39	0.47	7.67	0.52	1.66	0.11	0.011	0.004	0.17	0.46	9.20	0.057	0.019	0.19	0.01	17.20	0.004	0.15	0.81	0.29	5.50	3.19	6.65	1.36	0.17	110.59	0.03	0.418	0.017	1.71	0.43	9.24	0.08	
2038 Apr	Mean	231.90	265.65	0.04	0.02	1.02	0.09	0.17	0.10	0.01	68.69	0.41	1.23	7.63	0.90	2.02	0.29	0.020	0.011	0.44	1.20	23.92	0.059	0.019	0.49	0.03	17.83	0.011	0.21	2.11	0.30	14.32	3.08	7.62	3.54	0.45	128.48	0.07	1.088	0.023	2.39	0.71	14.02	0.22	
2038 May	Mean	4535.31	5195.39	0.35	0.29	7.92	1.51	1.76	1.07	0.25	1343.32	2.52	23.99	39.01	13.71	18.39	5.62	0.295	0.206	8.54	23.38	467.89	0.332	0.100	9.67	0.59	105.54	0.207	2.51	41.22	1.86	280.03	13.98	63.11	69.21	8.80	1106.97	1.34	21.269	0.254	28.73	10.22	166.85	4.25	
2038 Jun	Mean	2164.65	2479.70	0.16	0.12	3.57	0.71	0.81	0.47	0.12	641.15	1.05	11.45	16.07	6.46	8.04	2.68	0.126	0.098	4.07	11.16	223.32	0.136	0.043	4.62	0.28	43.62	0.099	1.17	19.67	0.80	133.65	5.85	28.41	33.04	4.20	503.10	0.64	10.151	0.112	13.37	4.81	69.39	2.03	
2038 Jul	Mean	228.05	261.24	0.03	0.02	0.80	0.09	0.14	0.08	0.01	67.55	0.30	1.21	5.55	0.82	1.59	0.28	0.017	0.010	0.43	1.18	23.53	0.043	0.014	0.49	0.03	13.12	0.010	0.18	2.07	0.22	14.08	2.23	6.00	3.48	0.44	102.22	0.07	1.069	0.019	2.04	0.64	11.13	0.21	
2038 Aug	Mean	94.12	107.82	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.88	0.21	0.50	4.19	0.41	0.98	0.12	0.007	0.004	0.18	0.49	9.71	0.031	0.010	0.20	0.01	9.44	0.004	0.10	0.86	0.16	5.81	1.75	3.99	1.44	0.18	67.34	0.03	0.441	0.010	1.16	0.33	5.38	0.09	
2038 Sep	Mean	94.16	107.87	0.02	0.01	0.59	0.04	0.10	0.05	0.01	27.89	0.24	0.50	4.64	0.43	1.07	0.12	0.008	0.004	0.18	0.49	9.71	0.035	0.011	0.20	0.01	10.45	0.004	0.11	0.86	0.18	5.81	1.94	4.34	1.44	0.18	73.10	0.03	0.442	0.011	1.24	0.34	5.89	0.09	
2038 Oct	Mean	96.44	110.47	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.56	0.25	0.51	4.79	0.44	1.10	0.12	0.008	0.004	0.18	0.50	9.95	0.036	0.012	0.21	0.01	10.79	0.004	0.11	0.88	0.18	5.95	2.00	4.48	1.47	0.19	75.32	0.03	0.452	0.012	1.27	0.35	6.08	0.09	
2038 Nov	Mean	95.04	108.87	0.03	0.01	0.67	0.04	0.11	0.06	0.01	28.15	0.27	0.50	5.38	0.45	1.22	0.12	0.008	0.004	0.18	0.49	9.80	0.040	0.013	0.20	0.01	12.09	0.004	0.12	0.86	0.20	5.87	2.24	4.92	1.45	0.18	82.56	0.03	0.446	0.013	1.36	0.37	6.69	0.09	
2038 Dec	Mean	96.31	110.33	0.03	0.01	0.83	0.05	0.13	0.07	0.01	28.53	0.34	0.51	6.77	0.51	1.49	0.12	0.010	0.004	0.18	0.50	9.94	0.051	0.017	0.21	0.01	15.20	0.004	0.14	0.88	0.25	5.95	2.82	6.01	1.47	0.19	100.36	0.03	0.452	0.015	1.60	0.42	8.27	0.09	
2039 Jan	Mean	94.86	108.67	0.03	0.01	0.92	0.05	0.14	0.08	0.01	28.10	0.39	0.50	7.71	0.54	1.67	0.12	0.011	0.004	0.18	0.49	9.79	0.057	0.019	0.20	0.01	17.29	0.004	0.15	0.86	0.29	5.86	3.21	6.72	1.45	0.18	111.95	0.03	0.445	0.017	1.74	0.45	9.31	0.09	
2039 Feb	Mean	92.44	105.89	0.04	0.01	0.94	0.05	0.14	0.08	0.01	27.38	0.40	0.49	7.90	0.54	1.71	0.11	0.011	0.004	0.17	0.48	9.54	0.059	0.019	0.20	0.01	17.72	0.004	0.15	0.84	0.29	5.71	3.29	6.85	1.41	0.18	114.00	0.03	0.434	0.017	1.76	0.45	9.52	0.09	
2039 Mar	Mean	89.37	102.38	0.03	0.01	0.91	0.05	0.14	0.08	0.00	26.47	0.38	0.47	7.59	0.52	1.64	0.11	0.011	0.004	0.17	0.46	9.22	0.057	0.018	0.19	0.01	17.02	0.004	0.15	0.81	0.28	5.52	3.16	6.59	1.36	0.17	109.63	0.03	0.419	0.017	1.69	0.43	9.15	0.08	
2039 Apr	Mean	281.20	322.13	0.05	0.02	1.17	0.11	0.20	0.12	0.02	83.29	0.46	1.49	8.56	1.07	2.30	0.35	0.023	0.013	0.53	1.45	29.01	0.066	0.021	0.60	0.04	20.02	0.013	0.24	2.56	0.34	17.36	3.46	8.72	4.29	0.55	147.56	0.08	1.319	0.026	2.80	0.84	15.78	0.26	
2039 May	Mean	4754.71	5446.72	0.37	0.30	8.45	1.59	1.87	1.13	0.26	1408.31	2.72	25.15	42.28	14.42	19.57	5.89	0.312	0.216	8.95	24.51	490.53	0.359	0.108	10.14	0.62	113.82	0.217	2.65	43.21	2.00	293.57	15.21	67.21	72.56	9.23	1177.43	1.41	22.298	0.270	30.34	10.76	177.08	4.46	
2039 Jun	Mean	2285.65	2618.31	0.17	0.13	3.73	0.75	0.85	0.50	0.13	676.99	1.11	12.09	16.81	6.82	8.55	2.83	0.137	0.104	4.30	11.78	235.80	0.144	0.044	4.87	0.30	46.10	0.104	1.23	20.77	0.84	141.12	6.02	29.78	34.88	4.44	526.65	0.68	10.719	0.119	14.06	5.07	75.81	2.14	
2039 Jul	Mean	181.19	207.56	0.03	0.01	0.65	0.07	0.12	0.06	0.01	53.67	0.24	0.96	4.49	0.66	1.23	0.22	0.011	0.008	0.34	0.93	18.69	0.034	0.011	0.39	0.02	10.39	0.008	0.14	1.65	0.18	11.19	1.85	4.88	2.77	0.35	83.61	0.05	0.850	0.014	1.65	0.51	7.46	0.17	
2039 Aug	Mean	94.34	108.07	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.94	0.21	0.50	4.12	0.41	0.97	0.12	0.007	0.004	0.18	0.49	9.73	0.031	0.010	0.20	0.01	9.30	0.004	0.10	0.86	0.16	5.83	1.72	3.94	1.44	0.18	66.53	0.03	0.442	0.010	1.15	0.33	5.32	0.09	
2039 Sep	Mean	92.78	106.29	0.02	0.01	0.57	0.04	0.09	0.05																																				

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2041 Jan	Mean	95.41	109.29	0.03	0.01	0.91	0.05	0.14	0.08	0.01	28.26	0.38	0.50	7.53	0.53	1.64	0.12	0.011	0.004	0.18	0.49	9.84	0.056	0.018	0.20	0.01	16.89	0.004	0.15	0.87	0.28	5.89	3.14	6.59	1.46	0.19	109.77	0.03	0.447	0.017	1.72	0.44	9.12	0.09
2041 Feb	Mean	92.95	106.48	0.03	0.01	0.92	0.05	0.14	0.08	0.01	27.53	0.39	0.49	7.72	0.53	1.67	0.12	0.011	0.004	0.17	0.48	9.59	0.058	0.019	0.20	0.01	17.31	0.004	0.15	0.84	0.29	5.74	3.22	6.72	1.42	0.18	111.79	0.03	0.436	0.017	1.73	0.44	9.32	0.09
2041 Mar	Mean	89.95	103.05	0.03	0.01	0.89	0.05	0.14	0.07	0.01	26.64	0.37	0.48	7.40	0.51	1.60	0.11	0.011	0.004	0.17	0.46	9.28	0.055	0.018	0.19	0.01	16.61	0.004	0.14	0.82	0.28	5.55	3.08	6.45	1.37	0.17	107.35	0.03	0.422	0.016	1.67	0.43	8.94	0.08
2041 Apr	Mean	392.24	449.32	0.06	0.03	1.61	0.15	0.28	0.16	0.02	116.18	0.64	2.07	11.85	1.49	3.20	0.49	0.033	0.018	0.74	2.02	40.47	0.091	0.029	0.84	0.05	27.81	0.018	0.34	3.56	0.47	24.22	4.77	12.08	5.99	0.76	204.15	0.12	1.839	0.037	3.88	1.17	22.48	0.37
2041 May	Mean	4946.05	5665.91	0.38	0.31	8.58	1.65	1.91	1.16	0.28	1464.98	2.73	26.16	42.10	14.94	20.00	6.13	0.323	0.225	9.31	25.50	510.27	0.360	0.108	10.55	0.65	114.27	0.226	2.73	44.95	2.02	305.39	15.03	68.45	75.48	9.60	1200.68	1.46	23.195	0.277	31.26	11.13	182.52	4.64
2041 Jun	Mean	1989.87	2279.48	0.14	0.11	3.25	0.66	0.74	0.43	0.11	589.38	0.96	10.53	14.53	5.93	7.37	2.46	0.117	0.090	3.75	10.26	205.29	0.124	0.039	4.24	0.26	39.67	0.091	1.07	18.08	0.73	122.86	5.25	25.90	30.37	3.86	458.75	0.59	9.332	0.103	12.24	4.41	64.24	1.87
2041 Jul	Mean	110.59	126.69	0.02	0.01	0.45	0.04	0.08	0.04	0.01	32.76	0.17	0.58	3.19	0.42	0.82	0.14	0.006	0.005	0.21	0.57	11.41	0.024	0.008	0.24	0.01	7.27	0.005	0.09	1.01	0.13	6.83	1.34	3.35	1.69	0.21	57.21	0.03	0.519	0.009	1.08	0.33	4.53	0.10
2041 Aug	Mean	94.91	108.73	0.02	0.01	0.52	0.04	0.09	0.05	0.01	28.11	0.20	0.50	3.94	0.40	0.94	0.12	0.007	0.004	0.18	0.49	9.79	0.029	0.010	0.20	0.01	8.90	0.004	0.10	0.86	0.15	5.86	1.65	3.81	1.45	0.18	64.38	0.03	0.445	0.010	1.13	0.32	5.12	0.09
2041 Sep	Mean	129.61	148.48	0.03	0.01	0.67	0.05	0.11	0.06	0.01	38.39	0.26	0.69	5.07	0.54	1.25	0.16	0.010	0.006	0.24	0.67	13.37	0.038	0.013	0.28	0.02	11.58	0.006	0.13	1.18	0.20	8.00	2.09	4.92	1.98	0.25	83.09	0.04	0.608	0.014	1.48	0.43	7.53	0.12
2041 Oct	Mean	123.63	141.62	0.02	0.01	0.64	0.05	0.11	0.06	0.01	36.62	0.25	0.65	4.88	0.51	1.19	0.15	0.010	0.006	0.23	0.64	12.75	0.037	0.012	0.26	0.02	11.12	0.006	0.12	1.12	0.19	7.63	2.02	4.74	1.89	0.24	80.05	0.04	0.580	0.013	1.42	0.41	7.02	0.12
2041 Nov	Mean	125.51	143.77	0.03	0.01	0.72	0.05	0.12	0.06	0.01	37.17	0.29	0.66	5.56	0.54	1.32	0.16	0.010	0.006	0.24	0.65	12.95	0.042	0.014	0.27	0.02	12.59	0.006	0.13	1.14	0.21	7.75	2.31	5.29	1.92	0.24	89.10	0.04	0.589	0.014	1.54	0.43	7.56	0.12
2041 Dec	Mean	97.47	111.65	0.03	0.01	0.79	0.05	0.12	0.07	0.01	28.87	0.32	0.52	6.39	0.50	1.42	0.12	0.010	0.004	0.18	0.50	10.06	0.048	0.016	0.21	0.01	14.36	0.004	0.13	0.89	0.24	6.02	2.67	5.73	1.49	0.19	95.76	0.03	0.457	0.015	1.54	0.41	7.85	0.09
2042 Jan	Mean	96.07	110.05	0.03	0.01	0.88	0.05	0.14	0.07	0.01	28.45	0.37	0.51	7.32	0.53	1.60	0.12	0.011	0.004	0.18	0.50	9.91	0.055	0.018	0.20	0.01	16.42	0.004	0.15	0.87	0.27	5.93	3.05	6.43	1.47	0.19	107.22	0.03	0.451	0.016	1.68	0.43	8.88	0.09
2042 Feb	Mean	93.62	107.24	0.03	0.01	0.90	0.05	0.14	0.08	0.01	27.73	0.38	0.50	7.52	0.53	1.63	0.12	0.011	0.004	0.18	0.48	9.66	0.056	0.018	0.20	0.01	16.86	0.004	0.15	0.85	0.28	5.78	3.13	6.57	1.43	0.18	109.34	0.03	0.439	0.017	1.70	0.44	9.09	0.09
2042 Mar	Mean	90.42	103.58	0.03	0.01	0.87	0.05	0.13	0.07	0.01	26.78	0.37	0.48	7.22	0.51	1.57	0.11	0.010	0.004	0.17	0.47	9.33	0.054	0.018	0.19	0.01	16.19	0.004	0.14	0.82	0.27	5.58	3.01	6.31	1.38	0.18	105.05	0.03	0.424	0.016	1.64	0.42	8.73	0.08
2042 Apr	Mean	291.58	334.01	0.04	0.02	1.06	0.11	0.19	0.11	0.02	86.36	0.40	1.54	7.46	1.06	2.09	0.36	0.022	0.013	0.55	1.50	30.08	0.058	0.018	0.62	0.04	17.57	0.013	0.23	2.65	0.30	18.00	3.01	7.96	4.45	0.57	135.43	0.09	1.367	0.025	2.67	0.82	14.48	0.27
2042 May	Mean	5171.75	5924.46	0.40	0.33	8.95	1.72	2.00	1.21	0.29	1531.83	2.84	27.36	43.71	15.61	20.82	6.40	0.336	0.235	9.74	26.66	533.55	0.373	0.112	11.03	0.68	118.63	0.236	2.85	47.00	2.10	319.32	15.62	71.36	78.93	10.04	1252.52	1.53	24.254	0.288	32.64	11.63	189.41	4.85
2042 Jun	Mean	2152.77	2466.09	0.15	0.13	3.40	0.71	0.79	0.47	0.12	637.63	1.00	11.39	14.90	6.38	7.90	2.67	0.130	0.098	4.05	11.10	222.09	0.129	0.040	4.59	0.28	41.47	0.098	1.15	19.57	0.76	132.92	5.26	27.29	32.85	4.18	483.37	0.64	10.096	0.111	13.08	4.74	71.28	2.02
2042 Jul	Mean	165.94	190.09	0.02	0.01	0.60	0.06	0.11	0.06	0.01	49.15	0.22	0.88	4.16	0.60	1.15	0.21	0.011	0.008	0.31	0.86	17.12	0.032	0.010	0.35	0.02	9.70	0.008	0.13	1.51	0.17	10.25	1.70	4.49	2.53	0.32	76.70	0.05	0.778	0.013	1.51	0.47	7.39	0.16
2042 Aug	Mean	94.94	108.76	0.02	0.01	0.52	0.04	0.09	0.05	0.01	28.12	0.20	0.50	3.95	0.40	0.94	0.12	0.007	0.004	0.18	0.49	9.79	0.030	0.010	0.20	0.01	8.92	0.004	0.10	0.86	0.15	5.86	1.65	3.82	1.45	0.18	64.54	0.03	0.445	0.010	1.13	0.32	5.12	0.09
2042 Sep	Mean	93.42	107.01	0.02	0.01	0.55	0.04	0.09	0.05	0.01	27.67	0.22	0.49	4.28	0.41	1.00	0.12	0.007	0.004	0.18	0.48	9.64	0.032	0.011	0.20	0.01	9.65	0.004	0.10	0.85	0.16	5.77	1.79	4.06	1.43	0.18	68.47	0.03	0.438	0.011	1.18	0.33	5.47	0.09
2042 Oct	Mean	113.36	129.86	0.02	0.01	0.59	0.05	0.10	0.05	0.01	33.58	0.23	0.60	4.45	0.47	1.07	0.14	0.008	0.005	0.21	0.58	11.69	0.033	0.011	0.24	0.01	10.08	0.005	0.11	1.03	0.17	7.00	1.86	4.35	1.73	0.22	73.62	0.03	0.532	0.012	1.30	0.37	5.91	0.11
2042 Nov	Mean	96.37	110.40	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.54	0.25	0.51	4.81	0.44	1.11	0.12	0.008	0.004	0.18	0.50	9.94	0.036	0.012	0.21	0.01	10.83	0.004	0.11	0.88	0.18	5.95	2.01	4.49	1.47	0.19	75.60	0.03	0.452	0.012	1.28	0.35	6.07	0.09
2042 Dec	Mean	97.86	112.10	0.03	0.01	0.77	0.05	0.12	0.07	0.01	28.98	0.32	0.52	6.22	0.49	1.39	0.12	0.009	0.004	0.18	0.50	10.10	0.046	0.015	0.21	0.01	13.97	0.004	0.13	0.89	0.23	6.04	2.59	5.60	1.49	0.19	93.63	0.03	0.459	0.014	1.51	0.40	7.66	0.09
2043 Jan	Mean	96.49	110.53	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.58	0.36	0.51	7.19	0.52	1.57	0.12	0.010	0.004	0.18	0.50	9.95	0.054	0.018	0.21	0.01	16.14	0.004	0.14	0.88	0.27	5.96	3.00	6.34	1.47	0.19	105.71	0.03	0.453	0.016	1.67	0.43	8.74	0.09
2043 Feb	Mean	93.97	107.65	0.03	0.01	0.89	0.05	0.14	0.08	0.01	27.83	0.38	0.50	7.43	0.52	1.62	0.12	0.011	0.004	0.18	0.48	9.69	0.055	0.018	0.20	0.01	16.66	0.004	0.15	0.85	0.28	5.80	3.09	6.50	1.43	0.18	108.25	0.03	0.441	0.017	1.69	0.43	8.99	0.09
2043 Mar	Mean	90.70	103.90	0.03	0.01	0.86	0.05	0.13	0.07	0.01																																		

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	159.42	182.62	0.02	0.01	0.53	0.06	0.10	0.05	0.01	47.22	0.19	0.84	3.56	0.56	1.01	0.20	0.010	0.007	0.30	0.82	16.45	0.027	0.009	0.34	0.02	8.30	0.007	0.12	1.45	0.15	9.84	1.46	3.99	2.43	0.31	68.45	0.05	0.748	0.012	1.39	0.44	6.31	0.15
2044 Aug	Mean	95.20	109.06	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.20	0.20	0.50	3.80	0.40	0.91	0.12	0.007	0.004	0.18	0.49	9.82	0.028	0.009	0.20	0.01	8.59	0.004	0.10	0.87	0.15	5.88	1.59	3.70	1.45	0.18	62.67	0.03	0.446	0.010	1.11	0.32	4.96	0.09
2044 Sep	Mean	99.37	113.83	0.02	0.01	0.56	0.04	0.09	0.05	0.01	29.43	0.22	0.53	4.27	0.43	1.01	0.12	0.007	0.005	0.19	0.51	10.25	0.032	0.011	0.21	0.01	9.63	0.005	0.10	0.90	0.16	6.14	1.78	4.09	1.52	0.19	69.12	0.03	0.466	0.011	1.20	0.34	5.54	0.09
2044 Oct	Mean	95.69	109.62	0.02	0.01	0.55	0.04	0.09	0.05	0.01	28.34	0.22	0.51	4.23	0.41	0.99	0.12	0.007	0.004	0.18	0.49	9.87	0.032	0.010	0.20	0.01	9.54	0.004	0.10	0.87	0.16	5.91	1.77	4.03	1.46	0.19	68.09	0.03	0.449	0.011	1.18	0.33	5.45	0.09
2044 Nov	Mean	96.57	110.63	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.60	0.25	0.51	4.81	0.44	1.11	0.12	0.008	0.004	0.18	0.50	9.96	0.036	0.012	0.21	0.01	10.83	0.004	0.11	0.88	0.18	5.96	2.01	4.49	1.47	0.19	75.64	0.03	0.453	0.012	1.28	0.35	6.07	0.09
2044 Dec	Mean	98.09	112.37	0.03	0.01	0.76	0.05	0.12	0.06	0.01	29.05	0.31	0.52	6.19	0.49	1.38	0.12	0.009	0.004	0.18	0.51	10.12	0.046	0.015	0.21	0.01	13.91	0.004	0.13	0.89	0.23	6.06	2.58	5.57	1.50	0.19	93.29	0.03	0.460	0.014	1.51	0.40	7.62	0.09
2045 Jan	Mean	96.72	110.79	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.65	0.36	0.51	7.11	0.52	1.56	0.12	0.010	0.004	0.18	0.50	9.98	0.053	0.017	0.21	0.01	15.95	0.004	0.14	0.88	0.27	5.97	2.96	6.27	1.48	0.19	104.65	0.03	0.454	0.016	1.65	0.43	8.65	0.09
2045 Feb	Mean	94.29	108.02	0.03	0.01	0.88	0.05	0.14	0.07	0.01	27.93	0.37	0.50	7.31	0.52	1.59	0.12	0.011	0.004	0.18	0.49	9.73	0.055	0.018	0.20	0.01	16.41	0.004	0.14	0.86	0.27	5.82	3.05	6.42	1.44	0.18	106.90	0.03	0.442	0.016	1.67	0.43	8.86	0.09
2045 Mar	Mean	91.08	104.34	0.03	0.01	0.85	0.05	0.13	0.07	0.01	26.98	0.36	0.48	7.03	0.50	1.53	0.11	0.010	0.004	0.17	0.47	9.40	0.052	0.017	0.19	0.01	15.78	0.004	0.14	0.83	0.26	5.62	2.93	6.17	1.39	0.18	102.85	0.03	0.427	0.016	1.61	0.42	8.53	0.09
2045 Apr	Mean	328.67	376.51	0.05	0.02	1.24	0.13	0.22	0.13	0.02	97.35	0.48	1.74	8.87	1.21	2.45	0.41	0.025	0.015	0.62	1.69	33.91	0.068	0.022	0.70	0.04	20.84	0.015	0.27	2.99	0.35	20.29	3.58	9.32	5.02	0.64	158.25	0.10	1.541	0.029	3.08	0.94	16.98	0.31
2045 May	Mean	5319.76	6094.01	0.40	0.33	8.90	1.76	2.01	1.22	0.30	1575.67	2.78	28.14	42.10	15.95	20.85	6.59	0.342	0.242	10.01	27.42	548.82	0.363	0.109	11.34	0.70	115.63	0.243	2.89	48.35	2.06	328.46	14.88	71.19	81.19	10.33	1252.30	1.57	24.948	0.291	33.11	11.87	191.56	4.99
2045 Jun	Mean	2392.51	2740.72	0.17	0.13	3.83	0.79	0.88	0.51	0.13	708.64	1.11	12.66	16.69	7.11	8.66	2.96	0.138	0.109	4.50	12.33	246.83	0.143	0.045	5.10	0.31	45.76	0.109	1.28	21.74	0.85	147.72	6.04	30.59	36.51	4.64	542.98	0.71	11.220	0.121	14.60	5.28	75.04	2.24
2045 Jul	Mean	180.22	206.45	0.02	0.01	0.62	0.07	0.11	0.06	0.01	53.38	0.23	0.95	4.29	0.65	1.21	0.22	0.012	0.008	0.34	0.93	18.59	0.033	0.011	0.38	0.02	10.05	0.008	0.14	1.64	0.17	11.13	1.75	4.69	2.75	0.35	80.18	0.05	0.845	0.014	1.60	0.50	7.97	0.17
2045 Aug	Mean	95.53	109.43	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.30	0.19	0.51	3.73	0.40	0.90	0.12	0.006	0.004	0.18	0.49	9.86	0.028	0.009	0.20	0.01	8.43	0.004	0.10	0.87	0.15	5.90	1.56	3.65	1.46	0.19	61.81	0.03	0.448	0.010	1.10	0.31	4.88	0.09
2045 Sep	Mean	93.78	107.43	0.02	0.01	0.54	0.04	0.09	0.05	0.01	27.78	0.21	0.50	4.16	0.41	0.98	0.12	0.007	0.004	0.18	0.48	9.67	0.031	0.010	0.20	0.01	9.38	0.004	0.10	0.85	0.16	5.79	1.74	3.97	1.43	0.18	66.97	0.03	0.440	0.010	1.16	0.33	5.34	0.09
2045 Oct	Mean	108.16	123.90	0.02	0.01	0.58	0.05	0.10	0.05	0.01	32.04	0.23	0.57	4.42	0.46	1.05	0.13	0.008	0.005	0.20	0.56	11.16	0.033	0.011	0.23	0.01	9.99	0.005	0.11	0.98	0.17	6.68	1.85	4.28	1.65	0.21	72.37	0.03	0.507	0.011	1.27	0.36	5.81	0.10
2045 Nov	Mean	111.57	127.80	0.02	0.01	0.65	0.05	0.11	0.06	0.01	33.05	0.26	0.59	5.06	0.49	1.19	0.14	0.009	0.005	0.21	0.58	11.51	0.038	0.013	0.24	0.01	11.44	0.005	0.12	1.01	0.19	6.89	2.11	4.80	1.70	0.22	80.91	0.03	0.523	0.013	1.39	0.39	6.67	0.10
2045 Dec	Mean	98.41	112.73	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.15	0.31	0.52	6.09	0.49	1.36	0.12	0.009	0.004	0.19	0.51	10.15	0.045	0.015	0.21	0.01	13.68	0.004	0.13	0.89	0.23	6.08	2.54	5.50	1.50	0.19	92.01	0.03	0.461	0.014	1.50	0.40	7.51	0.09
2046 Jan	Mean	97.11	111.24	0.03	0.01	0.85	0.05	0.13	0.07	0.01	28.76	0.36	0.51	7.00	0.52	1.54	0.12	0.010	0.004	0.18	0.50	10.02	0.052	0.017	0.21	0.01	15.71	0.004	0.14	0.88	0.26	6.00	2.92	6.19	1.48	0.19	103.37	0.03	0.455	0.016	1.64	0.43	8.53	0.09
2046 Feb	Mean	94.60	108.37	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.02	0.37	0.50	7.21	0.52	1.57	0.12	0.010	0.004	0.18	0.49	9.76	0.054	0.018	0.20	0.01	16.17	0.004	0.14	0.86	0.27	5.84	3.00	6.33	1.44	0.18	105.59	0.03	0.444	0.016	1.66	0.43	8.75	0.09
2046 Mar	Mean	91.37	104.67	0.03	0.01	0.84	0.05	0.13	0.07	0.01	27.06	0.35	0.48	6.93	0.50	1.51	0.11	0.010	0.004	0.17	0.47	9.43	0.052	0.017	0.19	0.01	15.54	0.004	0.14	0.83	0.26	5.64	2.89	6.09	1.39	0.18	101.54	0.03	0.428	0.016	1.60	0.41	8.41	0.09
2046 Apr	Mean	387.34	443.71	0.05	0.03	1.17	0.14	0.22	0.13	0.02	114.73	0.43	2.05	7.81	1.33	2.40	0.48	0.028	0.018	0.73	2.00	39.96	0.061	0.019	0.83	0.05	18.76	0.018	0.28	3.52	0.32	23.92	3.10	8.92	5.91	0.75	152.65	0.11	1.816	0.029	3.20	1.02	17.64	0.36
2046 May	Mean	4394.50	5034.08	0.33	0.27	7.58	1.46	1.69	1.02	0.24	1301.61	2.37	23.24	36.59	13.25	17.45	5.44	0.278	0.200	8.27	22.65	453.37	0.311	0.095	9.37	0.58	98.97	0.200	2.42	39.94	1.77	271.33	13.17	60.35	67.07	8.53	1061.04	1.30	20.609	0.241	27.68	9.87	156.29	4.12
2046 Jun	Mean	2658.68	3045.63	0.19	0.16	4.15	0.87	0.96	0.57	0.15	787.48	1.22	14.06	17.91	7.87	9.66	3.29	0.160	0.121	5.00	13.71	274.29	0.156	0.048	5.67	0.35	50.16	0.121	1.41	24.16	0.92	164.16	6.28	33.31	40.57	5.16	590.56	0.79	12.468	0.137	16.08	5.84	87.72	2.49
2046 Jul	Mean	146.51	167.84	0.02	0.01	0.51	0.05	0.09	0.05	0.01	43.40	0.19	0.77	3.49	0.53	0.96	0.18	0.009	0.007	0.28	0.76	15.12	0.026	0.009	0.31	0.02	8.07	0.007	0.11	1.33	0.14	9.05	1.44	3.84	2.24	0.28	65.89	0.04	0.687	0.011	1.31	0.41	5.78	0.14
2046 Aug	Mean	97.74	111.97	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.95	0.20	0.52	3.79	0.40	0.91	0.12	0.007	0.004	0.18	0.50	10.08	0.028	0.009	0.21	0.01	8.57	0.004	0.10	0.89	0.15	6.03	1.59	3.71	1.49	0.19	62.89	0.03	0.458	0.010	1.12	0.32	4.98	0.09
2046 Sep	Mean	101.29	116.04	0.02	0.01	0.55	0.04	0.09	0.05	0.01	30.00	0.2																																

Table A-9
Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	97.52	111.72	0.03	0.01	0.83	0.05	0.13	0.07	0.01	28.89	0.35	0.52	6.84	0.51	1.51	0.12	0.010	0.004	0.18	0.50	10.06	0.051	0.017	0.21	0.01	15.36	0.004	0.14	0.89	0.26	6.02	2.85	6.08	1.49	0.19	101.43	0.03	0.457	0.016	1.61	0.42	8.35	0.09
2048 Feb	Mean	94.98	108.80	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.13	0.36	0.50	7.10	0.52	1.55	0.12	0.010	0.004	0.18	0.49	9.80	0.053	0.017	0.20	0.01	15.93	0.004	0.14	0.86	0.27	5.86	2.96	6.25	1.45	0.18	104.26	0.03	0.445	0.016	1.64	0.43	8.62	0.09
2048 Mar	Mean	91.70	105.04	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.16	0.35	0.49	6.87	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.46	0.051	0.017	0.20	0.01	15.42	0.004	0.14	0.83	0.26	5.66	2.86	6.05	1.40	0.18	100.90	0.03	0.430	0.015	1.59	0.41	8.35	0.09
2048 Apr	Mean	498.57	571.13	0.07	0.04	1.67	0.19	0.30	0.18	0.03	147.67	0.64	2.64	11.58	1.77	3.42	0.62	0.039	0.023	0.94	2.57	51.44	0.090	0.028	1.06	0.07	27.71	0.023	0.38	4.53	0.47	30.78	4.59	12.62	7.61	0.97	214.67	0.15	2.338	0.041	4.36	1.37	25.55	0.47
2048 May	Mean	5086.95	5827.32	0.37	0.32	8.38	1.68	1.91	1.17	0.28	1506.71	2.62	26.91	39.36	15.22	19.86	6.30	0.331	0.231	9.58	26.22	524.80	0.341	0.101	10.85	0.67	109.02	0.232	2.75	46.23	1.93	314.09	13.76	67.27	77.63	9.88	1183.23	1.50	23.856	0.279	31.49	11.32	185.29	4.77
2048 Jun	Mean	2290.28	2623.62	0.16	0.13	3.52	0.75	0.82	0.49	0.13	678.36	1.03	12.11	15.00	6.76	8.25	2.84	0.138	0.104	4.31	11.81	236.28	0.131	0.040	4.88	0.30	42.28	0.104	1.21	20.82	0.78	141.41	5.23	28.36	34.95	4.45	503.10	0.68	10.741	0.117	13.78	5.01	75.31	2.15
2048 Jul	Mean	146.11	167.37	0.02	0.01	0.49	0.05	0.09	0.05	0.01	43.28	0.18	0.77	3.31	0.52	0.93	0.18	0.009	0.007	0.28	0.75	15.07	0.025	0.008	0.31	0.02	7.69	0.007	0.11	1.33	0.14	9.02	1.37	3.70	2.23	0.28	63.54	0.04	0.685	0.011	1.28	0.40	5.64	0.14
2048 Aug	Mean	105.19	120.50	0.02	0.01	0.52	0.04	0.09	0.05	0.01	31.16	0.20	0.56	3.87	0.43	0.94	0.13	0.007	0.005	0.20	0.54	10.85	0.029	0.010	0.22	0.01	8.76	0.005	0.10	0.96	0.15	6.49	1.62	3.83	1.61	0.20	64.98	0.03	0.493	0.010	1.17	0.34	5.17	0.10
2048 Sep	Mean	117.66	134.78	0.02	0.01	0.58	0.05	0.10	0.05	0.01	34.85	0.23	0.62	4.34	0.48	1.07	0.15	0.009	0.005	0.22	0.61	12.14	0.033	0.011	0.25	0.02	9.88	0.005	0.11	1.07	0.17	7.26	1.80	4.28	1.80	0.23	72.38	0.03	0.552	0.012	1.30	0.38	6.24	0.11
2048 Oct	Mean	110.05	126.06	0.02	0.01	0.59	0.05	0.10	0.05	0.01	32.59	0.23	0.58	4.51	0.46	1.08	0.14	0.008	0.005	0.21	0.57	11.35	0.034	0.011	0.23	0.01	10.21	0.005	0.11	1.00	0.17	6.79	1.88	4.36	1.68	0.21	73.77	0.03	0.516	0.012	1.30	0.37	6.00	0.10
2048 Nov	Mean	97.41	111.58	0.02	0.01	0.60	0.04	0.10	0.05	0.01	28.85	0.24	0.52	4.67	0.43	1.08	0.12	0.008	0.004	0.18	0.50	10.05	0.035	0.012	0.21	0.01	10.52	0.004	0.11	0.89	0.18	6.01	1.95	4.39	1.49	0.19	73.98	0.03	0.457	0.011	1.26	0.35	5.91	0.09
2048 Dec	Mean	98.83	113.21	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.27	0.31	0.52	6.01	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.20	0.045	0.015	0.21	0.01	13.51	0.005	0.13	0.90	0.23	6.10	2.51	5.44	1.51	0.19	91.13	0.03	0.463	0.014	1.49	0.40	7.43	0.09
2049 Jan	Mean	97.48	111.67	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.87	0.35	0.52	6.91	0.52	1.52	0.12	0.010	0.004	0.18	0.50	10.06	0.052	0.017	0.21	0.01	15.51	0.004	0.14	0.89	0.26	6.02	2.88	6.13	1.49	0.19	102.26	0.03	0.457	0.016	1.62	0.42	8.43	0.09
2049 Feb	Mean	94.91	108.72	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.11	0.36	0.50	7.12	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.79	0.053	0.017	0.20	0.01	15.97	0.004	0.14	0.86	0.27	5.86	2.97	6.27	1.45	0.18	104.51	0.03	0.445	0.016	1.65	0.43	8.65	0.09
2049 Mar	Mean	91.61	104.95	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.14	0.35	0.48	6.87	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.45	0.051	0.017	0.20	0.01	15.41	0.004	0.14	0.83	0.26	5.66	2.86	6.05	1.40	0.18	100.81	0.03	0.430	0.015	1.59	0.41	8.34	0.09
2049 Apr	Mean	362.88	415.69	0.05	0.02	1.24	0.14	0.22	0.13	0.02	107.48	0.46	1.92	8.54	1.30	2.45	0.45	0.026	0.017	0.68	1.87	37.44	0.066	0.021	0.77	0.05	20.15	0.017	0.28	3.30	0.35	22.41	3.44	9.33	5.54	0.70	159.32	0.11	1.702	0.029	3.20	1.00	16.90	0.34
2049 May	Mean	4891.32	5603.22	0.36	0.31	8.10	1.62	1.84	1.12	0.27	1448.77	2.53	25.87	38.12	14.64	19.14	6.06	0.318	0.222	9.21	25.21	504.62	0.330	0.098	10.43	0.64	105.38	0.223	2.65	44.45	1.87	302.01	13.36	64.92	74.65	9.50	1141.71	1.45	22.939	0.268	30.32	10.89	177.97	4.59
2049 Jun	Mean	2309.02	2645.08	0.16	0.13	3.61	0.76	0.84	0.49	0.13	683.91	1.04	12.21	15.42	6.83	8.28	2.86	0.135	0.105	4.35	11.90	238.21	0.133	0.041	4.92	0.30	42.87	0.105	1.22	20.99	0.80	142.57	5.49	28.92	35.24	4.48	513.74	0.68	10.829	0.117	13.97	5.07	73.32	2.17
2049 Jul	Mean	98.01	112.27	0.02	0.01	0.40	0.04	0.07	0.04	0.01	29.03	0.15	0.52	2.82	0.37	0.72	0.12	0.006	0.004	0.18	0.51	10.11	0.021	0.007	0.21	0.01	6.42	0.004	0.08	0.89	0.11	6.05	1.18	2.96	1.50	0.19	50.71	0.03	0.460	0.008	0.96	0.29	3.94	0.09
2049 Aug	Mean	95.53	109.44	0.02	0.01	0.49	0.04	0.08	0.04	0.01	28.30	0.19	0.51	3.71	0.40	0.89	0.12	0.006	0.004	0.18	0.49	9.86	0.028	0.009	0.20	0.01	8.38	0.004	0.10	0.87	0.14	5.90	1.55	3.63	1.46	0.19	61.54	0.03	0.448	0.010	1.09	0.31	4.85	0.09
2049 Sep	Mean	94.08	107.78	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.87	0.21	0.50	4.03	0.40	0.95	0.12	0.007	0.004	0.18	0.48	9.71	0.030	0.010	0.20	0.01	9.08	0.004	0.10	0.86	0.16	5.81	1.68	3.87	1.44	0.18	65.34	0.03	0.441	0.010	1.14	0.32	5.19	0.09
2049 Oct	Mean	145.23	166.37	0.03	0.01	0.71	0.06	0.12	0.06	0.01	43.02	0.28	0.77	5.32	0.59	1.32	0.18	0.011	0.007	0.27	0.75	14.98	0.040	0.013	0.31	0.02	12.14	0.007	0.14	1.32	0.21	8.97	2.20	5.25	2.22	0.28	88.86	0.04	0.681	0.014	1.60	0.47	7.75	0.14
2049 Nov	Mean	97.18	111.32	0.02	0.01	0.59	0.04	0.10	0.05	0.01	28.78	0.24	0.51	4.62	0.43	1.07	0.12	0.007	0.004	0.18	0.50	10.03	0.034	0.011	0.21	0.01	10.41	0.004	0.11	0.88	0.18	6.00	1.93	4.35	1.48	0.19	73.36	0.03	0.456	0.011	1.25	0.35	5.85	0.09
2049 Dec	Mean	98.61	112.96	0.03	0.01	0.74	0.05	0.12	0.06	0.01	29.21	0.30	0.52	5.96	0.48	1.34	0.12	0.009	0.004	0.19	0.51	10.17	0.044	0.015	0.21	0.01	13.39	0.004	0.13	0.90	0.23	6.09	2.49	5.40	1.50	0.19	90.42	0.03	0.462	0.014	1.48	0.39	7.36	0.09
2050 Jan	Mean	97.39	111.56	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.85	0.35	0.52	6.90	0.51	1.52	0.12	0.010	0.004	0.18	0.50	10.05	0.051	0.017	0.21	0.01	15.48	0.004	0.14	0.89	0.26	6.01	2.87	6.12	1.49	0.19	102.08	0.03	0.457	0.016	1.62	0.42	8.41	0.09
2050 Feb	Mean	94.92	108.74	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.12	0.36	0.50	7.12	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.79	0.053	0.017	0.20	0.01	15.97	0.004	0.14	0.86	0.27	5.86	2.97	6.27	1.45	0.18	104.52	0.03	0.445	0.016	1.65	0.43	8.65	0.09
2050 Mar	Mean	91.62	104.95	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.1																																	

Table A-9

Monthly WQ Report for Scenario A.3.a - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2051 Jul	Mean	118.15	135.35	0.02	0.01	0.45	0.05	0.08	0.04	0.01	35.00	0.16	0.62	3.14	0.44	0.83	0.15	0.007	0.005	0.22	0.61	12.19	0.024	0.008	0.25	0.02	7.18	0.005	0.10	1.07	0.13	7.30	1.31	3.36	1.80	0.23	57.63	0.03	0.554	0.009	1.11	0.34	4.62	0.11
2051 Aug	Mean	97.38	111.55	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.84	0.19	0.52	3.75	0.40	0.90	0.12	0.007	0.004	0.18	0.50	10.05	0.028	0.009	0.21	0.01	8.47	0.004	0.10	0.89	0.15	6.01	1.57	3.68	1.49	0.19	62.29	0.03	0.457	0.010	1.11	0.32	4.92	0.09
2051 Sep	Mean	180.37	206.63	0.03	0.01	0.72	0.07	0.13	0.07	0.01	53.43	0.27	0.95	5.15	0.68	1.38	0.22	0.013	0.008	0.34	0.93	18.61	0.039	0.013	0.38	0.02	11.98	0.008	0.15	1.64	0.20	11.14	2.10	5.36	2.75	0.35	91.01	0.05	0.846	0.016	1.74	0.53	9.02	0.17
2051 Oct	Mean	94.15	107.85	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.89	0.21	0.50	4.05	0.40	0.96	0.12	0.007	0.004	0.18	0.49	9.71	0.030	0.010	0.20	0.01	9.15	0.004	0.10	0.86	0.16	5.81	1.70	3.89	1.44	0.18	65.71	0.03	0.442	0.010	1.14	0.32	5.22	0.09
2051 Nov	Mean	96.80	110.89	0.02	0.01	0.60	0.04	0.10	0.05	0.01	28.67	0.24	0.51	4.67	0.43	1.08	0.12	0.008	0.004	0.18	0.50	9.99	0.035	0.012	0.21	0.01	10.52	0.004	0.11	0.88	0.18	5.98	1.95	4.39	1.48	0.19	73.92	0.03	0.454	0.011	1.26	0.35	5.91	0.09
2051 Dec	Mean	98.60	112.96	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.21	0.31	0.52	6.01	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.17	0.045	0.015	0.21	0.01	13.51	0.004	0.13	0.90	0.23	6.09	2.51	5.44	1.50	0.19	91.10	0.03	0.462	0.014	1.48	0.40	7.42	0.09
2052 Jan	Mean	97.32	111.48	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.82	0.35	0.51	6.93	0.52	1.52	0.12	0.010	0.004	0.18	0.50	10.04	0.052	0.017	0.21	0.01	15.55	0.004	0.14	0.88	0.26	6.01	2.89	6.14	1.49	0.19	102.47	0.03	0.456	0.016	1.63	0.42	8.45	0.09
2052 Feb	Mean	94.80	108.60	0.03	0.01	0.86	0.05	0.13	0.07	0.01	28.08	0.36	0.50	7.15	0.52	1.56	0.12	0.010	0.004	0.18	0.49	9.78	0.053	0.017	0.20	0.01	16.05	0.004	0.14	0.86	0.27	5.85	2.98	6.29	1.45	0.18	104.92	0.03	0.445	0.016	1.65	0.43	8.68	0.09
2052 Mar	Mean	91.53	104.85	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.11	0.35	0.48	6.90	0.50	1.51	0.11	0.010	0.004	0.17	0.47	9.44	0.051	0.017	0.20	0.01	15.49	0.004	0.14	0.83	0.26	5.65	2.88	6.07	1.40	0.18	101.27	0.03	0.429	0.016	1.59	0.41	8.38	0.09
2052 Apr	Mean	251.42	288.01	0.04	0.02	1.00	0.10	0.18	0.10	0.01	74.47	0.39	1.33	7.30	0.95	1.98	0.31	0.020	0.011	0.47	1.30	25.94	0.056	0.018	0.54	0.03	17.11	0.011	0.21	2.28	0.29	15.52	2.95	7.52	3.84	0.49	127.46	0.07	1.179	0.023	2.44	0.74	13.68	0.24
2052 May	Mean	5197.25	5953.67	0.39	0.33	8.68	1.72	1.96	1.20	0.29	1539.38	2.73	27.49	41.26	15.58	20.50	6.44	0.340	0.236	9.78	26.79	536.18	0.357	0.106	11.08	0.68	113.73	0.237	2.82	47.23	2.01	320.90	14.49	69.54	79.32	10.09	1222.01	1.54	24.373	0.287	32.34	11.60	190.55	4.87
2052 Jun	Mean	2366.80	2711.27	0.17	0.14	3.69	0.78	0.86	0.51	0.13	701.03	1.08	12.52	15.85	7.00	8.55	2.93	0.141	0.108	4.46	12.20	244.18	0.138	0.042	5.05	0.31	44.28	0.108	1.25	21.51	0.82	146.13	5.59	29.63	36.12	4.59	525.68	0.70	11.099	0.121	14.31	5.19	76.83	2.22
2052 Jul	Mean	227.80	260.95	0.03	0.01	0.69	0.08	0.13	0.07	0.01	67.47	0.25	1.20	4.53	0.78	1.37	0.28	0.015	0.010	0.43	1.17	23.50	0.035	0.011	0.49	0.03	10.79	0.010	0.16	2.07	0.19	14.07	1.82	5.22	3.48	0.44	89.60	0.07	1.068	0.017	1.88	0.60	9.62	0.21
2052 Aug	Mean	95.39	109.27	0.02	0.01	0.50	0.04	0.08	0.04	0.01	28.25	0.19	0.50	3.77	0.40	0.90	0.12	0.007	0.004	0.18	0.49	9.84	0.028	0.009	0.20	0.01	8.51	0.004	0.10	0.87	0.15	5.89	1.58	3.68	1.46	0.19	62.25	0.03	0.447	0.010	1.10	0.32	4.92	0.09
2052 Sep	Mean	100.18	114.75	0.02	0.01	0.55	0.04	0.09	0.05	0.01	29.67	0.22	0.53	4.21	0.43	1.00	0.12	0.007	0.005	0.19	0.52	10.33	0.031	0.010	0.21	0.01	9.51	0.005	0.10	0.91	0.16	6.19	1.76	4.05	1.53	0.19	68.50	0.03	0.470	0.011	1.20	0.34	5.52	0.09
2052 Oct	Mean	94.20	107.91	0.02	0.01	0.53	0.04	0.09	0.05	0.01	27.90	0.21	0.50	4.05	0.40	0.96	0.12	0.007	0.004	0.18	0.49	9.72	0.030	0.010	0.20	0.01	9.13	0.004	0.10	0.86	0.16	5.82	1.69	3.89	1.44	0.18	65.65	0.03	0.442	0.010	1.14	0.32	5.21	0.09
2052 Nov	Mean	96.92	111.03	0.02	0.01	0.61	0.04	0.10	0.05	0.01	28.71	0.24	0.51	4.72	0.44	1.09	0.12	0.008	0.004	0.18	0.50	10.00	0.035	0.012	0.21	0.01	10.64	0.004	0.11	0.88	0.18	5.98	1.97	4.43	1.48	0.19	74.61	0.03	0.455	0.012	1.27	0.35	5.97	0.09
2052 Dec	Mean	98.49	112.82	0.03	0.01	0.75	0.05	0.12	0.06	0.01	29.17	0.31	0.52	6.02	0.49	1.35	0.12	0.009	0.004	0.19	0.51	10.16	0.045	0.015	0.21	0.01	13.54	0.004	0.13	0.90	0.23	6.08	2.51	5.45	1.50	0.19	91.24	0.03	0.462	0.014	1.49	0.40	7.44	0.09
2053 Jan	Mean	97.22	111.37	0.03	0.01	0.84	0.05	0.13	0.07	0.01	28.80	0.35	0.51	6.94	0.52	1.53	0.12	0.010	0.004	0.18	0.50	10.03	0.052	0.017	0.21	0.01	15.57	0.004	0.14	0.88	0.26	6.00	2.89	6.15	1.48	0.19	102.59	0.03	0.456	0.016	1.63	0.42	8.46	0.09
2053 Feb	Mean	94.70	108.48	0.03	0.01	0.87	0.05	0.13	0.07	0.01	28.05	0.36	0.50	7.16	0.52	1.57	0.12	0.010	0.004	0.18	0.49	9.77	0.053	0.017	0.20	0.01	16.07	0.004	0.14	0.86	0.27	5.85	2.98	6.30	1.45	0.18	105.01	0.03	0.444	0.016	1.65	0.43	8.69	0.09
2053 Mar	Mean	91.46	104.77	0.03	0.01	0.83	0.05	0.13	0.07	0.01	27.09	0.35	0.48	6.88	0.50	1.50	0.11	0.010	0.004	0.17	0.47	9.44	0.051	0.017	0.20	0.01	15.43	0.004	0.14	0.83	0.26	5.65	2.87	6.05	1.40	0.18	100.93	0.03	0.429	0.015	1.59	0.41	8.36	0.09
2053 Apr	Mean	471.03	539.58	0.06	0.04	1.59	0.18	0.29	0.17	0.03	139.51	0.62	2.49	11.20	1.68	3.31	0.58	0.039	0.021	0.89	2.43	48.59	0.088	0.027	1.00	0.06	26.91	0.021	0.36	4.28	0.45	29.08	4.41	12.08	7.19	0.91	205.00	0.14	2.209	0.040	4.15	1.30	25.53	0.44
2053 May	Mean	5031.14	5763.38	0.37	0.31	8.43	1.67	1.90	1.16	0.28	1490.18	2.63	26.61	39.98	15.09	19.74	6.23	0.323	0.229	9.47	25.94	519.04	0.344	0.103	10.73	0.66	109.64	0.230	2.74	45.72	1.95	310.64	14.15	67.47	76.78	9.77	1186.86	1.49	23.594	0.275	31.34	11.23	180.82	4.72
2053 Jun	Mean	2389.75	2737.57	0.16	0.14	3.63	0.78	0.85	0.51	0.13	707.83	1.05	12.64	15.17	7.04	8.48	2.96	0.142	0.109	4.50	12.32	246.54	0.133	0.041	5.10	0.31	42.91	0.109	1.25	21.72	0.79	147.55	5.28	29.25	36.47	4.64	519.68	0.71	11.207	0.121	14.30	5.22	77.13	2.24
2053 Jul	Mean	97.75	111.98	0.02	0.01	0.41	0.04	0.07	0.04	0.01	28.95	0.15	0.52	2.96	0.37	0.75	0.12	0.006	0.004	0.18	0.50	10.08	0.022	0.007	0.21	0.01	6.71	0.004	0.09	0.89	0.12	6.04	1.24	3.07	1.49	0.19	52.35	0.03	0.458	0.008	0.98	0.29	4.06	0.09
2053 Aug	Mean	104.23	119.40	0.02	0.01	0.54	0.04	0.09	0.05	0.01	30.87	0.21	0.55	4.02	0.43	0.97	0.13	0.007	0.005	0.20	0.54	10.75	0.030	0.010	0.22	0.01	9.10	0.005	0.10	0.95	0.16	6.44	1.68	3.94	1.59	0.20	66.79	0.03	0.489	0.010	1.19	0.34	5.33	0.10
2053 Sep	Mean	132.98	152.33	0.03	0.01	0.66	0.05	0.																																				

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2020 Jan	Mean	112.53	128.91	0.01	0.00	0.11	0.03	0.03	0.01	0.01	33.33	0.01	0.60	0.01	0.31	0.19	0.14	0.002	0.005	0.21	0.58	11.61	0.000	0.001	0.24	0.01	0.15	0.005	0.05	1.02	0.01	6.95	0.03	0.91	1.72	0.22	17.62	0.03	0.528	0.003	0.58	0.23	0.70	0.11
2020 Feb	Mean	115.40	132.21	0.01	0.00	0.12	0.04	0.03	0.01	0.01	34.18	0.01	0.61	0.03	0.32	0.20	0.14	0.003	0.005	0.22	0.60	11.91	0.000	0.001	0.25	0.02	0.20	0.005	0.05	1.05	0.01	7.13	0.03	0.99	1.76	0.22	18.33	0.03	0.541	0.003	0.60	0.23	0.74	0.11
2020 Mar	Mean	107.21	122.85	0.01	0.00	0.11	0.04	0.03	0.01	0.01	31.76	0.01	0.57	0.04	0.30	0.19	0.13	0.002	0.005	0.20	0.55	11.07	0.000	0.001	0.23	0.01	0.23	0.005	0.05	0.97	0.01	6.64	0.03	0.97	1.64	0.21	17.27	0.03	0.503	0.003	0.56	0.22	0.72	0.10
2020 Apr	Mean	100.74	115.43	0.01	0.00	0.10	0.03	0.03	0.01	0.01	29.84	0.01	0.53	0.04	0.28	0.18	0.12	0.002	0.005	0.19	0.52	10.40	0.000	0.001	0.21	0.01	0.23	0.005	0.05	0.91	0.01	6.24	0.03	0.90	1.54	0.20	16.21	0.03	0.472	0.003	0.52	0.20	0.75	0.09
2020 May	Mean	104.24	119.45	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.88	0.01	0.55	0.05	0.29	0.19	0.13	0.002	0.005	0.20	0.54	10.76	0.000	0.001	0.22	0.01	0.27	0.005	0.05	0.94	0.01	6.46	0.03	0.96	1.59	0.20	16.90	0.03	0.489	0.003	0.54	0.21	0.80	0.10
2020 Jun	Mean	105.85	121.31	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.36	0.01	0.56	0.07	0.29	0.19	0.13	0.002	0.005	0.20	0.55	10.93	0.000	0.001	0.23	0.01	0.32	0.005	0.05	0.95	0.01	6.56	0.03	1.05	1.62	0.21	17.52	0.03	0.496	0.003	0.56	0.21	0.76	0.10
2020 Jul	Mean	106.34	121.90	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.51	0.01	0.57	0.09	0.29	0.20	0.13	0.002	0.005	0.20	0.55	10.99	0.000	0.001	0.23	0.01	0.39	0.005	0.05	0.95	0.01	6.61	0.04	1.14	1.63	0.21	18.02	0.03	0.498	0.003	0.56	0.21	0.77	0.10
2020 Aug	Mean	106.53	122.14	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.57	0.01	0.57	0.11	0.30	0.20	0.13	0.002	0.005	0.20	0.55	11.01	0.000	0.001	0.23	0.01	0.42	0.005	0.05	0.95	0.01	6.63	0.04	1.19	1.63	0.21	18.29	0.03	0.499	0.003	0.57	0.22	0.77	0.10
2020 Sep	Mean	106.31	121.90	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.51	0.01	0.57	0.11	0.30	0.20	0.13	0.002	0.005	0.20	0.55	10.99	0.000	0.001	0.23	0.01	0.44	0.005	0.05	0.94	0.02	6.63	0.04	1.21	1.63	0.21	18.38	0.03	0.498	0.003	0.57	0.22	0.77	0.10
2020 Oct	Mean	106.36	121.97	0.01	0.00	0.11	0.03	0.03	0.01	0.01	31.53	0.01	0.57	0.13	0.30	0.20	0.13	0.002	0.005	0.20	0.56	11.00	0.001	0.001	0.23	0.01	0.49	0.005	0.05	0.94	0.02	6.64	0.05	1.28	1.63	0.21	18.68	0.03	0.498	0.003	0.57	0.22	0.78	0.10
2020 Nov	Mean	108.96	124.97	0.01	0.00	0.12	0.03	0.03	0.01	0.01	32.30	0.01	0.58	0.18	0.30	0.21	0.14	0.003	0.005	0.21	0.57	11.27	0.001	0.001	0.23	0.01	0.64	0.005	0.05	0.96	0.02	6.80	0.06	1.47	1.67	0.21	19.88	0.03	0.510	0.003	0.60	0.22	0.83	0.10
2020 Dec	Mean	114.29	131.12	0.01	0.00	0.13	0.04	0.03	0.02	0.01	33.89	0.02	0.61	0.30	0.32	0.24	0.14	0.003	0.005	0.22	0.60	11.83	0.001	0.001	0.24	0.02	1.01	0.005	0.05	1.00	0.02	7.16	0.08	1.94	1.75	0.22	22.68	0.03	0.535	0.003	0.65	0.23	0.93	0.11
2021 Jan	Mean	117.31	134.75	0.01	0.00	0.15	0.04	0.04	0.02	0.01	34.81	0.03	0.63	0.55	0.34	0.28	0.15	0.003	0.006	0.22	0.62	12.18	0.002	0.002	0.25	0.02	1.78	0.005	0.06	1.00	0.02	7.43	0.13	2.87	1.81	0.23	27.43	0.03	0.548	0.004	0.72	0.25	1.12	0.11
2021 Feb	Mean	113.95	131.02	0.01	0.00	0.15	0.04	0.04	0.02	0.01	33.84	0.04	0.62	0.79	0.33	0.30	0.14	0.003	0.006	0.22	0.61	11.86	0.003	0.003	0.24	0.02	2.50	0.005	0.06	0.95	0.03	7.28	0.18	3.69	1.76	0.22	30.84	0.03	0.531	0.004	0.75	0.24	1.26	0.11
2021 Mar	Mean	104.72	120.34	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.09	0.03	0.57	0.55	0.30	0.26	0.13	0.003	0.005	0.20	0.56	10.88	0.002	0.002	0.22	0.01	1.75	0.005	0.05	0.88	0.02	6.66	0.13	2.74	1.62	0.20	25.34	0.03	0.488	0.003	0.65	0.22	1.10	0.10
2021 Apr	Mean	99.43	114.11	0.01	0.00	0.11	0.03	0.03	0.01	0.01	29.49	0.02	0.53	0.22	0.28	0.21	0.12	0.003	0.005	0.19	0.52	10.30	0.001	0.001	0.21	0.01	0.78	0.005	0.05	0.86	0.02	6.25	0.06	1.50	1.53	0.19	18.95	0.03	0.465	0.003	0.55	0.20	1.02	0.09
2021 May	Mean	103.24	118.44	0.01	0.00	0.11	0.03	0.03	0.01	0.01	30.61	0.01	0.55	0.18	0.29	0.22	0.13	0.003	0.005	0.20	0.54	10.69	0.001	0.001	0.22	0.01	0.68	0.005	0.05	0.91	0.02	6.46	0.05	1.37	1.58	0.20	18.80	0.03	0.483	0.003	0.56	0.21	1.11	0.10
2021 Jun	Mean	105.55	121.10	0.01	0.00	0.12	0.03	0.03	0.01	0.01	31.30	0.02	0.56	0.27	0.30	0.22	0.13	0.003	0.005	0.20	0.55	10.93	0.001	0.001	0.23	0.01	0.94	0.005	0.05	0.92	0.02	6.62	0.07	1.76	1.62	0.20	20.83	0.03	0.494	0.003	0.60	0.22	0.96	0.10
2021 Jul	Mean	106.15	121.88	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.49	0.02	0.57	0.42	0.30	0.24	0.13	0.003	0.005	0.20	0.56	11.01	0.002	0.002	0.23	0.01	1.37	0.005	0.05	0.91	0.02	6.69	0.10	2.30	1.63	0.20	23.42	0.03	0.496	0.003	0.63	0.22	1.00	0.10
2021 Aug	Mean	106.25	122.03	0.01	0.00	0.13	0.03	0.03	0.02	0.01	31.53	0.03	0.57	0.53	0.30	0.25	0.13	0.003	0.005	0.20	0.56	11.03	0.002	0.002	0.23	0.01	1.71	0.005	0.05	0.91	0.02	6.72	0.13	2.70	1.64	0.20	25.27	0.03	0.496	0.003	0.65	0.22	1.06	0.10
2021 Sep	Mean	105.85	121.60	0.01	0.00	0.14	0.03	0.03	0.02	0.01	31.42	0.03	0.57	0.63	0.30	0.26	0.13	0.003	0.005	0.20	0.56	10.99	0.002	0.002	0.23	0.01	2.00	0.005	0.05	0.90	0.02	6.71	0.14	3.04	1.63	0.20	26.76	0.03	0.494	0.003	0.67	0.22	1.11	0.10
2021 Oct	Mean	105.69	121.42	0.01	0.00	0.15	0.03	0.04	0.02	0.01	31.37	0.03	0.57	0.77	0.31	0.28	0.13	0.003	0.005	0.20	0.56	10.98	0.003	0.003	0.23	0.01	2.43	0.005	0.05	0.90	0.03	6.70	0.17	3.54	1.63	0.20	28.98	0.03	0.493	0.003	0.70	0.23	1.19	0.10
2021 Nov	Mean	107.98	124.04	0.01	0.00	0.16	0.04	0.04	0.02	0.01	32.05	0.04	0.58	1.03	0.32	0.30	0.14	0.003	0.005	0.21	0.57	11.21	0.004	0.003	0.23	0.01	3.20	0.005	0.05	0.92	0.03	6.84	0.22	4.45	1.67	0.21	33.28	0.03	0.504	0.004	0.76	0.23	1.34	0.10
2021 Dec	Mean	112.83	129.66	0.01	0.00	0.19	0.04	0.04	0.03	0.01	33.49	0.06	0.61	1.60	0.34	0.37	0.14	0.004	0.005	0.21	0.60	11.72	0.006	0.005	0.24	0.02	4.93	0.005	0.06	0.95	0.04	7.17	0.34	6.50	1.74	0.22	43.09	0.03	0.526	0.004	0.89	0.25	1.68	0.11
2022 Jan	Mean	114.50	131.79	0.01	0.00	0.25	0.04	0.05	0.03	0.01	34.03	0.10	0.63	2.11	0.36	0.47	0.15	0.004	0.006	0.22	0.62	11.94	0.009	0.007	0.24	0.02	6.47	0.005	0.06	0.93	0.06	7.38	0.53	8.32	1.78	0.22	51.67	0.03	0.533	0.005	1.00	0.27	2.26	0.11
2022 Feb	Mean	110.25	127.06	0.01	0.00	0.28	0.04	0.05	0.03	0.01	32.80	0.12	0.61	2.31	0.37	0.54	0.14	0.005	0.006	0.21	0.61	11.53	0.012	0.009	0.24	0.02	7.06	0.005	0.06	0.86	0.07	7.19	0.67	8.99	1.72	0.21	54.35	0.03	0.512	0.006	1.02	0.28	2.66	0.10
2022 Mar	Mean	101.91	117.34	0.01	0.00	0.24	0.04	0.05	0.03	0.01	30.30	0.10	0.56	1.76	0.33	0.46	0.13	0.004	0.005	0.20	0.56	1																						

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2023 Jul	Mean	101.60	116.94	0.01	0.00	0.29	0.04	0.06	0.04	0.01	30.20	0.14	0.56	2.88	0.35	0.56	0.13	0.005	0.005	0.19	0.55	10.60	0.013	0.011	0.22	0.01	8.78	0.005	0.05	0.82	0.08	6.55	0.75	10.86	1.58	0.20	61.36	0.03	0.473	0.006	1.08	0.27	2.92	0.09
2023 Aug	Mean	101.10	116.42	0.01	0.01	0.33	0.04	0.06	0.04	0.01	30.06	0.16	0.55	3.38	0.36	0.62	0.13	0.005	0.005	0.19	0.55	10.56	0.016	0.013	0.22	0.01	10.29	0.005	0.05	0.81	0.09	6.55	0.88	12.63	1.57	0.19	69.24	0.03	0.470	0.007	1.17	0.28	3.24	0.09
2023 Sep	Mean	100.42	115.68	0.01	0.01	0.35	0.04	0.06	0.04	0.01	29.86	0.18	0.55	3.68	0.36	0.66	0.13	0.005	0.005	0.19	0.55	10.49	0.017	0.014	0.21	0.01	11.17	0.005	0.05	0.79	0.10	6.53	0.96	13.67	1.57	0.19	73.82	0.03	0.466	0.007	1.23	0.28	3.42	0.09
2023 Oct	Mean	100.13	115.36	0.01	0.01	0.35	0.04	0.06	0.05	0.01	29.78	0.18	0.55	3.81	0.37	0.68	0.13	0.005	0.005	0.19	0.55	10.47	0.018	0.014	0.21	0.01	11.57	0.005	0.05	0.79	0.10	6.51	0.99	14.13	1.56	0.19	75.88	0.03	0.465	0.007	1.25	0.28	3.52	0.09
2023 Nov	Mean	102.39	117.93	0.01	0.01	0.36	0.04	0.06	0.05	0.01	30.45	0.18	0.56	3.85	0.37	0.69	0.13	0.006	0.005	0.20	0.56	10.70	0.018	0.014	0.22	0.01	11.70	0.005	0.05	0.81	0.10	6.65	1.00	14.29	1.60	0.20	76.81	0.03	0.476	0.007	1.27	0.29	3.59	0.10
2023 Dec	Mean	106.81	123.09	0.02	0.01	0.42	0.04	0.07	0.05	0.01	31.77	0.22	0.59	4.67	0.40	0.80	0.14	0.006	0.005	0.21	0.59	11.17	0.022	0.017	0.23	0.02	14.15	0.005	0.06	0.84	0.12	6.97	1.21	17.18	1.67	0.20	90.33	0.03	0.496	0.008	1.45	0.31	4.18	0.10
2024 Jan	Mean	107.08	123.64	0.02	0.01	0.50	0.05	0.09	0.07	0.01	31.90	0.28	0.60	6.54	0.44	0.97	0.14	0.007	0.006	0.21	0.60	11.25	0.028	0.022	0.23	0.02	19.80	0.005	0.21	0.80	0.15	7.10	1.55	23.77	1.68	0.20	120.05	0.03	0.495	0.010	1.81	0.34	5.12	0.10
2024 Feb	Mean	100.19	115.85	0.02	0.01	0.52	0.04	0.09	0.08	0.01	29.88	0.29	0.57	7.42	0.42	1.00	0.13	0.007	0.005	0.20	0.57	10.56	0.029	0.023	0.21	0.02	22.44	0.005	0.36	0.71	0.15	6.73	1.61	26.79	1.58	0.19	132.81	0.03	0.462	0.010	1.95	0.33	5.30	0.09
2024 Mar	Mean	96.94	111.83	0.01	0.01	0.37	0.04	0.07	0.06	0.01	28.86	0.20	0.54	4.93	0.36	0.72	0.13	0.006	0.005	0.19	0.54	10.16	0.019	0.015	0.21	0.01	14.95	0.004	0.27	0.74	0.10	6.38	1.06	17.96	1.52	0.19	92.73	0.03	0.449	0.008	1.45	0.28	3.95	0.09
2024 Apr	Mean	92.66	106.66	0.01	0.01	0.22	0.03	0.04	0.03	0.01	27.54	0.10	0.51	2.32	0.30	0.46	0.12	0.005	0.005	0.18	0.50	9.66	0.010	0.007	0.20	0.01	7.17	0.004	0.15	0.75	0.06	5.98	0.49	8.62	1.44	0.18	50.34	0.03	0.431	0.005	0.92	0.23	3.03	0.09
2024 May	Mean	96.40	110.91	0.01	0.01	0.19	0.03	0.04	0.03	0.01	28.64	0.08	0.53	1.83	0.30	0.42	0.12	0.005	0.005	0.18	0.52	10.04	0.008	0.006	0.21	0.01	5.71	0.004	0.13	0.79	0.05	6.19	0.39	6.88	1.50	0.19	42.99	0.03	0.449	0.005	0.84	0.23	2.97	0.09
2024 Jun	Mean	100.42	115.55	0.01	0.00	0.27	0.04	0.05	0.04	0.01	29.84	0.12	0.55	3.02	0.34	0.52	0.13	0.005	0.005	0.19	0.54	10.47	0.012	0.009	0.21	0.01	9.22	0.005	0.18	0.82	0.07	6.46	0.65	11.25	1.56	0.19	62.92	0.03	0.467	0.006	1.09	0.25	2.95	0.09
2024 Jul	Mean	99.95	115.17	0.01	0.01	0.35	0.04	0.06	0.05	0.01	29.73	0.18	0.55	4.54	0.36	0.68	0.13	0.006	0.005	0.19	0.55	10.45	0.017	0.014	0.21	0.01	13.77	0.005	0.25	0.78	0.10	6.51	0.98	16.63	1.56	0.19	87.02	0.03	0.464	0.007	1.39	0.28	3.62	0.09
2024 Aug	Mean	99.04	114.22	0.02	0.01	0.39	0.04	0.07	0.06	0.01	29.48	0.21	0.55	5.35	0.38	0.76	0.13	0.006	0.005	0.19	0.55	10.37	0.021	0.016	0.21	0.01	16.22	0.004	0.29	0.76	0.11	6.50	1.15	19.50	1.55	0.19	99.77	0.03	0.459	0.008	1.54	0.29	4.05	0.09
2024 Sep	Mean	98.10	113.17	0.02	0.01	0.42	0.04	0.07	0.06	0.01	29.20	0.23	0.54	5.76	0.38	0.80	0.13	0.006	0.005	0.19	0.54	10.28	0.022	0.018	0.21	0.01	17.45	0.004	0.31	0.75	0.12	6.46	1.24	20.94	1.54	0.19	106.13	0.03	0.455	0.008	1.61	0.30	4.24	0.09
2024 Oct	Mean	97.60	112.60	0.02	0.01	0.42	0.04	0.07	0.06	0.01	29.06	0.23	0.54	5.85	0.38	0.81	0.13	0.006	0.005	0.19	0.54	10.23	0.022	0.018	0.21	0.01	17.71	0.004	0.31	0.74	0.12	6.43	1.26	21.23	1.53	0.19	107.33	0.03	0.452	0.008	1.63	0.30	4.32	0.09
2024 Nov	Mean	99.67	114.95	0.02	0.01	0.43	0.04	0.07	0.06	0.01	29.67	0.23	0.55	5.97	0.39	0.82	0.13	0.006	0.005	0.19	0.55	10.44	0.023	0.018	0.21	0.01	18.06	0.005	0.32	0.76	0.12	6.55	1.28	21.64	1.56	0.19	109.39	0.03	0.462	0.009	1.66	0.31	4.43	0.09
2024 Dec	Mean	102.01	117.75	0.02	0.01	0.50	0.04	0.08	0.08	0.01	30.38	0.28	0.57	7.28	0.42	0.96	0.13	0.007	0.005	0.20	0.57	10.71	0.028	0.022	0.22	0.02	22.01	0.005	0.38	0.76	0.15	6.75	1.56	26.27	1.60	0.19	130.46	0.03	0.472	0.010	1.92	0.33	5.17	0.09
2025 Jan	Mean	104.30	120.13	0.02	0.01	0.47	0.04	0.08	0.07	0.01	31.01	0.24	0.57	6.02	0.41	0.88	0.13	0.007	0.005	0.20	0.57	10.89	0.025	0.017	0.22	0.01	17.54	0.005	0.77	0.83	0.14	6.77	1.42	19.54	1.62	0.20	108.32	0.03	0.485	0.009	1.67	0.32	4.65	0.10
2025 Feb	Mean	104.66	120.46	0.02	0.01	0.46	0.04	0.08	0.06	0.01	31.10	0.22	0.57	5.58	0.41	0.85	0.13	0.006	0.005	0.20	0.57	10.91	0.024	0.015	0.22	0.01	15.98	0.005	0.89	0.85	0.13	6.75	1.37	17.19	1.63	0.20	100.54	0.03	0.487	0.009	1.58	0.32	4.48	0.10
2025 Mar	Mean	102.20	117.59	0.02	0.01	0.43	0.04	0.07	0.06	0.01	30.37	0.20	0.56	5.10	0.39	0.80	0.13	0.006	0.005	0.20	0.55	10.65	0.023	0.014	0.22	0.01	14.52	0.005	0.86	0.83	0.12	6.57	1.27	15.45	1.59	0.20	92.56	0.03	0.476	0.008	1.47	0.31	4.18	0.10
2025 Apr	Mean	559.62	642.78	0.04	0.02	1.02	0.19	0.22	0.14	0.03	166.07	0.34	3.02	7.50	1.71	2.09	0.70	0.025	0.027	1.06	2.97	58.09	0.036	0.022	1.19	0.08	22.12	0.025	1.44	4.77	0.23	35.42	1.88	24.99	8.63	1.08	196.80	0.17	2.613	0.026	4.24	1.27	13.02	0.52
2025 May	Mean	4781.15	5490.96	0.29	0.20	6.32	1.56	1.57	0.87	0.26	1418.75	1.53	25.74	27.12	13.83	13.85	6.01	0.198	0.229	9.09	25.33	496.14	0.151	0.087	10.20	0.65	85.59	0.218	6.15	40.90	1.20	302.28	6.81	106.40	73.67	9.22	1121.51	1.42	22.326	0.185	29.38	10.15	95.51	4.47
2025 Jun	Mean	1870.61	2146.97	0.11	0.07	2.39	0.60	0.60	0.32	0.10	554.83	0.52	10.03	9.11	5.37	5.02	2.34	0.070	0.089	3.55	9.84	193.83	0.050	0.031	3.99	0.25	28.85	0.085	2.19	16.25	0.43	117.58	2.37	37.89	28.76	3.61	417.86	0.56	8.744	0.068	11.22	3.94	32.35	1.75
2025 Jul	Mean	102.88	118.07	0.01	0.00	0.24	0.04	0.05	0.03	0.01	30.51	0.09	0.55	2.24	0.33	0.45	0.13	0.004	0.005	0.20	0.54	10.66	0.010	0.006	0.22	0.01	6.46	0.005	0.42	0.90	0.06	6.46	0.57	7.28	1.58	0.20	49.69	0.03	0.481	0.005	0.94	0.25	2.22	0.10
2025 Aug	Mean	101.71	116.79	0.01	0.00	0.29	0.04	0.05	0.04	0.01	30.18	0.12	0.55	2.98	0.34	0.53	0.13	0.004	0.005	0.19	0.54	10.55	0.013	0.008	0.22	0.01	8.56	0.005	0.55	0.87	0.08	6.42	0.74	9.47	1.57	0.20	60.66	0.03	0.475	0.006	1.07	0.26	2.68	0.10
2025 Sep	Mean	100.84	115.81	0.01	0.00	0.31	0.04	0.06	0.04	0.01	29.92	0.13																																

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	104.09	120.04	0.02	0.01	0.60	0.05	0.10	0.08	0.01	30.98	0.33	0.58	7.48	0.46	1.12	0.13	0.008	0.005	0.20	0.58	10.90	0.034	0.023	0.22	0.02	21.60	0.005	2.13	0.80	0.18	6.83	1.91	23.52	1.63	0.20	130.04	0.03	0.483	0.011	1.94	0.36	5.99	0.10
2027 Feb	Mean	102.12	117.84	0.02	0.01	0.60	0.05	0.10	0.07	0.01	30.41	0.32	0.57	7.12	0.46	1.14	0.13	0.008	0.005	0.20	0.57	10.71	0.034	0.023	0.22	0.02	20.51	0.005	2.11	0.77	0.18	6.74	1.93	22.17	1.60	0.19	124.24	0.03	0.473	0.011	1.86	0.36	6.07	0.09
2027 Mar	Mean	126.33	145.69	0.02	0.01	0.61	0.05	0.10	0.08	0.01	37.60	0.31	0.70	6.79	0.52	1.17	0.16	0.009	0.007	0.24	0.70	13.23	0.034	0.022	0.27	0.02	19.57	0.006	2.05	0.97	0.18	8.29	1.89	21.17	1.98	0.24	122.74	0.04	0.586	0.012	1.92	0.41	6.44	0.12
2027 Apr	Mean	202.14	232.90	0.03	0.01	0.64	0.08	0.12	0.08	0.01	60.12	0.29	1.11	6.09	0.72	1.29	0.26	0.012	0.010	0.39	1.11	21.13	0.032	0.020	0.43	0.03	17.74	0.009	1.86	1.59	0.18	13.16	1.71	19.40	3.15	0.39	123.34	0.06	0.939	0.014	2.18	0.55	7.71	0.19
2027 May	Mean	4308.52	4962.43	0.28	0.23	6.21	1.46	1.50	0.87	0.23	1281.17	1.84	23.66	30.07	12.80	15.23	5.51	0.228	0.218	8.28	23.53	450.04	0.190	0.105	9.20	0.62	95.75	0.195	9.48	34.25	1.32	279.65	8.08	112.05	67.11	8.25	1100.30	1.29	20.021	0.192	27.76	9.42	116.29	4.00
2027 Jun	Mean	2851.34	3280.95	0.18	0.14	4.00	0.95	0.97	0.55	0.16	847.28	1.11	15.56	18.05	8.40	9.39	3.63	0.137	0.142	5.46	15.42	297.18	0.112	0.065	6.09	0.40	57.57	0.129	5.90	23.24	0.82	183.47	4.93	70.04	44.26	5.48	702.02	0.85	13.271	0.120	18.00	6.18	68.40	2.65
2027 Jul	Mean	152.68	175.48	0.02	0.01	0.39	0.05	0.08	0.05	0.01	45.33	0.16	0.83	3.33	0.50	0.75	0.19	0.007	0.007	0.29	0.82	15.87	0.017	0.011	0.33	0.02	9.74	0.007	1.06	1.28	0.10	9.72	0.94	11.12	2.36	0.29	74.12	0.05	0.712	0.009	1.41	0.38	4.10	0.14
2027 Aug	Mean	99.58	114.54	0.01	0.01	0.38	0.04	0.07	0.05	0.01	29.58	0.18	0.54	3.88	0.37	0.71	0.13	0.006	0.005	0.19	0.54	10.37	0.019	0.013	0.21	0.01	11.25	0.005	1.22	0.82	0.11	6.39	1.09	12.49	1.54	0.19	74.60	0.03	0.464	0.008	1.24	0.29	3.70	0.09
2027 Sep	Mean	131.24	151.08	0.02	0.01	0.49	0.05	0.09	0.06	0.01	39.01	0.24	0.72	5.06	0.49	0.95	0.17	0.008	0.007	0.25	0.71	13.69	0.025	0.017	0.28	0.02	14.69	0.006	1.58	1.06	0.14	8.48	1.42	16.23	2.04	0.25	97.30	0.04	0.610	0.010	1.62	0.38	5.21	0.12
2027 Oct	Mean	100.50	115.64	0.02	0.01	0.41	0.04	0.07	0.05	0.01	29.86	0.20	0.55	4.27	0.38	0.76	0.13	0.006	0.005	0.19	0.54	10.47	0.021	0.014	0.21	0.01	12.35	0.005	1.34	0.82	0.12	6.47	1.20	13.66	1.56	0.19	80.60	0.03	0.468	0.008	1.32	0.30	4.01	0.09
2027 Nov	Mean	101.68	117.07	0.02	0.01	0.46	0.04	0.08	0.05	0.01	30.23	0.23	0.56	4.91	0.40	0.85	0.13	0.006	0.005	0.20	0.55	10.61	0.024	0.016	0.22	0.01	14.20	0.005	1.53	0.82	0.13	6.57	1.38	15.61	1.58	0.20	90.59	0.03	0.473	0.009	1.44	0.32	4.49	0.09
2027 Dec	Mean	104.16	120.06	0.02	0.01	0.56	0.05	0.09	0.07	0.01	30.99	0.29	0.58	6.29	0.44	1.05	0.13	0.008	0.005	0.20	0.57	10.90	0.031	0.021	0.22	0.02	18.15	0.005	1.95	0.81	0.16	6.81	1.76	19.80	1.63	0.20	111.96	0.03	0.483	0.011	1.71	0.35	5.58	0.10
2028 Jan	Mean	104.02	120.04	0.02	0.01	0.62	0.05	0.10	0.08	0.01	30.97	0.33	0.58	7.39	0.47	1.17	0.13	0.008	0.005	0.20	0.58	10.91	0.036	0.024	0.22	0.02	21.39	0.005	2.40	0.78	0.19	6.87	1.99	23.40	1.63	0.20	129.00	0.03	0.482	0.012	1.92	0.37	6.25	0.10
2028 Feb	Mean	102.21	118.02	0.02	0.01	0.62	0.05	0.10	0.08	0.01	30.45	0.33	0.57	7.75	0.46	1.18	0.13	0.008	0.005	0.20	0.57	10.74	0.036	0.024	0.22	0.02	22.50	0.005	2.63	0.76	0.19	6.78	2.02	24.78	1.61	0.19	134.56	0.03	0.473	0.012	1.98	0.37	6.34	0.09
2028 Mar	Mean	99.03	114.36	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.50	0.32	0.55	7.48	0.45	1.13	0.13	0.008	0.005	0.19	0.56	10.41	0.034	0.023	0.21	0.01	21.76	0.004	2.58	0.73	0.18	6.58	1.93	24.02	1.56	0.19	130.11	0.03	0.458	0.011	1.92	0.36	6.07	0.09
2028 Apr	Mean	152.43	175.73	0.02	0.01	0.59	0.06	0.10	0.08	0.01	45.36	0.29	0.84	6.71	0.58	1.18	0.20	0.011	0.008	0.29	0.84	15.96	0.032	0.021	0.33	0.02	19.70	0.007	2.32	1.18	0.17	9.98	1.72	21.84	2.38	0.29	125.83	0.05	0.707	0.013	2.04	0.45	7.09	0.14
2028 May	Mean	3857.94	4448.66	0.26	0.27	5.87	1.34	1.39	0.95	0.21	1148.15	2.12	21.36	36.42	11.66	16.32	4.97	0.275	0.200	7.45	21.32	404.05	0.230	0.111	8.24	0.56	117.64	0.175	11.63	29.72	1.37	253.04	8.40	124.72	60.36	7.37	1096.97	1.16	17.891	0.209	26.38	8.60	150.43	3.58
2028 Jun	Mean	1820.42	2097.10	0.12	0.12	2.68	0.62	0.64	0.42	0.10	541.39	0.91	10.01	15.51	5.45	7.13	2.33	0.118	0.093	3.50	9.96	190.23	0.096	0.049	3.89	0.26	50.15	0.083	5.10	14.40	0.60	118.35	3.63	55.01	28.38	3.49	495.73	0.55	8.456	0.092	12.14	4.01	62.99	1.69
2028 Jul	Mean	100.40	115.43	0.01	0.01	0.33	0.04	0.06	0.04	0.01	29.82	0.16	0.54	3.60	0.36	0.63	0.13	0.005	0.005	0.19	0.54	10.44	0.016	0.011	0.21	0.01	10.59	0.005	1.29	0.84	0.09	6.41	0.92	12.13	1.55	0.19	70.82	0.03	0.468	0.007	1.19	0.28	3.31	0.09
2028 Aug	Mean	106.07	122.06	0.02	0.01	0.43	0.04	0.07	0.06	0.01	31.52	0.21	0.58	4.93	0.40	0.80	0.13	0.006	0.005	0.20	0.57	11.06	0.022	0.016	0.23	0.01	14.47	0.005	1.76	0.86	0.12	6.83	1.25	16.41	1.65	0.20	92.08	0.03	0.494	0.009	1.47	0.31	4.29	0.10
2028 Sep	Mean	130.05	149.74	0.02	0.01	0.49	0.05	0.09	0.07	0.01	38.66	0.24	0.71	5.52	0.48	0.95	0.17	0.008	0.007	0.25	0.71	13.57	0.025	0.017	0.28	0.02	16.27	0.006	1.96	1.04	0.14	8.42	1.40	18.34	2.02	0.25	104.61	0.04	0.605	0.010	1.71	0.38	5.45	0.12
2028 Oct	Mean	141.66	163.35	0.02	0.01	0.53	0.06	0.09	0.07	0.01	42.16	0.27	0.78	6.07	0.53	1.09	0.18	0.010	0.007	0.27	0.78	14.84	0.028	0.019	0.30	0.02	17.95	0.006	2.13	1.09	0.15	9.29	1.52	19.98	2.22	0.27	114.25	0.04	0.657	0.012	1.87	0.41	6.88	0.13
2028 Nov	Mean	101.41	116.81	0.02	0.01	0.47	0.04	0.08	0.06	0.01	30.16	0.24	0.56	5.71	0.41	0.89	0.13	0.007	0.005	0.19	0.55	10.59	0.026	0.018	0.22	0.01	16.71	0.005	2.02	0.81	0.14	6.58	1.45	18.78	1.58	0.19	103.44	0.03	0.471	0.009	1.60	0.32	4.72	0.09
2028 Dec	Mean	104.35	120.35	0.02	0.01	0.58	0.05	0.10	0.08	0.01	31.06	0.31	0.58	7.20	0.45	1.09	0.13	0.008	0.005	0.20	0.58	10.93	0.033	0.022	0.22	0.02	21.02	0.005	2.54	0.80	0.17	6.85	1.83	23.45	1.63	0.20	126.71	0.03	0.484	0.011	1.89	0.36	5.80	0.10
2029 Jan	Mean	103.79	119.81	0.02	0.01	0.64	0.05	0.10	0.09	0.01	30.91	0.35	0.58	8.42	0.47	1.22	0.13	0.009	0.005	0.20	0.58	10.90	0.037	0.025	0.22	0.02	24.54	0.005	2.97	0.77	0.19	6.88	2.10	27.15	1.63	0.20	145.29	0.03	0.480	0.012	2.12	0.38	6.54	0.10
2029 Feb	Mean	101.45	117.15	0.02	0.01	0.66	0.05	0.11	0.09	0.01	30.22	0.36	0.57	8.90	0.47	1.25	0.13	0.009	0.005	0.20	0.57	10.66	0.039	0.026	0.22	0.02	25.87	0.005	3.14	0.75	0.20	6.74	2.17	28.47	1.60	0.19	151.97	0.03	0.469	0.013	2.19	0.38	6.74	0.09
2029 Mar	Mean	98.04	113.22	0.02	0.01	0.64	0.0																																					

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	157.14	180.78	0.02	0.01	0.48	0.06	0.09	0.07	0.01	46.69	0.23	0.86	5.81	0.55	0.96	0.20	0.009	0.008	0.30	0.85	16.37	0.024	0.016	0.34	0.02	17.24	0.007	2.13	1.29	0.13	10.09	1.28	19.55	2.44	0.30	112.76	0.05	0.732	0.011	1.89	0.42	5.87	0.15
2030 Aug	Mean	98.17	112.98	0.02	0.01	0.43	0.04	0.07	0.06	0.01	29.17	0.22	0.54	5.87	0.39	0.81	0.12	0.006	0.005	0.19	0.53	10.23	0.023	0.016	0.21	0.01	17.26	0.004	2.16	0.80	0.12	6.32	1.30	19.53	1.52	0.19	105.40	0.03	0.457	0.008	1.61	0.30	4.31	0.09
2030 Sep	Mean	127.00	146.26	0.02	0.01	0.53	0.05	0.09	0.08	0.01	37.76	0.27	0.70	7.14	0.49	1.03	0.16	0.009	0.006	0.24	0.69	13.26	0.029	0.019	0.27	0.02	21.05	0.006	2.61	1.01	0.15	8.24	1.57	23.66	1.98	0.24	129.00	0.04	0.590	0.011	1.99	0.38	5.94	0.12
2030 Oct	Mean	97.53	112.28	0.02	0.01	0.45	0.04	0.08	0.07	0.01	28.99	0.23	0.53	6.10	0.39	0.84	0.12	0.006	0.005	0.19	0.53	10.18	0.024	0.017	0.21	0.01	17.89	0.004	2.23	0.78	0.13	6.30	1.36	20.16	1.52	0.19	108.77	0.03	0.454	0.009	1.65	0.31	4.43	0.09
2030 Nov	Mean	100.92	116.25	0.02	0.01	0.50	0.04	0.08	0.07	0.01	30.01	0.26	0.55	6.93	0.42	0.94	0.13	0.007	0.005	0.19	0.55	10.54	0.027	0.019	0.22	0.01	20.31	0.005	2.52	0.80	0.15	6.56	1.54	22.80	1.57	0.19	122.10	0.03	0.469	0.010	1.82	0.33	4.97	0.09
2030 Dec	Mean	103.72	119.62	0.02	0.01	0.61	0.05	0.10	0.09	0.01	30.87	0.32	0.58	8.76	0.46	1.14	0.13	0.008	0.005	0.20	0.57	10.87	0.035	0.024	0.22	0.02	25.64	0.005	3.18	0.79	0.18	6.82	1.95	28.62	1.62	0.20	150.63	0.03	0.481	0.012	2.18	0.37	6.12	0.10
2031 Jan	Mean	103.14	119.09	0.03	0.01	0.68	0.05	0.11	0.10	0.01	30.73	0.37	0.58	10.42	0.48	1.28	0.13	0.009	0.005	0.20	0.58	10.84	0.040	0.027	0.22	0.02	30.51	0.005	3.70	0.76	0.21	6.85	2.23	34.00	1.62	0.20	176.12	0.03	0.477	0.013	2.49	0.39	6.91	0.10
2031 Feb	Mean	100.70	116.36	0.03	0.01	0.70	0.05	0.11	0.11	0.01	30.01	0.38	0.57	11.19	0.49	1.32	0.13	0.009	0.005	0.20	0.57	10.60	0.041	0.028	0.22	0.02	32.81	0.005	3.90	0.73	0.21	6.72	2.31	36.60	1.59	0.19	187.80	0.03	0.465	0.013	2.63	0.39	7.13	0.09
2031 Mar	Mean	97.32	112.46	0.03	0.01	0.67	0.05	0.11	0.11	0.01	29.01	0.37	0.55	10.90	0.47	1.27	0.13	0.009	0.005	0.19	0.55	10.24	0.040	0.027	0.21	0.01	31.95	0.004	3.77	0.71	0.21	6.50	2.22	35.65	1.53	0.18	182.72	0.03	0.450	0.013	2.55	0.38	6.87	0.09
2031 Apr	Mean	215.01	248.02	0.03	0.02	0.72	0.08	0.13	0.12	0.01	64.01	0.36	1.19	9.92	0.78	1.59	0.28	0.018	0.011	0.42	1.19	22.54	0.039	0.024	0.46	0.03	29.58	0.010	3.36	1.64	0.21	14.15	1.97	32.52	3.37	0.41	182.64	0.06	0.997	0.018	2.95	0.60	11.55	0.20
2031 May	Mean	3884.62	4476.94	0.27	0.30	6.06	1.34	1.41	1.13	0.21	1155.63	2.40	21.43	49.14	11.79	17.54	4.99	0.306	0.199	7.48	21.35	406.33	0.264	0.119	8.30	0.56	157.58	0.176	15.38	30.38	1.46	253.53	8.99	162.10	60.65	7.43	1269.96	1.17	18.032	0.228	28.56	8.67	174.97	3.61
2031 Jun	Mean	2195.92	2528.82	0.15	0.15	3.33	0.75	0.78	0.60	0.12	652.90	1.24	12.05	25.40	6.60	9.27	2.81	0.159	0.111	4.22	11.97	229.30	0.135	0.063	4.69	0.31	81.48	0.100	8.09	17.52	0.77	142.34	4.71	85.72	34.19	4.21	686.64	0.66	10.207	0.121	15.73	4.85	89.45	2.04
2031 Jul	Mean	122.52	140.91	0.02	0.01	0.42	0.05	0.08	0.07	0.01	36.39	0.20	0.67	5.73	0.44	0.80	0.16	0.007	0.006	0.23	0.66	12.75	0.021	0.014	0.26	0.02	16.94	0.006	2.01	1.01	0.11	7.85	1.15	19.34	1.90	0.24	106.80	0.04	0.571	0.009	1.70	0.34	4.47	0.11
2031 Aug	Mean	97.85	112.65	0.02	0.01	0.44	0.04	0.08	0.07	0.01	29.09	0.23	0.54	6.72	0.39	0.84	0.12	0.006	0.005	0.19	0.53	10.21	0.024	0.017	0.21	0.01	19.82	0.004	2.35	0.79	0.13	6.32	1.35	22.48	1.52	0.19	118.66	0.03	0.455	0.009	1.77	0.31	4.46	0.09
2031 Sep	Mean	98.08	112.96	0.02	0.01	0.48	0.04	0.08	0.08	0.01	29.16	0.25	0.54	7.42	0.40	0.90	0.13	0.007	0.005	0.19	0.54	10.24	0.027	0.018	0.21	0.01	21.85	0.004	2.59	0.78	0.14	6.36	1.49	24.74	1.53	0.19	129.41	0.03	0.456	0.009	1.90	0.32	4.84	0.09
2031 Oct	Mean	96.37	111.01	0.02	0.01	0.49	0.04	0.08	0.08	0.01	28.66	0.26	0.53	7.60	0.40	0.92	0.12	0.007	0.005	0.19	0.53	10.07	0.027	0.019	0.21	0.01	22.39	0.004	2.66	0.76	0.14	6.26	1.52	25.33	1.50	0.18	131.96	0.03	0.448	0.009	1.93	0.32	4.90	0.09
2031 Nov	Mean	99.46	114.62	0.02	0.01	0.55	0.04	0.09	0.09	0.01	29.59	0.29	0.55	8.70	0.43	1.03	0.13	0.007	0.005	0.19	0.55	10.40	0.031	0.022	0.21	0.01	25.64	0.005	3.04	0.78	0.16	6.49	1.74	28.97	1.55	0.19	149.49	0.03	0.462	0.011	2.15	0.34	5.50	0.09
2031 Dec	Mean	101.86	117.55	0.03	0.01	0.67	0.05	0.11	0.11	0.01	30.33	0.37	0.57	11.13	0.48	1.27	0.13	0.009	0.005	0.20	0.57	10.69	0.040	0.027	0.22	0.02	32.77	0.005	3.89	0.77	0.20	6.73	2.21	36.90	1.60	0.19	187.31	0.03	0.472	0.013	2.62	0.38	6.84	0.09
2032 Jan	Mean	101.29	117.02	0.03	0.01	0.75	0.05	0.12	0.13	0.01	30.19	0.42	0.57	12.98	0.50	1.41	0.13	0.010	0.005	0.20	0.57	10.65	0.045	0.031	0.22	0.02	38.23	0.005	4.42	0.74	0.23	6.76	2.50	42.99	1.60	0.19	215.83	0.03	0.468	0.014	2.97	0.41	7.64	0.09
2032 Feb	Mean	99.14	114.59	0.03	0.01	0.75	0.05	0.12	0.13	0.01	29.55	0.42	0.56	13.55	0.50	1.42	0.13	0.010	0.005	0.19	0.56	10.44	0.045	0.031	0.21	0.02	39.92	0.004	4.51	0.71	0.23	6.64	2.53	44.90	1.56	0.19	224.34	0.03	0.458	0.014	3.07	0.41	7.72	0.09
2032 Mar	Mean	96.08	111.07	0.03	0.01	0.72	0.05	0.11	0.13	0.01	28.65	0.40	0.54	13.06	0.48	1.36	0.13	0.009	0.005	0.19	0.54	10.12	0.043	0.030	0.21	0.01	38.47	0.004	4.31	0.69	0.22	6.44	2.41	43.25	1.52	0.18	216.26	0.03	0.444	0.014	2.96	0.39	7.38	0.09
2032 Apr	Mean	117.37	135.37	0.02	0.01	0.60	0.05	0.10	0.11	0.01	34.94	0.32	0.65	10.26	0.49	1.17	0.15	0.009	0.006	0.23	0.65	12.30	0.034	0.023	0.25	0.02	30.32	0.005	3.37	0.90	0.18	7.71	1.89	34.17	1.84	0.22	176.04	0.04	0.544	0.012	2.54	0.39	6.64	0.11
2032 May	Mean	2833.75	3265.94	0.21	0.21	4.71	0.98	1.07	0.88	0.15	843.03	1.90	15.63	44.23	8.69	13.08	3.64	0.219	0.145	5.46	15.58	296.43	0.207	0.101	6.05	0.41	139.43	0.128	13.58	22.14	1.15	184.99	7.67	147.96	44.25	5.42	1062.08	0.85	13.153	0.168	22.48	6.42	124.99	2.63
2032 Jun	Mean	1657.08	1908.54	0.12	0.12	2.63	0.57	0.61	0.48	0.09	492.74	1.01	9.10	23.13	5.03	7.16	2.12	0.119	0.084	3.18	9.05	173.08	0.109	0.054	3.54	0.24	73.15	0.075	7.17	13.18	0.62	107.54	4.03	78.65	25.81	3.17	581.91	0.50	7.700	0.093	12.64	3.70	67.01	1.54
2032 Jul	Mean	152.82	176.07	0.02	0.01	0.51	0.06	0.09	0.09	0.01	45.45	0.25	0.84	7.67	0.55	1.07	0.20	0.011	0.008	0.29	0.84	15.97	0.027	0.018	0.33	0.02	22.86	0.007	2.51	1.21	0.14	9.95	1.41	25.71	2.38	0.29	140.55	0.05	0.710	0.012	2.22	0.42	7.02	0.14
2032 Aug	Mean	110.97	127.76	0.02	0.01	0.49	0.05	0.08	0.08	0.01	32.99	0.25	0.61	8.05	0.44	0.93	0.14	0.007	0.006	0.21	0.60	11.58	0.026	0.018	0.24	0.02	23.79	0.005	2.66	0.89	0.14	7.18	1.48	27.07	1.73	0.21	141.13	0.03	0.516	0.010	2.09	0.34	5.06	0.10
2032 Sep	Mean	100.43	115.70	0.02	0.01																																							

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2034 Jan	Mean	103.25	119.32	0.03	0.01	0.68	0.05	0.11	0.13	0.01	30.78	0.38	0.58	13.14	0.49	1.29	0.13	0.009	0.006	0.20	0.58	10.87	0.040	0.028	0.22	0.02	38.70	0.005	4.06	0.75	0.21	6.90	2.24	43.53	1.63	0.20	218.64	0.03	0.477	0.013	2.82	0.39	6.97	0.10
2034 Feb	Mean	101.28	117.09	0.03	0.01	0.69	0.05	0.11	0.13	0.01	30.20	0.38	0.57	13.45	0.48	1.30	0.13	0.009	0.006	0.20	0.57	10.67	0.040	0.028	0.22	0.02	39.61	0.005	4.20	0.72	0.21	6.80	2.26	44.51	1.60	0.19	223.12	0.03	0.468	0.013	2.82	0.39	7.02	0.09
2034 Mar	Mean	98.24	113.58	0.02	0.01	0.65	0.05	0.10	0.12	0.01	29.29	0.36	0.55	12.70	0.46	1.23	0.13	0.009	0.005	0.19	0.56	10.35	0.038	0.026	0.21	0.01	37.36	0.004	3.97	0.70	0.20	6.59	2.13	41.95	1.55	0.19	210.95	0.03	0.454	0.012	2.67	0.37	6.64	0.09
2034 Apr	Mean	230.09	265.46	0.03	0.02	0.72	0.09	0.13	0.14	0.01	68.50	0.35	1.28	11.57	0.82	1.60	0.30	0.018	0.012	0.44	1.28	24.13	0.038	0.024	0.49	0.03	34.52	0.010	3.58	1.75	0.20	15.16	1.93	38.38	3.61	0.44	211.07	0.07	1.066	0.018	3.13	0.63	11.38	0.21
2034 May	Mean	2819.64	3252.57	0.19	0.23	4.38	0.99	1.03	0.86	0.15	839.37	1.72	15.65	39.95	8.59	12.94	3.64	0.233	0.147	5.45	15.64	295.56	0.190	0.085	6.02	0.41	127.02	0.128	11.45	21.50	1.07	185.54	6.49	132.36	44.17	5.38	991.63	0.85	13.068	0.168	21.04	6.36	128.78	2.61
2034 Jun	Mean	2122.64	2445.35	0.14	0.15	3.13	0.73	0.75	0.58	0.11	631.29	1.11	11.68	25.80	6.37	8.71	2.72	0.152	0.108	4.08	11.62	221.83	0.121	0.057	4.53	0.31	82.11	0.096	7.59	16.77	0.72	138.05	4.27	88.39	33.09	4.06	688.63	0.64	9.860	0.114	15.13	4.71	82.15	1.97
2034 Jul	Mean	133.64	153.87	0.02	0.01	0.40	0.05	0.07	0.07	0.01	39.73	0.18	0.73	6.13	0.46	0.81	0.17	0.008	0.007	0.26	0.73	13.95	0.019	0.013	0.29	0.02	18.20	0.006	1.92	1.07	0.11	8.65	1.04	20.62	2.08	0.26	114.38	0.04	0.621	0.009	1.72	0.35	4.99	0.12
2034 Aug	Mean	99.04	114.06	0.02	0.01	0.40	0.04	0.07	0.07	0.01	29.45	0.20	0.54	6.97	0.38	0.76	0.13	0.006	0.005	0.19	0.54	10.34	0.021	0.014	0.21	0.01	20.55	0.004	2.20	0.79	0.11	6.42	1.18	23.32	1.54	0.19	122.75	0.03	0.460	0.008	1.69	0.30	4.03	0.09
2034 Sep	Mean	111.29	128.22	0.02	0.01	0.47	0.05	0.08	0.09	0.01	33.10	0.23	0.61	8.21	0.43	0.89	0.14	0.007	0.006	0.21	0.61	11.63	0.025	0.017	0.24	0.02	24.20	0.005	2.58	0.88	0.13	7.25	1.39	27.38	1.74	0.21	143.59	0.03	0.517	0.009	1.96	0.34	4.84	0.10
2034 Oct	Mean	99.62	114.79	0.02	0.01	0.43	0.04	0.07	0.08	0.01	29.63	0.22	0.55	7.74	0.39	0.83	0.13	0.006	0.005	0.19	0.55	10.42	0.023	0.016	0.21	0.01	22.82	0.005	2.44	0.78	0.13	6.49	1.31	25.84	1.55	0.19	134.73	0.03	0.463	0.009	1.82	0.31	4.40	0.09
2034 Nov	Mean	101.32	116.80	0.02	0.01	0.49	0.04	0.08	0.09	0.01	30.15	0.25	0.56	8.91	0.41	0.92	0.13	0.007	0.005	0.20	0.56	10.60	0.027	0.018	0.22	0.01	26.24	0.005	2.80	0.79	0.14	6.63	1.50	29.66	1.58	0.19	152.99	0.03	0.470	0.009	2.03	0.33	4.87	0.09
2034 Dec	Mean	104.31	120.42	0.02	0.01	0.60	0.05	0.10	0.11	0.01	31.07	0.32	0.58	11.43	0.46	1.13	0.14	0.008	0.006	0.20	0.58	10.95	0.034	0.023	0.22	0.02	33.67	0.005	3.59	0.78	0.18	6.91	1.91	37.92	1.64	0.20	192.43	0.03	0.483	0.011	2.47	0.37	6.06	0.10
2035 Jan	Mean	100.55	116.28	0.03	0.01	0.78	0.05	0.12	0.14	0.01	29.99	0.42	0.57	14.14	0.51	1.48	0.13	0.010	0.005	0.20	0.57	10.60	0.047	0.029	0.22	0.02	40.70	0.005	4.07	0.71	0.24	6.76	2.65	43.51	1.59	0.19	230.04	0.03	0.464	0.015	2.86	0.42	8.07	0.09
2035 Feb	Mean	94.77	109.73	0.03	0.01	0.92	0.05	0.14	0.15	0.00	28.29	0.48	0.54	15.44	0.55	1.74	0.13	0.012	0.005	0.19	0.55	10.02	0.057	0.031	0.20	0.01	43.49	0.004	4.05	0.65	0.29	6.44	3.19	44.09	1.51	0.18	245.31	0.03	0.436	0.017	3.01	0.45	9.55	0.09
2035 Mar	Mean	90.56	104.87	0.03	0.01	0.93	0.05	0.14	0.14	0.00	27.03	0.48	0.52	15.00	0.54	1.75	0.12	0.012	0.005	0.18	0.52	9.58	0.058	0.031	0.19	0.01	41.85	0.004	3.77	0.61	0.29	6.17	3.23	41.47	1.44	0.17	236.59	0.03	0.417	0.017	2.90	0.45	9.61	0.08
2035 Apr	Mean	473.13	545.03	0.07	0.04	1.64	0.19	0.30	0.26	0.03	140.71	0.74	2.60	21.07	1.73	3.51	0.61	0.039	0.024	0.91	2.59	49.44	0.089	0.044	1.01	0.07	59.70	0.021	5.18	3.75	0.47	30.75	4.58	58.50	7.37	0.91	378.49	0.14	2.198	0.040	5.81	1.33	24.87	0.44
2035 May	Mean	4531.90	5213.52	0.35	0.31	8.09	1.57	1.79	1.34	0.25	1346.43	2.95	24.69	68.43	13.98	20.27	5.76	0.318	0.225	8.67	24.44	472.10	0.347	0.149	9.68	0.64	203.83	0.206	16.55	37.15	1.97	291.00	14.51	198.91	70.28	8.71	1633.81	1.36	21.101	0.261	33.95	10.41	178.62	4.22
2035 Jun	Mean	2385.82	2743.20	0.18	0.15	4.09	0.82	0.92	0.66	0.13	708.56	1.41	12.95	32.51	7.28	9.90	3.02	0.152	0.117	4.55	12.80	248.23	0.163	0.072	5.09	0.33	96.78	0.108	8.01	19.83	0.96	152.45	6.99	96.72	36.92	4.59	814.51	0.71	11.119	0.128	17.34	5.41	83.46	2.22
2035 Jul	Mean	148.64	171.11	0.02	0.01	0.58	0.06	0.10	0.09	0.01	44.18	0.26	0.81	7.69	0.56	1.16	0.19	0.011	0.007	0.29	0.81	15.51	0.031	0.016	0.32	0.02	21.62	0.007	1.91	1.20	0.17	9.60	1.69	21.46	2.31	0.29	135.65	0.04	0.691	0.013	2.00	0.44	7.24	0.14
2035 Aug	Mean	146.14	168.51	0.03	0.01	0.77	0.06	0.13	0.12	0.01	43.49	0.37	0.81	11.06	0.62	1.53	0.19	0.013	0.008	0.28	0.81	15.30	0.045	0.023	0.31	0.02	30.90	0.007	2.71	1.13	0.23	9.58	2.44	30.23	2.29	0.28	184.91	0.04	0.678	0.016	2.54	0.49	9.38	0.14
2035 Sep	Mean	92.45	106.63	0.02	0.01	0.64	0.04	0.10	0.10	0.00	27.52	0.31	0.51	9.63	0.44	1.19	0.12	0.008	0.005	0.18	0.51	9.69	0.038	0.020	0.20	0.01	26.82	0.004	2.40	0.71	0.19	6.07	2.11	26.58	1.45	0.18	156.86	0.03	0.429	0.012	2.03	0.36	6.49	0.09
2035 Oct	Mean	120.73	139.17	0.03	0.01	0.75	0.06	0.12	0.11	0.01	35.92	0.36	0.67	11.19	0.55	1.41	0.16	0.010	0.006	0.23	0.67	12.64	0.044	0.023	0.26	0.02	31.24	0.005	2.81	0.94	0.23	7.90	2.43	31.07	1.89	0.23	184.22	0.04	0.560	0.014	2.43	0.44	7.84	0.11
2035 Nov	Mean	95.05	109.71	0.03	0.01	0.73	0.05	0.12	0.11	0.01	28.31	0.37	0.53	11.47	0.48	1.37	0.12	0.009	0.005	0.18	0.53	9.98	0.044	0.023	0.20	0.01	32.04	0.004	2.90	0.71	0.23	6.28	2.47	31.90	1.49	0.18	184.84	0.03	0.440	0.014	2.34	0.39	7.50	0.09
2035 Dec	Mean	95.74	110.70	0.03	0.01	0.90	0.05	0.14	0.14	0.01	28.55	0.46	0.54	14.63	0.54	1.70	0.13	0.011	0.005	0.19	0.54	10.09	0.056	0.030	0.20	0.01	40.88	0.004	3.71	0.68	0.28	6.43	3.12	40.67	1.51	0.18	231.96	0.03	0.442	0.017	2.86	0.45	9.33	0.09
2036 Jan	Mean	94.25	109.13	0.04	0.01	1.01	0.06	0.15	0.16	0.00	28.13	0.52	0.54	16.48	0.57	1.89	0.12	0.013	0.005	0.18	0.54	9.96	0.063	0.033	0.20	0.01	46.02	0.004	4.16	0.64	0.32	6.41	3.52	45.64	1.50	0.18	259.12	0.03	0.434	0.019	3.15	0.48	10.44	0.09
2036 Feb	Mean	92.11	106.70	0.04	0.01	1.02	0.06	0.15	0.16	0.00	27.50	0.53	0.53	16.54	0.57	1.91	0.12	0.013	0.005	0.18	0.53	9.75	0.064	0.034	0.20	0.01	46.11	0.004	4.14	0.62	0.32	6.29	3.56	45.52	1.47	0.17	259.48	0.03	0.424	0.019	3.15	0.48	10.55	0.08
2036 Mar	Mean	89.18	103.30	0.04	0.																																							

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	348.09	399.72	0.04	0.02	1.05	0.13	0.20	0.16	0.02	103.28	0.44	1.87	12.27	1.21	2.17	0.44	0.024	0.017	0.66	1.84	36.11	0.054	0.026	0.74	0.05	34.59	0.016	2.93	2.99	0.29	21.98	2.76	33.59	5.36	0.67	228.85	0.10	1.626	0.026	3.73	0.92	15.25	0.33
2037 Aug	Mean	96.62	111.33	0.02	0.01	0.57	0.04	0.09	0.08	0.01	28.74	0.27	0.53	7.97	0.43	1.06	0.12	0.008	0.005	0.19	0.53	10.10	0.033	0.017	0.21	0.01	22.02	0.004	1.91	0.76	0.17	6.30	1.82	21.43	1.51	0.18	132.19	0.03	0.449	0.011	1.79	0.34	5.76	0.09
2037 Sep	Mean	103.86	119.71	0.02	0.01	0.63	0.05	0.10	0.09	0.01	30.90	0.30	0.57	9.01	0.47	1.19	0.13	0.009	0.005	0.20	0.57	10.87	0.037	0.019	0.22	0.02	24.89	0.005	2.16	0.81	0.19	6.78	2.05	24.20	1.62	0.20	148.53	0.03	0.482	0.012	1.99	0.38	6.53	0.10
2037 Oct	Mean	103.87	119.73	0.02	0.01	0.64	0.05	0.10	0.09	0.01	30.91	0.31	0.57	9.18	0.47	1.21	0.13	0.009	0.005	0.20	0.57	10.87	0.037	0.019	0.22	0.02	25.38	0.005	2.20	0.81	0.19	6.79	2.09	24.66	1.62	0.20	151.11	0.03	0.482	0.012	2.02	0.38	6.65	0.10
2037 Nov	Mean	96.15	110.96	0.03	0.01	0.68	0.05	0.11	0.10	0.01	28.63	0.33	0.54	9.98	0.47	1.28	0.12	0.009	0.005	0.19	0.54	10.09	0.041	0.021	0.21	0.01	27.57	0.004	2.39	0.73	0.21	6.35	2.27	26.72	1.51	0.18	161.89	0.03	0.445	0.013	2.11	0.38	6.97	0.09
2037 Dec	Mean	97.66	112.90	0.03	0.01	0.84	0.05	0.13	0.12	0.01	29.12	0.42	0.55	12.62	0.53	1.58	0.13	0.011	0.005	0.19	0.55	10.29	0.051	0.026	0.21	0.01	34.82	0.004	3.01	0.70	0.26	6.55	2.87	33.57	1.54	0.19	200.97	0.03	0.451	0.016	2.55	0.43	8.66	0.09
2038 Jan	Mean	96.39	111.59	0.03	0.01	0.94	0.05	0.14	0.14	0.01	28.77	0.47	0.55	14.29	0.56	1.77	0.13	0.012	0.005	0.19	0.55	10.19	0.058	0.029	0.21	0.01	39.37	0.004	3.39	0.66	0.29	6.55	3.25	37.79	1.53	0.18	225.19	0.03	0.444	0.017	2.81	0.46	9.73	0.09
2038 Feb	Mean	94.02	108.92	0.04	0.01	0.96	0.05	0.15	0.14	0.00	28.07	0.48	0.54	14.54	0.56	1.80	0.12	0.012	0.005	0.18	0.54	9.95	0.060	0.030	0.20	0.01	40.03	0.004	3.43	0.63	0.30	6.42	3.33	38.32	1.50	0.18	228.49	0.03	0.433	0.018	2.84	0.46	9.92	0.09
2038 Mar	Mean	91.02	105.44	0.03	0.01	0.92	0.05	0.14	0.13	0.00	27.18	0.46	0.52	13.91	0.54	1.73	0.12	0.012	0.005	0.18	0.53	9.63	0.057	0.029	0.19	0.01	38.26	0.004	3.27	0.61	0.29	6.21	3.20	36.53	1.45	0.17	218.64	0.03	0.419	0.017	2.73	0.44	9.54	0.08
2038 Apr	Mean	233.69	268.82	0.04	0.02	1.02	0.10	0.18	0.15	0.01	69.43	0.48	1.27	13.48	0.92	2.09	0.30	0.021	0.012	0.45	1.26	24.34	0.059	0.028	0.50	0.03	37.57	0.011	3.13	1.92	0.30	14.99	3.08	35.62	3.62	0.45	229.78	0.07	1.088	0.023	3.35	0.72	14.30	0.22
2038 May	Mean	4542.85	5208.71	0.35	0.29	7.94	1.53	1.77	1.29	0.25	1346.43	2.80	24.18	62.95	13.78	18.70	5.66	0.298	0.211	8.58	23.65	469.64	0.332	0.139	9.69	0.60	186.31	0.207	14.47	40.43	1.88	282.87	13.98	177.69	69.57	8.80	1521.69	1.35	21.272	0.255	32.66	10.27	168.05	4.25
2038 Jun	Mean	2167.78	2485.22	0.16	0.12	3.57	0.72	0.81	0.56	0.12	642.44	1.17	11.53	26.01	6.49	8.17	2.70	0.128	0.100	4.09	11.27	224.04	0.136	0.059	4.62	0.29	77.13	0.099	6.13	19.35	0.81	134.83	5.85	75.95	33.18	4.20	675.17	0.64	10.153	0.112	14.99	4.83	69.89	2.03
2038 Jul	Mean	229.36	263.56	0.03	0.02	0.80	0.09	0.14	0.12	0.01	68.09	0.35	1.24	9.65	0.83	1.64	0.29	0.017	0.011	0.44	1.22	23.83	0.043	0.020	0.49	0.03	26.96	0.010	2.23	1.94	0.23	14.58	2.23	25.63	3.54	0.44	173.29	0.07	1.070	0.019	2.71	0.64	11.34	0.21
2038 Aug	Mean	95.16	109.65	0.02	0.01	0.55	0.04	0.09	0.08	0.01	28.31	0.25	0.52	7.50	0.42	1.03	0.12	0.007	0.005	0.18	0.52	9.95	0.031	0.016	0.20	0.01	20.63	0.004	1.76	0.75	0.16	6.20	1.75	19.86	1.48	0.18	124.76	0.03	0.442	0.010	1.71	0.33	5.55	0.09
2038 Sep	Mean	95.31	109.90	0.02	0.01	0.60	0.04	0.10	0.08	0.01	28.37	0.28	0.53	8.33	0.44	1.12	0.12	0.008	0.005	0.18	0.53	9.98	0.035	0.017	0.20	0.01	22.90	0.004	1.95	0.74	0.18	6.25	1.94	21.99	1.49	0.18	136.97	0.03	0.442	0.011	1.84	0.35	6.07	0.09
2038 Oct	Mean	97.62	112.57	0.02	0.01	0.61	0.05	0.10	0.09	0.01	29.05	0.29	0.54	8.61	0.45	1.15	0.13	0.008	0.005	0.19	0.54	10.22	0.036	0.018	0.21	0.01	23.68	0.004	2.02	0.75	0.19	6.40	2.00	22.77	1.53	0.19	141.49	0.03	0.453	0.012	1.90	0.36	6.27	0.09
2038 Nov	Mean	96.37	111.22	0.03	0.01	0.68	0.05	0.11	0.10	0.01	28.70	0.32	0.54	9.69	0.47	1.27	0.12	0.009	0.005	0.19	0.54	10.11	0.040	0.020	0.21	0.01	26.66	0.004	2.27	0.73	0.21	6.37	2.25	25.58	1.51	0.18	157.31	0.03	0.446	0.013	2.07	0.38	6.90	0.09
2038 Dec	Mean	97.98	113.28	0.03	0.01	0.83	0.05	0.13	0.12	0.01	29.21	0.41	0.55	12.23	0.52	1.56	0.13	0.011	0.005	0.19	0.56	10.32	0.051	0.025	0.21	0.01	33.61	0.004	2.86	0.70	0.26	6.58	2.82	32.12	1.55	0.19	194.79	0.03	0.452	0.015	2.49	0.43	8.53	0.09
2039 Jan	Mean	96.76	112.03	0.03	0.01	0.93	0.05	0.14	0.13	0.01	28.88	0.46	0.55	13.92	0.55	1.75	0.13	0.012	0.005	0.19	0.56	10.23	0.058	0.029	0.21	0.01	38.23	0.004	3.25	0.66	0.29	6.57	3.21	36.43	1.54	0.18	219.40	0.03	0.446	0.017	2.76	0.46	9.62	0.09
2039 Feb	Mean	94.39	109.34	0.04	0.01	0.95	0.05	0.15	0.14	0.00	28.18	0.47	0.54	14.25	0.56	1.79	0.12	0.012	0.005	0.19	0.55	9.99	0.059	0.029	0.20	0.01	39.12	0.004	3.32	0.64	0.30	6.44	3.29	37.22	1.50	0.18	223.87	0.03	0.434	0.018	2.80	0.46	9.83	0.09
2039 Mar	Mean	91.25	105.70	0.03	0.01	0.91	0.05	0.14	0.13	0.00	27.25	0.46	0.52	13.66	0.54	1.72	0.12	0.012	0.005	0.18	0.53	9.66	0.057	0.028	0.20	0.01	37.50	0.004	3.18	0.62	0.29	6.23	3.16	35.64	1.45	0.17	214.74	0.03	0.420	0.017	2.69	0.44	9.45	0.08
2039 Apr	Mean	283.23	325.71	0.05	0.02	1.17	0.11	0.20	0.18	0.02	84.13	0.53	1.54	15.04	1.09	2.38	0.36	0.024	0.014	0.54	1.52	29.48	0.066	0.031	0.60	0.04	41.88	0.013	3.48	2.34	0.34	18.13	3.46	39.73	4.39	0.54	259.78	0.08	1.320	0.027	3.86	0.85	16.11	0.26
2039 May	Mean	4762.98	5461.33	0.37	0.31	8.46	1.60	1.87	1.37	0.26	1411.72	3.02	25.36	68.25	14.50	19.92	5.93	0.316	0.221	9.00	24.81	492.44	0.359	0.150	10.16	0.63	201.44	0.217	15.62	42.35	2.02	296.69	15.21	191.53	72.95	9.23	1627.47	1.41	22.301	0.270	34.60	10.81	178.40	4.46
2039 Jun	Mean	2288.86	2623.99	0.17	0.14	3.73	0.76	0.85	0.59	0.13	678.32	1.23	12.17	26.90	6.84	8.68	2.85	0.139	0.106	4.32	11.90	236.55	0.144	0.061	4.88	0.30	80.15	0.104	6.27	20.44	0.85	142.34	6.03	78.09	35.03	4.44	701.54	0.68	10.720	0.119	15.72	5.09	76.33	2.14
2039 Jul	Mean	182.29	209.50	0.03	0.01	0.66	0.07	0.12	0.09	0.01	54.12	0.28	0.99	7.92	0.67	1.27	0.23	0.012	0.009	0.35	0.97	18.95	0.034	0.017	0.39	0.03	21.95	0.008	1.86	1.53	0.18	11.60	1.86	21.28	2.82	0.35	142.98	0.05	0.850	0.014	2.21	0.52	7.63	0.17
2039 Aug	Mean	95.37	109.89	0.02	0.01	0.54	0.04	0.09	0.08	0.01	28.37	0.25	0.53	7.36	0.42	1.01	0.12	0.007	0.005	0.18	0.52	9.97	0.031	0.015	0.20	0.01	20.23	0.004	1.72	0.75	0.16	6.21	1.72	19.45	1.49	0.18	122.66	0.03	0.443	0.010	1.68	0.33	5.49	0.09
2039 Sep	Mean	93.90	108.25	0.02	0.0																																							

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2041 Jan	Mean	97.31	112.65	0.03	0.01	0.91	0.05	0.14	0.13	0.01	29.04	0.45	0.55	13.34	0.55	1.72	0.13	0.012	0.005	0.19	0.56	10.28	0.056	0.028	0.21	0.02	36.50	0.004	3.05	0.67	0.28	6.61	3.14	34.41	1.54	0.18	210.53	0.03	0.448	0.017	2.67	0.45	9.42	0.09
2041 Feb	Mean	94.91	109.94	0.03	0.01	0.93	0.05	0.14	0.13	0.00	28.34	0.46	0.54	13.64	0.55	1.75	0.13	0.012	0.005	0.19	0.55	10.04	0.058	0.028	0.20	0.01	37.30	0.004	3.11	0.64	0.29	6.48	3.22	35.07	1.51	0.18	214.52	0.03	0.437	0.017	2.71	0.45	9.63	0.09
2041 Mar	Mean	91.84	106.38	0.03	0.01	0.89	0.05	0.14	0.13	0.00	27.42	0.44	0.52	13.03	0.53	1.68	0.12	0.011	0.005	0.18	0.53	9.72	0.055	0.027	0.20	0.01	35.59	0.004	2.96	0.62	0.28	6.27	3.09	33.39	1.46	0.17	204.98	0.03	0.423	0.017	2.59	0.44	9.24	0.08
2041 Apr	Mean	395.13	454.43	0.06	0.03	1.62	0.16	0.28	0.24	0.02	117.37	0.73	2.15	20.26	1.52	3.32	0.50	0.034	0.019	0.76	2.13	41.14	0.091	0.043	0.84	0.06	56.18	0.018	4.54	3.26	0.47	25.31	4.77	52.35	6.12	0.76	350.15	0.12	1.841	0.037	5.26	1.18	22.94	0.37
2041 May	Mean	4954.49	5680.82	0.38	0.32	8.60	1.66	1.92	1.38	0.27	1468.46	3.01	26.38	65.91	15.01	20.36	6.17	0.327	0.230	9.36	25.80	512.22	0.360	0.146	10.57	0.66	194.60	0.226	14.63	44.07	2.03	308.57	15.03	182.46	75.88	9.60	1614.33	1.47	23.199	0.277	35.18	11.19	183.87	4.64
2041 Jun	Mean	1992.81	2284.67	0.14	0.12	3.25	0.66	0.74	0.51	0.11	590.59	1.05	10.60	22.67	5.96	7.49	2.48	0.118	0.092	3.76	10.36	205.97	0.124	0.052	4.25	0.26	67.12	0.091	5.14	17.78	0.74	123.97	5.26	64.87	30.51	3.86	600.20	0.59	9.333	0.103	13.58	4.43	64.71	1.87
2041 Jul	Mean	111.42	128.16	0.02	0.01	0.45	0.04	0.08	0.06	0.01	33.10	0.19	0.61	5.48	0.43	0.86	0.14	0.007	0.005	0.21	0.60	11.60	0.024	0.012	0.24	0.02	14.97	0.005	1.24	0.92	0.13	7.14	1.34	14.28	1.73	0.21	96.89	0.03	0.519	0.009	1.46	0.33	4.67	0.10
2041 Aug	Mean	95.95	110.55	0.02	0.01	0.52	0.04	0.09	0.07	0.01	28.54	0.24	0.53	6.76	0.41	0.98	0.12	0.007	0.005	0.18	0.53	10.03	0.029	0.014	0.20	0.01	18.42	0.004	1.51	0.75	0.15	6.25	1.65	17.33	1.50	0.18	113.47	0.03	0.446	0.010	1.59	0.33	5.28	0.09
2041 Sep	Mean	130.92	150.79	0.03	0.01	0.67	0.06	0.11	0.09	0.01	38.93	0.31	0.72	8.62	0.55	1.30	0.17	0.011	0.007	0.25	0.71	13.67	0.038	0.018	0.28	0.02	23.57	0.006	1.90	1.04	0.20	8.50	2.09	21.94	2.04	0.25	144.89	0.04	0.608	0.014	2.07	0.43	7.74	0.12
2041 Oct	Mean	124.89	143.85	0.02	0.01	0.64	0.05	0.11	0.09	0.01	37.14	0.29	0.69	8.33	0.53	1.24	0.16	0.010	0.006	0.24	0.68	13.05	0.037	0.018	0.27	0.02	22.76	0.006	1.85	0.99	0.19	8.11	2.02	21.27	1.95	0.24	140.05	0.04	0.580	0.013	1.99	0.42	7.23	0.12
2041 Nov	Mean	126.95	146.33	0.03	0.01	0.72	0.06	0.12	0.10	0.01	37.77	0.33	0.70	9.52	0.56	1.38	0.16	0.011	0.007	0.24	0.70	13.28	0.042	0.020	0.27	0.02	25.95	0.006	2.11	0.99	0.22	8.29	2.31	24.25	1.98	0.24	157.94	0.04	0.589	0.014	2.20	0.44	7.79	0.12
2041 Dec	Mean	99.14	114.61	0.03	0.01	0.79	0.05	0.12	0.11	0.01	29.56	0.38	0.56	11.01	0.51	1.49	0.13	0.010	0.005	0.19	0.56	10.44	0.048	0.023	0.21	0.02	29.94	0.004	2.44	0.71	0.24	6.65	2.67	27.84	1.57	0.19	176.02	0.03	0.458	0.015	2.30	0.42	8.12	0.09
2042 Jan	Mean	97.99	113.44	0.03	0.01	0.89	0.05	0.14	0.12	0.01	29.25	0.43	0.56	12.60	0.54	1.68	0.13	0.011	0.005	0.19	0.56	10.36	0.055	0.026	0.21	0.02	34.26	0.004	2.79	0.67	0.28	6.65	3.05	31.75	1.56	0.19	199.11	0.03	0.451	0.017	2.56	0.45	9.19	0.09
2042 Feb	Mean	95.59	110.73	0.03	0.01	0.91	0.05	0.14	0.13	0.01	28.54	0.44	0.55	12.93	0.54	1.72	0.13	0.012	0.005	0.19	0.55	10.11	0.056	0.027	0.20	0.01	35.13	0.004	2.85	0.64	0.28	6.52	3.13	32.50	1.52	0.18	203.47	0.03	0.440	0.017	2.60	0.45	9.40	0.09
2042 Mar	Mean	92.32	106.93	0.03	0.01	0.87	0.05	0.13	0.12	0.00	27.56	0.43	0.53	12.38	0.52	1.65	0.12	0.011	0.005	0.18	0.53	9.77	0.054	0.026	0.20	0.01	33.61	0.004	2.72	0.62	0.27	6.30	3.01	31.04	1.47	0.17	194.86	0.03	0.425	0.016	2.49	0.43	9.03	0.08
2042 Apr	Mean	293.45	337.32	0.04	0.02	1.06	0.11	0.19	0.15	0.02	87.13	0.46	1.59	12.48	1.08	2.17	0.37	0.023	0.014	0.56	1.57	30.51	0.058	0.027	0.63	0.04	34.48	0.013	2.74	2.45	0.30	18.71	3.01	31.97	4.54	0.56	222.63	0.09	1.368	0.025	3.50	0.84	14.78	0.27
2042 May	Mean	5180.77	5940.38	0.40	0.33	8.97	1.74	2.00	1.43	0.29	1535.55	3.11	27.59	67.13	15.69	21.20	6.45	0.340	0.240	9.79	26.98	535.64	0.373	0.150	11.05	0.69	197.64	0.236	14.55	46.06	2.11	322.72	15.62	183.55	79.35	10.03	1660.30	1.54	24.257	0.289	36.52	11.69	190.86	4.85
2042 Jun	Mean	2155.74	2471.33	0.15	0.13	3.41	0.71	0.79	0.54	0.12	638.86	1.09	11.46	22.55	6.41	8.02	2.68	0.131	0.100	4.07	11.20	222.78	0.129	0.052	4.60	0.29	67.30	0.098	4.97	19.26	0.76	134.04	5.26	63.97	32.99	4.18	616.72	0.64	10.097	0.111	14.35	4.76	71.75	2.02
2042 Jul	Mean	167.01	191.98	0.02	0.01	0.60	0.06	0.11	0.08	0.01	49.59	0.26	0.91	6.94	0.61	1.20	0.21	0.012	0.008	0.32	0.89	17.37	0.032	0.015	0.36	0.02	19.06	0.008	1.52	1.40	0.17	10.65	1.70	17.79	2.58	0.32	125.03	0.05	0.779	0.013	1.97	0.47	7.56	0.16
2042 Aug	Mean	96.00	110.63	0.02	0.01	0.52	0.04	0.09	0.07	0.01	28.56	0.24	0.53	6.66	0.41	0.98	0.12	0.007	0.005	0.18	0.53	10.04	0.030	0.014	0.21	0.01	18.05	0.004	1.45	0.75	0.15	6.26	1.65	16.78	1.50	0.18	111.67	0.03	0.446	0.010	1.58	0.33	5.29	0.09
2042 Sep	Mean	94.57	109.04	0.02	0.01	0.56	0.04	0.09	0.07	0.01	28.14	0.25	0.52	7.22	0.42	1.05	0.12	0.008	0.005	0.18	0.52	9.90	0.032	0.015	0.20	0.01	19.56	0.004	1.57	0.73	0.17	6.20	1.79	18.13	1.48	0.18	119.63	0.03	0.439	0.011	1.66	0.34	5.65	0.09
2042 Oct	Mean	114.55	131.95	0.02	0.01	0.59	0.05	0.10	0.08	0.01	34.07	0.27	0.63	7.52	0.48	1.12	0.15	0.008	0.006	0.22	0.63	11.97	0.033	0.016	0.24	0.02	20.41	0.005	1.64	0.91	0.18	7.45	1.86	19.01	1.79	0.22	126.94	0.03	0.532	0.012	1.81	0.38	6.10	0.11
2042 Nov	Mean	97.66	112.67	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.07	0.29	0.54	8.15	0.45	1.16	0.13	0.008	0.005	0.19	0.54	10.24	0.036	0.017	0.21	0.01	22.10	0.004	1.78	0.74	0.19	6.43	2.01	20.49	1.53	0.19	133.74	0.03	0.452	0.012	1.83	0.36	6.28	0.09
2042 Dec	Mean	99.51	115.02	0.03	0.01	0.77	0.05	0.12	0.10	0.01	29.67	0.37	0.56	10.57	0.51	1.46	0.13	0.010	0.005	0.19	0.56	10.48	0.046	0.022	0.21	0.02	28.65	0.004	2.30	0.72	0.24	6.67	2.60	26.43	1.57	0.19	169.34	0.03	0.460	0.014	2.23	0.41	7.92	0.09
2043 Jan	Mean	98.40	113.91	0.03	0.01	0.87	0.05	0.14	0.12	0.01	29.37	0.42	0.56	12.24	0.54	1.65	0.13	0.011	0.005	0.19	0.57	10.40	0.054	0.026	0.21	0.02	33.17	0.004	2.67	0.68	0.27	6.68	3.00	30.51	1.56	0.19	193.52	0.03	0.453	0.016	2.50	0.44	9.05	0.09
2043 Feb	Mean	95.95	111.14	0.03	0.01	0.90	0.05	0.14	0.12	0.01	28.65	0.44	0.55	12.63	0.54	1.70	0.13	0.011	0.005	0.19	0.55	10.15	0.055	0.027	0.21	0.01	34.23	0.004	2.75	0.65	0.28	6.55	3.10	31.44	1.53	0.18	198.87	0.03	0.442	0.017	2.55	0.45	9.30	0.09
2043 Mar	Mean	92.61	107.28	0																																								

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2044 Jul	Mean	160.36	184.28	0.02	0.01	0.53	0.06	0.10	0.07	0.01	47.61	0.22	0.87	5.83	0.57	1.05	0.20	0.010	0.008	0.31	0.86	16.66	0.027	0.013	0.34	0.02	15.95	0.007	1.25	1.35	0.15	10.20	1.46	14.86	2.48	0.31	108.03	0.05	0.748	0.012	1.76	0.44	6.46	0.15
2044 Aug	Mean	96.24	110.89	0.02	0.01	0.51	0.04	0.08	0.07	0.01	28.63	0.23	0.53	6.30	0.41	0.95	0.12	0.007	0.005	0.19	0.53	10.06	0.028	0.014	0.21	0.01	17.03	0.004	1.35	0.76	0.15	6.27	1.59	15.69	1.50	0.18	106.31	0.03	0.447	0.010	1.52	0.32	5.13	0.09
2044 Sep	Mean	100.53	115.88	0.02	0.01	0.56	0.04	0.09	0.07	0.01	29.91	0.25	0.56	7.07	0.44	1.06	0.13	0.008	0.005	0.19	0.55	10.52	0.032	0.015	0.21	0.01	19.10	0.005	1.51	0.78	0.17	6.57	1.78	17.54	1.57	0.19	118.10	0.03	0.466	0.011	1.67	0.35	5.73	0.09
2044 Oct	Mean	96.84	111.65	0.02	0.01	0.55	0.04	0.09	0.07	0.01	28.82	0.25	0.54	7.02	0.42	1.04	0.12	0.008	0.005	0.19	0.53	10.14	0.032	0.015	0.21	0.01	18.95	0.004	1.50	0.75	0.17	6.34	1.77	17.41	1.51	0.19	116.79	0.03	0.449	0.011	1.64	0.34	5.63	0.09
2044 Nov	Mean	97.88	112.94	0.02	0.01	0.62	0.05	0.10	0.08	0.01	29.14	0.28	0.54	8.01	0.45	1.16	0.13	0.008	0.005	0.19	0.54	10.27	0.036	0.017	0.21	0.01	21.64	0.004	1.71	0.74	0.19	6.46	2.01	19.85	1.53	0.19	131.53	0.03	0.453	0.012	1.81	0.36	6.28	0.09
2044 Dec	Mean	99.77	115.34	0.03	0.01	0.77	0.05	0.12	0.10	0.01	29.75	0.36	0.56	10.34	0.51	1.45	0.13	0.010	0.005	0.19	0.57	10.51	0.046	0.022	0.21	0.02	27.92	0.005	2.21	0.72	0.24	6.69	2.58	25.48	1.58	0.19	165.72	0.03	0.461	0.014	2.20	0.41	7.89	0.09
2045 Jan	Mean	98.64	114.20	0.03	0.01	0.87	0.05	0.13	0.12	0.01	29.44	0.42	0.56	11.89	0.54	1.64	0.13	0.011	0.005	0.19	0.57	10.42	0.053	0.025	0.21	0.02	32.09	0.004	2.53	0.68	0.27	6.70	2.96	29.20	1.57	0.19	188.06	0.03	0.454	0.016	2.45	0.44	8.96	0.09
2045 Feb	Mean	96.28	111.52	0.03	0.01	0.89	0.05	0.14	0.12	0.01	28.75	0.43	0.55	12.23	0.54	1.68	0.13	0.011	0.005	0.19	0.56	10.19	0.055	0.026	0.21	0.02	33.01	0.004	2.60	0.65	0.28	6.57	3.05	29.98	1.53	0.18	192.66	0.03	0.443	0.016	2.49	0.44	9.18	0.09
2045 Mar	Mean	92.99	107.72	0.03	0.01	0.85	0.05	0.13	0.11	0.00	27.77	0.41	0.53	11.74	0.52	1.61	0.12	0.011	0.005	0.18	0.54	9.84	0.052	0.025	0.20	0.01	31.66	0.004	2.49	0.63	0.27	6.34	2.93	28.73	1.48	0.18	184.95	0.03	0.428	0.016	2.39	0.43	8.83	0.09
2045 Apr	Mean	330.97	380.56	0.05	0.03	1.25	0.13	0.22	0.18	0.02	98.30	0.54	1.80	14.46	1.23	2.55	0.42	0.026	0.016	0.63	1.78	34.44	0.068	0.031	0.71	0.05	39.71	0.015	3.06	2.75	0.36	21.16	3.58	36.12	5.12	0.64	255.81	0.10	1.542	0.029	4.01	0.96	17.35	0.31
2045 May	Mean	5328.55	6109.53	0.40	0.34	8.91	1.78	2.02	1.41	0.30	1579.29	3.02	28.36	62.69	16.03	21.22	6.63	0.346	0.247	10.06	27.74	550.86	0.363	0.142	11.37	0.71	185.12	0.243	13.19	47.43	2.07	331.77	14.89	169.90	81.60	10.32	1611.99	1.58	24.951	0.292	36.54	11.92	192.96	4.99
2045 Jun	Mean	2396.06	2747.00	0.17	0.14	3.84	0.79	0.88	0.58	0.13	710.11	1.21	12.75	24.93	7.14	8.81	2.98	0.139	0.111	4.52	12.46	247.65	0.143	0.058	5.11	0.32	73.54	0.109	5.40	21.37	0.86	149.06	6.04	70.05	36.68	4.64	686.84	0.71	11.221	0.121	15.97	5.30	75.61	2.24
2045 Jul	Mean	181.36	208.47	0.02	0.01	0.63	0.07	0.11	0.09	0.01	53.85	0.26	0.98	6.88	0.66	1.26	0.23	0.013	0.009	0.35	0.97	18.86	0.033	0.015	0.39	0.03	18.77	0.008	1.43	1.52	0.18	11.56	1.75	17.09	2.80	0.35	125.41	0.05	0.846	0.014	2.04	0.51	8.16	0.17
2045 Aug	Mean	96.56	111.26	0.02	0.01	0.50	0.04	0.08	0.06	0.01	28.72	0.22	0.53	6.09	0.41	0.94	0.12	0.007	0.005	0.19	0.53	10.10	0.028	0.013	0.21	0.01	16.41	0.004	1.28	0.76	0.15	6.29	1.56	14.98	1.51	0.18	103.14	0.03	0.448	0.010	1.49	0.32	5.04	0.09
2045 Sep	Mean	94.93	109.47	0.02	0.01	0.54	0.04	0.09	0.07	0.01	28.25	0.24	0.53	6.80	0.42	1.02	0.12	0.007	0.005	0.18	0.52	9.94	0.031	0.015	0.20	0.01	18.28	0.004	1.42	0.73	0.16	6.23	1.74	16.61	1.49	0.18	113.06	0.03	0.440	0.010	1.60	0.33	5.52	0.09
2045 Oct	Mean	109.38	126.06	0.02	0.01	0.58	0.05	0.10	0.08	0.01	32.54	0.26	0.60	7.22	0.47	1.11	0.14	0.008	0.006	0.21	0.60	11.44	0.033	0.016	0.23	0.02	19.45	0.005	1.51	0.86	0.17	7.14	1.85	17.73	1.71	0.21	121.41	0.03	0.508	0.011	1.74	0.37	6.01	0.10
2045 Nov	Mean	112.96	130.27	0.02	0.01	0.66	0.05	0.11	0.09	0.01	33.62	0.30	0.63	8.29	0.50	1.25	0.15	0.009	0.006	0.22	0.62	11.83	0.038	0.018	0.24	0.02	22.32	0.005	1.73	0.87	0.20	7.41	2.11	20.26	1.77	0.22	137.28	0.03	0.524	0.013	1.93	0.40	6.89	0.10
2045 Dec	Mean	100.09	115.70	0.03	0.01	0.76	0.05	0.12	0.10	0.01	29.84	0.36	0.56	10.01	0.50	1.43	0.13	0.010	0.005	0.19	0.57	10.54	0.045	0.021	0.21	0.02	26.92	0.005	2.09	0.72	0.23	6.71	2.54	24.31	1.58	0.19	160.57	0.03	0.462	0.014	2.15	0.41	7.78	0.09
2046 Jan	Mean	99.04	114.65	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.56	0.41	0.56	11.53	0.54	1.62	0.13	0.011	0.006	0.19	0.57	10.47	0.052	0.024	0.21	0.02	31.00	0.004	2.41	0.68	0.27	6.72	2.92	27.91	1.57	0.19	182.51	0.03	0.456	0.016	2.39	0.44	8.84	0.09
2046 Feb	Mean	96.59	111.88	0.03	0.01	0.87	0.05	0.14	0.12	0.01	28.84	0.42	0.55	11.87	0.54	1.66	0.13	0.011	0.005	0.19	0.56	10.22	0.054	0.025	0.21	0.02	31.90	0.004	2.47	0.65	0.27	6.59	3.00	28.68	1.54	0.18	187.02	0.03	0.444	0.016	2.43	0.44	9.06	0.09
2046 Mar	Mean	93.29	108.05	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.85	0.40	0.53	11.38	0.52	1.59	0.12	0.011	0.005	0.18	0.54	9.87	0.052	0.024	0.20	0.01	30.58	0.004	2.37	0.63	0.26	6.36	2.89	27.46	1.48	0.18	179.42	0.03	0.429	0.016	2.34	0.42	8.72	0.09
2046 Apr	Mean	389.34	447.25	0.05	0.03	1.18	0.15	0.22	0.17	0.02	115.55	0.49	2.10	12.41	1.35	2.48	0.49	0.029	0.019	0.74	2.07	40.42	0.061	0.027	0.83	0.05	34.28	0.018	2.58	3.31	0.32	24.67	3.11	30.96	6.00	0.75	233.02	0.12	1.817	0.029	3.97	1.04	17.96	0.36
2046 May	Mean	4402.47	5048.17	0.33	0.28	7.59	1.48	1.70	1.18	0.24	1304.90	2.58	23.45	54.35	13.32	17.79	5.48	0.282	0.204	8.32	22.94	455.21	0.311	0.123	9.39	0.59	158.92	0.201	11.30	39.11	1.78	274.34	13.17	145.53	67.44	8.53	1371.85	1.31	20.612	0.242	30.65	9.92	157.56	4.12
2046 Jun	Mean	2662.39	3052.18	0.19	0.16	4.15	0.88	0.97	0.65	0.15	789.01	1.31	14.16	26.01	7.90	9.82	3.31	0.162	0.123	5.03	13.84	275.15	0.156	0.061	5.68	0.35	77.51	0.121	5.46	23.78	0.92	165.55	6.28	72.17	40.75	5.16	732.44	0.79	12.470	0.137	17.43	5.86	88.32	2.49
2046 Jul	Mean	147.47	169.53	0.02	0.01	0.52	0.06	0.09	0.07	0.01	43.79	0.21	0.80	5.57	0.53	1.00	0.19	0.009	0.007	0.28	0.79	15.34	0.026	0.012	0.31	0.02	15.09	0.007	1.15	1.23	0.14	9.41	1.44	13.81	2.28	0.28	102.31	0.04	0.687	0.011	1.66	0.41	5.93	0.14
2046 Aug	Mean	98.81	113.85	0.02	0.01	0.51	0.04	0.08	0.06	0.01	29.39	0.22	0.54	6.09	0.41	0.96	0.13	0.007	0.005	0.19	0.54	10.33	0.028	0.013	0.21	0.01	16.35	0.004	1.25	0.78	0.15	6.44	1.59	14.77	1.54	0.19	103.27	0.03	0.459	0.010	1.50	0.33	5.15	0.09
2046 Sep	Mean	102.47	118.11																																									

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2048 Jan	Mean	99.44	115.11	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.68	0.40	0.56	11.08	0.53	1.59	0.13	0.011	0.006	0.19	0.57	10.51	0.051	0.024	0.21	0.02	29.66	0.004	2.26	0.69	0.26	6.75	2.85	26.39	1.58	0.19	175.59	0.03	0.458	0.016	2.32	0.43	8.66	0.09
2048 Feb	Mean	96.97	112.32	0.03	0.01	0.86	0.05	0.13	0.11	0.01	28.95	0.41	0.55	11.51	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.26	0.053	0.024	0.21	0.02	30.81	0.004	2.35	0.65	0.27	6.62	2.96	27.40	1.54	0.18	181.42	0.03	0.446	0.016	2.38	0.44	8.94	0.09
2048 Mar	Mean	93.63	108.45	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.96	0.40	0.53	11.13	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.91	0.051	0.024	0.20	0.01	29.81	0.004	2.27	0.63	0.26	6.39	2.87	26.49	1.49	0.18	175.50	0.03	0.431	0.016	2.30	0.42	8.66	0.09
2048 Apr	Mean	501.59	576.46	0.07	0.04	1.67	0.19	0.31	0.24	0.03	148.92	0.72	2.71	18.20	1.80	3.54	0.63	0.040	0.024	0.96	2.68	52.13	0.091	0.039	1.07	0.07	50.04	0.023	3.69	4.22	0.47	31.92	4.59	44.36	7.75	0.97	330.52	0.15	2.339	0.041	5.46	1.39	26.03	0.47
2048 May	Mean	5095.25	5841.98	0.37	0.33	8.40	1.70	1.91	1.33	0.28	1510.14	2.83	27.12	57.08	15.29	20.21	6.34	0.335	0.236	9.62	26.52	526.72	0.341	0.130	10.87	0.68	168.84	0.232	11.62	45.36	1.95	317.21	13.76	152.28	78.02	9.87	1493.78	1.51	23.859	0.279	34.45	11.37	186.61	4.77
2048 Jun	Mean	2293.38	2629.09	0.16	0.14	3.53	0.76	0.82	0.55	0.13	679.64	1.11	12.19	21.54	6.79	8.38	2.85	0.139	0.106	4.33	11.92	237.00	0.131	0.051	4.89	0.30	64.38	0.105	4.48	20.49	0.78	142.58	5.23	59.76	35.10	4.44	617.85	0.68	10.742	0.117	14.87	5.03	75.80	2.15
2048 Jul	Mean	147.03	168.99	0.02	0.01	0.50	0.06	0.09	0.06	0.01	43.65	0.20	0.80	5.23	0.53	0.97	0.19	0.009	0.007	0.28	0.79	15.29	0.025	0.012	0.31	0.02	14.17	0.007	1.07	1.23	0.14	9.37	1.37	12.91	2.27	0.28	97.21	0.04	0.686	0.011	1.60	0.41	5.79	0.14
2048 Aug	Mean	106.29	122.44	0.02	0.01	0.52	0.06	0.09	0.07	0.01	31.61	0.23	0.58	6.17	0.44	0.99	0.14	0.007	0.005	0.20	0.58	11.11	0.029	0.013	0.23	0.02	16.53	0.005	1.25	0.84	0.15	6.91	1.62	14.89	1.66	0.20	105.39	0.03	0.494	0.010	1.55	0.34	5.34	0.10
2048 Sep	Mean	118.88	136.94	0.02	0.01	0.58	0.05	0.10	0.08	0.01	35.35	0.26	0.65	6.89	0.49	1.12	0.15	0.009	0.006	0.23	0.65	12.42	0.033	0.015	0.25	0.02	18.51	0.005	1.39	0.94	0.17	7.72	1.80	16.53	1.85	0.23	117.19	0.04	0.552	0.012	1.73	0.39	6.44	0.11
2048 Oct	Mean	111.32	128.32	0.02	0.01	0.60	0.05	0.10	0.08	0.01	33.12	0.26	0.61	7.22	0.48	1.13	0.14	0.008	0.006	0.21	0.61	11.65	0.034	0.016	0.24	0.02	19.33	0.005	1.47	0.87	0.18	7.28	1.88	17.34	1.74	0.21	121.18	0.03	0.517	0.012	1.75	0.38	6.20	0.10
2048 Nov	Mean	98.72	113.91	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.39	0.27	0.55	7.51	0.45	1.14	0.13	0.008	0.005	0.19	0.55	10.35	0.035	0.016	0.21	0.01	20.12	0.004	1.53	0.75	0.18	6.51	1.95	18.04	1.55	0.19	123.81	0.03	0.457	0.011	1.74	0.36	6.12	0.09
2048 Dec	Mean	100.52	116.20	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.97	0.35	0.57	9.71	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.59	0.045	0.021	0.21	0.02	26.01	0.005	1.98	0.72	0.23	6.74	2.51	23.20	1.59	0.19	155.97	0.03	0.464	0.014	2.10	0.41	7.70	0.09
2049 Jan	Mean	99.42	115.09	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.67	0.40	0.57	11.20	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.51	0.052	0.024	0.21	0.02	29.98	0.004	2.28	0.68	0.26	6.75	2.88	26.69	1.58	0.19	177.30	0.03	0.458	0.016	2.34	0.44	8.74	0.09
2049 Feb	Mean	96.90	112.25	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.93	0.41	0.55	11.55	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.25	0.053	0.025	0.21	0.02	30.93	0.004	2.36	0.65	0.27	6.61	2.97	27.52	1.54	0.18	182.06	0.03	0.446	0.016	2.39	0.44	8.97	0.09
2049 Mar	Mean	93.54	108.35	0.03	0.01	0.83	0.05	0.13	0.11	0.00	27.93	0.40	0.53	11.13	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.90	0.051	0.024	0.20	0.01	29.81	0.004	2.27	0.63	0.26	6.38	2.86	26.52	1.49	0.18	175.51	0.03	0.430	0.016	2.30	0.42	8.65	0.09
2049 Apr	Mean	365.15	419.71	0.05	0.03	1.24	0.14	0.23	0.17	0.02	108.42	0.52	1.98	13.52	1.32	2.55	0.46	0.027	0.018	0.70	1.95	37.96	0.066	0.029	0.78	0.05	36.95	0.017	2.77	3.06	0.35	23.26	3.45	33.21	5.64	0.70	246.47	0.11	1.703	0.029	4.04	1.02	17.26	0.34
2049 May	Mean	4899.39	5617.47	0.36	0.31	8.11	1.63	1.84	1.28	0.27	1452.10	2.73	26.08	55.39	14.72	19.48	6.10	0.321	0.227	9.25	25.50	506.49	0.330	0.126	10.45	0.65	163.64	0.223	11.28	43.61	1.88	305.05	13.37	147.72	75.02	9.49	1444.19	1.45	22.942	0.269	33.22	10.94	179.26	4.59
2049 Jun	Mean	2312.30	2650.88	0.16	0.13	3.62	0.76	0.84	0.55	0.13	685.27	1.12	12.30	22.37	6.86	8.42	2.88	0.136	0.107	4.37	12.02	238.97	0.133	0.053	4.93	0.31	66.31	0.105	4.70	20.64	0.80	143.80	5.49	62.25	35.39	4.48	635.50	0.69	10.830	0.117	15.13	5.09	73.84	2.17
2049 Jul	Mean	98.81	113.69	0.02	0.01	0.40	0.04	0.07	0.05	0.01	29.36	0.17	0.54	4.51	0.38	0.76	0.13	0.006	0.005	0.19	0.53	10.30	0.021	0.010	0.21	0.01	12.11	0.004	0.93	0.81	0.11	6.35	1.18	11.04	1.53	0.19	80.24	0.03	0.460	0.008	1.24	0.29	4.07	0.09
2049 Aug	Mean	96.58	111.30	0.02	0.01	0.50	0.04	0.08	0.06	0.01	28.73	0.22	0.53	5.93	0.40	0.94	0.12	0.007	0.005	0.19	0.53	10.10	0.028	0.013	0.21	0.01	15.87	0.004	1.21	0.76	0.15	6.30	1.55	14.27	1.51	0.18	100.44	0.03	0.448	0.010	1.46	0.32	5.02	0.09
2049 Sep	Mean	95.23	109.80	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.34	0.24	0.53	6.44	0.41	1.00	0.12	0.007	0.005	0.18	0.53	9.97	0.030	0.014	0.20	0.01	17.24	0.004	1.31	0.74	0.16	6.24	1.68	15.45	1.49	0.18	107.68	0.03	0.442	0.010	1.54	0.33	5.37	0.09
2049 Oct	Mean	146.72	168.99	0.03	0.01	0.71	0.06	0.12	0.09	0.01	43.63	0.31	0.81	8.50	0.60	1.38	0.19	0.011	0.007	0.28	0.80	15.33	0.040	0.018	0.31	0.02	22.87	0.007	1.73	1.16	0.21	9.53	2.21	20.51	2.29	0.28	144.59	0.04	0.682	0.015	2.14	0.47	7.99	0.14
2049 Nov	Mean	98.48	113.62	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.32	0.27	0.55	7.45	0.44	1.13	0.13	0.008	0.005	0.19	0.55	10.33	0.035	0.016	0.21	0.01	19.96	0.004	1.52	0.75	0.18	6.49	1.93	17.92	1.54	0.19	122.90	0.03	0.456	0.011	1.72	0.36	6.06	0.09
2049 Dec	Mean	100.29	115.92	0.03	0.01	0.74	0.05	0.12	0.10	0.01	29.90	0.35	0.56	9.64	0.50	1.41	0.13	0.010	0.005	0.20	0.57	10.56	0.044	0.021	0.21	0.02	25.82	0.005	1.97	0.72	0.23	6.72	2.49	23.07	1.58	0.19	154.91	0.03	0.463	0.014	2.09	0.40	7.63	0.09
2050 Jan	Mean	99.32	114.98	0.03	0.01	0.84	0.05	0.13	0.11	0.01	29.64	0.40	0.56	11.19	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.49	0.051	0.024	0.21	0.02	29.97	0.004	2.29	0.68	0.26	6.74	2.88	26.71	1.58	0.19	177.22	0.03	0.458	0.016	2.34	0.43	8.72	0.09
2050 Feb	Mean	96.92	112.26	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.94	0.41	0.55	11.56	0.53	1.64	0.13	0.011	0.005	0.19	0.56	10.25	0.053	0.025	0.21	0.02	30.97	0.004	2.36	0.65	0.27	6.61	2.97	27.58	1.54	0.18	182.27	0.03	0.446	0.016	2.39	0.44	8.96	0.09
2050 Mar	Mean	93.54	108.34	0.0																																								

Table A-10
Monthly WQ Report for Scenario A.3.b - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 50th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	119.04	136.91	0.02	0.01	0.45	0.05	0.08	0.06	0.01	35.36	0.19	0.65	5.01	0.44	0.86	0.15	0.007	0.006	0.23	0.64	12.39	0.024	0.011	0.25	0.02	13.49	0.005	1.03	0.98	0.13	7.63	1.31	12.34	1.84	0.23	90.43	0.04	0.554	0.009	1.43	0.35	4.76	0.11
2051 Aug	Mean	98.44	113.43	0.02	0.01	0.50	0.04	0.08	0.06	0.01	29.28	0.22	0.54	6.00	0.41	0.95	0.13	0.007	0.005	0.19	0.54	10.29	0.028	0.013	0.21	0.01	16.09	0.004	1.23	0.77	0.15	6.41	1.57	14.50	1.54	0.19	101.85	0.03	0.457	0.010	1.49	0.33	5.09	0.09
2051 Sep	Mean	181.78	209.11	0.03	0.01	0.72	0.07	0.13	0.10	0.01	54.01	0.31	0.99	8.15	0.69	1.44	0.23	0.014	0.009	0.35	0.98	18.93	0.039	0.018	0.39	0.03	22.10	0.008	1.65	1.49	0.21	11.67	2.10	19.74	2.82	0.35	143.55	0.05	0.846	0.016	2.25	0.54	9.25	0.17
2051 Oct	Mean	95.29	109.87	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.36	0.24	0.53	6.52	0.41	1.00	0.12	0.007	0.005	0.18	0.53	9.98	0.030	0.014	0.20	0.01	17.48	0.004	1.33	0.74	0.16	6.24	1.70	15.74	1.49	0.18	108.97	0.03	0.442	0.010	1.56	0.33	5.40	0.09
2051 Nov	Mean	98.12	113.21	0.02	0.01	0.60	0.05	0.10	0.08	0.01	29.21	0.27	0.55	7.55	0.45	1.14	0.13	0.008	0.005	0.19	0.55	10.29	0.035	0.016	0.21	0.01	20.24	0.004	1.55	0.74	0.18	6.47	1.95	18.21	1.54	0.19	124.35	0.03	0.455	0.011	1.74	0.36	6.12	0.09
2051 Dec	Mean	100.29	115.93	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.90	0.35	0.56	9.76	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.56	0.045	0.021	0.21	0.02	26.17	0.005	2.01	0.72	0.23	6.72	2.51	23.43	1.58	0.19	156.75	0.03	0.463	0.014	2.11	0.41	7.69	0.09
2052 Jan	Mean	99.25	114.90	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.62	0.40	0.56	11.29	0.53	1.60	0.13	0.011	0.006	0.19	0.57	10.49	0.052	0.024	0.21	0.02	30.26	0.004	2.32	0.68	0.26	6.74	2.89	27.04	1.58	0.19	178.70	0.03	0.457	0.016	2.35	0.44	8.76	0.09
2052 Feb	Mean	96.80	112.12	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.90	0.42	0.55	11.67	0.54	1.65	0.13	0.011	0.005	0.19	0.56	10.24	0.053	0.025	0.21	0.02	31.29	0.004	2.40	0.65	0.27	6.61	2.98	27.95	1.54	0.18	183.89	0.03	0.445	0.016	2.40	0.44	9.00	0.09
2052 Mar	Mean	93.46	108.25	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.90	0.40	0.53	11.26	0.52	1.59	0.12	0.011	0.005	0.18	0.54	9.89	0.052	0.024	0.20	0.01	30.19	0.004	2.32	0.63	0.26	6.38	2.88	26.96	1.49	0.18	177.45	0.03	0.430	0.016	2.32	0.42	8.69	0.09
2052 Apr	Mean	253.36	291.43	0.04	0.02	1.01	0.10	0.18	0.14	0.01	75.27	0.44	1.38	11.67	0.96	2.06	0.32	0.021	0.013	0.48	1.37	26.39	0.056	0.025	0.54	0.04	31.86	0.012	2.40	2.08	0.29	16.25	2.95	28.49	3.93	0.49	203.95	0.08	1.180	0.023	3.17	0.75	13.99	0.24
2052 May	Mean	5205.96	5969.05	0.39	0.33	8.70	1.74	1.97	1.38	0.29	1542.97	2.95	27.71	60.36	15.66	20.87	6.48	0.343	0.241	9.83	27.10	538.20	0.357	0.137	11.10	0.69	178.21	0.237	12.38	46.32	2.03	324.18	14.49	161.17	79.72	10.08	1556.49	1.54	24.377	0.287	35.53	11.65	191.94	4.88
2052 Jun	Mean	2370.12	2717.13	0.17	0.14	3.70	0.78	0.86	0.57	0.13	702.40	1.16	12.60	23.02	7.03	8.69	2.95	0.142	0.110	4.47	12.32	244.94	0.138	0.054	5.06	0.31	68.47	0.108	4.84	21.16	0.82	147.39	5.59	64.00	36.28	4.59	651.20	0.70	11.101	0.121	15.51	5.21	77.36	2.22
2052 Jul	Mean	229.00	263.07	0.03	0.02	0.69	0.09	0.13	0.10	0.01	67.97	0.28	1.24	7.13	0.79	1.42	0.29	0.016	0.011	0.44	1.22	23.78	0.035	0.016	0.49	0.03	19.55	0.010	1.46	1.95	0.19	14.52	1.82	17.67	3.53	0.44	135.07	0.07	1.069	0.017	2.31	0.61	9.81	0.21
2052 Aug	Mean	96.45	111.15	0.02	0.01	0.50	0.04	0.08	0.06	0.01	28.69	0.22	0.53	6.06	0.41	0.95	0.12	0.007	0.005	0.19	0.53	10.09	0.028	0.013	0.21	0.01	16.24	0.004	1.24	0.76	0.15	6.29	1.58	14.66	1.51	0.18	102.36	0.03	0.448	0.010	1.48	0.32	5.09	0.09
2052 Sep	Mean	101.36	116.85	0.02	0.01	0.55	0.04	0.09	0.07	0.01	30.16	0.25	0.56	6.77	0.44	1.05	0.13	0.008	0.005	0.20	0.56	10.61	0.031	0.015	0.22	0.01	18.16	0.005	1.39	0.79	0.16	6.63	1.76	16.34	1.58	0.19	113.38	0.03	0.470	0.011	1.63	0.35	5.71	0.09
2052 Oct	Mean	95.34	109.92	0.02	0.01	0.53	0.04	0.09	0.07	0.01	28.37	0.24	0.53	6.54	0.41	1.00	0.12	0.007	0.005	0.18	0.53	9.98	0.030	0.014	0.20	0.01	17.53	0.004	1.34	0.74	0.16	6.25	1.69	15.82	1.49	0.18	109.22	0.03	0.442	0.010	1.56	0.33	5.39	0.09
2052 Nov	Mean	98.25	113.37	0.02	0.01	0.61	0.05	0.10	0.08	0.01	29.25	0.28	0.55	7.66	0.45	1.15	0.13	0.008	0.005	0.19	0.55	10.31	0.035	0.016	0.21	0.01	20.55	0.004	1.58	0.74	0.18	6.48	1.98	18.52	1.54	0.19	126.01	0.03	0.455	0.012	1.76	0.36	6.18	0.09
2052 Dec	Mean	100.17	115.79	0.03	0.01	0.75	0.05	0.12	0.10	0.01	29.86	0.35	0.56	9.81	0.50	1.42	0.13	0.010	0.005	0.20	0.57	10.55	0.045	0.021	0.21	0.02	26.32	0.005	2.02	0.72	0.23	6.71	2.51	23.61	1.58	0.19	157.50	0.03	0.463	0.014	2.12	0.41	7.70	0.09
2053 Jan	Mean	99.16	114.79	0.03	0.01	0.85	0.05	0.13	0.11	0.01	29.59	0.40	0.56	11.33	0.53	1.61	0.13	0.011	0.006	0.19	0.57	10.48	0.052	0.024	0.21	0.02	30.40	0.004	2.34	0.68	0.26	6.73	2.89	27.22	1.57	0.19	179.42	0.03	0.457	0.016	2.36	0.44	8.77	0.09
2053 Feb	Mean	96.69	112.00	0.03	0.01	0.87	0.05	0.13	0.11	0.01	28.87	0.42	0.55	11.71	0.54	1.65	0.13	0.011	0.005	0.19	0.56	10.23	0.053	0.025	0.21	0.02	31.43	0.004	2.42	0.65	0.27	6.60	2.99	28.12	1.54	0.18	184.58	0.03	0.445	0.016	2.41	0.44	9.01	0.09
2053 Mar	Mean	93.37	108.15	0.03	0.01	0.84	0.05	0.13	0.11	0.00	27.88	0.40	0.53	11.24	0.52	1.58	0.12	0.011	0.005	0.18	0.54	9.88	0.051	0.024	0.20	0.01	30.17	0.004	2.32	0.63	0.26	6.37	2.87	27.00	1.49	0.18	177.30	0.03	0.430	0.016	2.32	0.42	8.66	0.09
2053 Apr	Mean	473.89	544.64	0.06	0.04	1.60	0.18	0.29	0.23	0.03	140.70	0.70	2.56	17.71	1.71	3.43	0.60	0.040	0.023	0.90	2.53	49.26	0.088	0.038	1.01	0.07	48.88	0.022	3.61	3.98	0.46	30.16	4.41	43.29	7.32	0.91	318.81	0.14	2.210	0.040	5.23	1.32	25.99	0.44
2053 May	Mean	5039.64	5778.41	0.37	0.32	8.45	1.68	1.91	1.33	0.28	1493.69	2.85	26.83	58.83	15.17	20.09	6.28	0.326	0.234	9.52	26.24	521.01	0.344	0.134	10.75	0.67	173.26	0.230	12.17	44.84	1.96	313.85	14.16	157.88	77.18	9.76	1516.78	1.49	23.598	0.276	34.49	11.28	182.18	4.72
2053 Jun	Mean	2392.84	2743.01	0.16	0.14	3.64	0.79	0.85	0.57	0.13	709.10	1.13	12.72	21.94	7.07	8.61	2.98	0.143	0.110	4.52	12.43	247.26	0.133	0.052	5.10	0.32	65.76	0.109	4.64	21.40	0.80	148.71	5.28	61.72	36.61	4.64	638.22	0.71	11.208	0.121	15.44	5.23	77.62	2.24
2053 Jul	Mean	98.58	113.44	0.02	0.01	0.42	0.04	0.07	0.05	0.01	29.29	0.18	0.54	4.76	0.38	0.78	0.13	0.006	0.005	0.19	0.53	10.28	0.022	0.010	0.21	0.01	12.81	0.004	0.99	0.80	0.12	6.35	1.24	11.73	1.53	0.19	83.99	0.03	0.459	0.008	1.28	0.30	4.19	0.09
2053 Aug	Mean	105.36	121.40	0.02	0.01	0.54	0.05	0.09	0.07	0.01	31.34	0.24	0.58	6.49	0.44	1.02	0.14	0.008	0.005	0.20	0.58	11.01	0.030	0.014	0.23	0.02	17.41	0.005	1.34	0.83	0.16	6.86	1.68	15.76	1.64	0.20	109.93	0.03	0.489	0.010	1.60	0.35	5.51	0.10
2053 Sep	Mean	134.36	154.77	0.03	0.0																																							

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2020 Jan	Mean	122.30	146.18	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.36	0.01	0.84	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.87	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.63	0.03	1.63	2.17	0.21	30.55	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.38	149.84	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.30	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.27	0.95	14.22	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.89	0.04	1.77	2.23	0.22	31.68	0.04	0.545	0.003	0.84	0.29	2.33	0.11
2020 Mar	Mean	116.44	139.14	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.56	0.01	0.80	0.07	0.38	0.58	0.18	0.006	0.010	0.26	0.88	13.20	0.000	0.001	0.25	0.03	0.39	0.005	0.10	0.01	0.03	10.11	0.04	1.74	2.07	0.20	29.75	0.04	0.506	0.003	0.78	0.27	2.19	0.10
2020 Apr	Mean	109.41	130.74	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.42	0.01	0.76	0.07	0.36	0.54	0.17	0.006	0.009	0.24	0.83	12.41	0.000	0.001	0.24	0.03	0.38	0.005	0.10	0.00	0.03	9.50	0.03	1.62	1.94	0.19	27.91	0.04	0.476	0.003	0.73	0.25	2.14	0.10
2020 May	Mean	113.20	135.28	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.58	0.01	0.78	0.09	0.37	0.56	0.18	0.006	0.010	0.25	0.86	12.84	0.000	0.001	0.24	0.03	0.44	0.005	0.10	0.01	0.03	9.83	0.04	1.73	2.01	0.20	29.08	0.04	0.492	0.003	0.76	0.26	2.24	0.10
2020 Jun	Mean	114.87	137.26	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.08	0.01	0.79	0.13	0.37	0.57	0.18	0.006	0.010	0.25	0.87	13.02	0.000	0.001	0.25	0.03	0.53	0.005	0.10	0.01	0.03	9.97	0.04	1.90	2.04	0.20	30.02	0.04	0.500	0.003	0.77	0.27	2.20	0.10
2020 Jul	Mean	115.33	137.78	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.22	0.01	0.79	0.18	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.07	0.001	0.001	0.25	0.03	0.64	0.005	0.10	0.01	0.03	9.99	0.05	2.08	2.05	0.20	30.72	0.04	0.502	0.003	0.78	0.27	2.20	0.10
2020 Aug	Mean	115.47	137.92	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.26	0.02	0.79	0.20	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.08	0.001	0.001	0.25	0.03	0.71	0.005	0.10	0.02	0.03	10.00	0.05	2.17	2.05	0.20	31.06	0.04	0.503	0.003	0.79	0.27	2.20	0.10
2020 Sep	Mean	115.15	137.52	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.16	0.02	0.79	0.21	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.04	0.001	0.001	0.25	0.03	0.73	0.005	0.10	0.02	0.03	9.96	0.05	2.21	2.04	0.20	31.10	0.04	0.501	0.003	0.78	0.27	2.18	0.10
2020 Oct	Mean	115.15	137.50	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.15	0.02	0.79	0.24	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.04	0.001	0.001	0.25	0.03	0.82	0.005	0.10	0.02	0.03	9.95	0.05	2.33	2.04	0.20	31.51	0.04	0.501	0.003	0.79	0.27	2.19	0.10
2020 Nov	Mean	117.94	140.83	0.01	0.01	0.14	0.05	0.04	0.02	0.01	36.00	0.02	0.81	0.34	0.39	0.59	0.18	0.006	0.010	0.26	0.89	13.35	0.001	0.001	0.25	0.03	1.07	0.005	0.10	0.02	0.03	10.19	0.06	2.72	2.09	0.21	33.47	0.04	0.514	0.003	0.82	0.28	2.27	0.10
2020 Dec	Mean	123.57	147.51	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.71	0.02	0.85	0.58	0.41	0.62	0.19	0.007	0.011	0.27	0.93	13.98	0.001	0.002	0.27	0.03	1.68	0.005	0.11	0.03	0.04	10.65	0.09	3.65	2.19	0.22	37.95	0.04	0.538	0.004	0.88	0.29	2.41	0.11
2021 Jan	Mean	126.29	150.61	0.01	0.01	0.16	0.05	0.04	0.03	0.01	38.52	0.03	0.86	1.08	0.42	0.65	0.20	0.007	0.011	0.27	0.94	14.26	0.002	0.002	0.27	0.03	2.94	0.006	0.11	0.06	0.04	10.81	0.14	5.49	2.23	0.22	44.99	0.04	0.551	0.004	0.96	0.30	2.56	0.11
2021 Feb	Mean	122.22	145.63	0.01	0.01	0.17	0.05	0.04	0.04	0.01	37.25	0.04	0.83	1.54	0.41	0.65	0.19	0.007	0.010	0.27	0.91	13.77	0.003	0.003	0.26	0.03	4.11	0.005	0.11	0.08	0.04	10.40	0.18	7.13	2.15	0.21	49.99	0.04	0.534	0.004	0.98	0.29	2.59	0.11
2021 Mar	Mean	112.57	134.21	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.32	0.03	0.77	1.06	0.37	0.58	0.17	0.006	0.010	0.24	0.84	12.70	0.002	0.002	0.24	0.03	2.88	0.005	0.10	0.06	0.04	9.62	0.13	5.23	1.98	0.20	41.29	0.04	0.492	0.004	0.86	0.27	2.35	0.10
2021 Apr	Mean	107.53	128.42	0.01	0.01	0.13	0.05	0.04	0.02	0.00	32.83	0.02	0.74	0.41	0.35	0.55	0.17	0.006	0.009	0.24	0.81	12.18	0.001	0.001	0.23	0.02	1.25	0.005	0.09	0.03	0.03	9.30	0.07	2.78	1.91	0.19	31.68	0.04	0.468	0.003	0.76	0.25	2.32	0.09
2021 May	Mean	111.86	133.67	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.17	0.02	0.77	0.33	0.37	0.58	0.17	0.006	0.010	0.25	0.85	12.68	0.001	0.001	0.24	0.03	1.07	0.005	0.10	0.02	0.03	9.71	0.06	2.53	1.99	0.19	31.75	0.04	0.487	0.003	0.78	0.26	2.49	0.10
2021 Jun	Mean	114.15	136.30	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.84	0.02	0.78	0.52	0.37	0.58	0.18	0.006	0.010	0.25	0.86	12.92	0.001	0.002	0.25	0.03	1.53	0.005	0.10	0.03	0.03	9.86	0.08	3.31	2.02	0.20	34.87	0.04	0.497	0.003	0.81	0.27	2.33	0.10
2021 Jul	Mean	114.49	136.60	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.93	0.03	0.78	0.81	0.38	0.59	0.18	0.006	0.010	0.25	0.86	12.94	0.002	0.002	0.25	0.03	2.26	0.005	0.10	0.05	0.03	9.83	0.11	4.38	2.02	0.20	38.71	0.04	0.499	0.004	0.85	0.27	2.33	0.10
2021 Aug	Mean	114.45	136.51	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.91	0.03	0.78	1.04	0.38	0.60	0.18	0.006	0.010	0.25	0.86	12.92	0.002	0.002	0.25	0.03	2.82	0.005	0.10	0.05	0.04	9.81	0.13	5.18	2.02	0.20	41.58	0.04	0.500	0.004	0.87	0.27	2.37	0.10
2021 Sep	Mean	113.93	135.87	0.01	0.01	0.15	0.05	0.04	0.03	0.01	34.75	0.03	0.78	1.22	0.38	0.60	0.18	0.006	0.010	0.25	0.85	12.86	0.002	0.003	0.25	0.03	3.29	0.005	0.10	0.06	0.04	9.75	0.15	5.86	2.01	0.20	43.92	0.04	0.497	0.004	0.89	0.27	2.40	0.10
2021 Oct	Mean	113.73	135.62	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.68	0.04	0.78	1.51	0.38	0.61	0.18	0.006	0.010	0.25	0.85	12.84	0.003	0.003	0.25	0.03	4.01	0.005	0.10	0.06	0.04	9.73	0.18	6.89	2.01	0.20	47.62	0.04	0.497	0.004	0.92	0.27	2.47	0.10
2021 Nov	Mean	116.24	138.63	0.01	0.01	0.18	0.05	0.04	0.04	0.01	35.45	0.05	0.79	2.00	0.39	0.65	0.18	0.007	0.010	0.25	0.87	13.12	0.004	0.004	0.25	0.03	5.28	0.005	0.11	0.06	0.05	9.95	0.23	8.74	2.05	0.20	54.90	0.04	0.507	0.004	1.00	0.28	2.66	0.10
2021 Dec	Mean	121.29	144.61	0.01	0.01	0.21	0.05	0.05	0.06	0.01	36.98	0.07	0.83	3.13	0.42	0.72	0.19	0.007	0.010	0.26	0.90	13.68	0.006	0.005	0.26	0.03	8.13	0.005	0.11	0.07	0.06	10.36	0.34	12.90	2.14	0.21	71.04	0.04	0.530	0.005	1.17	0.30	3.03	0.11
2022 Jan	Mean	122.39	145.72	0.01	0.01	0.26	0.06	0.06	0.06	0.01	37.28	0.10	0.83	4.50	0.44	0.80	0.19	0.008	0.010	0.26	0.90	13.77	0.009	0.006	0.26	0.03	11.79	0.005	0.12	0.10	0.07	10.36	0.53	11.12	2.15	0.22	70.06	0.04	0.536	0.006	1.25	0.32	3.52	0.11
2022 Feb	Mean	117.29	139.50	0.01	0.01	0.29	0.05	0.06	0.04	0.01	35.70	0.13	0.79	5.31	0.43	0.84	0.18	0.008	0.010	0.25	0.86	13.16	0.012	0.007	0.25	0.03	14.06	0.005	0.12	0.13	0.08	9.85	0.67	6.24	2.05	0.21	57.39	0.04	0.515	0.006	1.21	0.32	3.79	0.10
2022 Mar	Mean	108.79	129.49	0.01	0.01	0.25	0.05	0.05	0.03	0.00	33.13	0.10	0.73	4.13	0.39	0.75	0.17	0.007	0.009																									

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2023 Jul	Mean	108.68	129.44	0.01	0.01	0.31	0.05	0.06	0.04	0.00	33.11	0.14	0.74	7.34	0.41	0.86	0.17	0.008	0.009	0.24	0.80	12.23	0.013	0.010	0.23	0.02	18.79	0.005	0.12	0.09	0.09	9.22	0.76	5.59	1.91	0.19	56.96	0.04	0.476	0.006	1.39	0.31	4.05	0.10
2023 Aug	Mean	107.90	128.43	0.01	0.01	0.34	0.05	0.06	0.04	0.00	32.86	0.17	0.73	8.63	0.42	0.91	0.17	0.008	0.009	0.23	0.79	12.13	0.016	0.012	0.23	0.02	22.05	0.005	0.12	0.10	0.10	9.11	0.89	6.31	1.89	0.19	62.05	0.04	0.473	0.007	1.51	0.32	4.33	0.09
2023 Sep	Mean	107.02	127.34	0.01	0.01	0.36	0.05	0.07	0.05	0.00	32.59	0.18	0.72	9.39	0.42	0.94	0.16	0.008	0.009	0.23	0.78	12.02	0.017	0.013	0.23	0.02	23.97	0.005	0.12	0.11	0.11	9.02	0.97	6.74	1.87	0.19	64.94	0.04	0.469	0.007	1.57	0.32	4.48	0.09
2023 Oct	Mean	106.68	126.93	0.01	0.01	0.37	0.05	0.07	0.05	0.00	32.48	0.19	0.72	9.73	0.43	0.95	0.16	0.008	0.009	0.23	0.78	11.98	0.018	0.013	0.23	0.02	24.84	0.005	0.12	0.11	0.11	8.98	1.00	6.93	1.87	0.19	66.28	0.04	0.468	0.007	1.60	0.32	4.57	0.09
2023 Nov	Mean	109.20	129.97	0.01	0.01	0.37	0.05	0.07	0.05	0.00	33.26	0.19	0.74	9.83	0.44	0.97	0.17	0.008	0.009	0.24	0.80	12.27	0.018	0.013	0.24	0.02	25.10	0.005	0.12	0.10	0.11	9.22	1.01	7.02	1.91	0.19	67.38	0.04	0.479	0.008	1.63	0.33	4.68	0.10
2023 Dec	Mean	113.68	135.22	0.02	0.01	0.43	0.06	0.08	0.06	0.01	34.60	0.23	0.76	11.92	0.47	1.08	0.17	0.009	0.009	0.25	0.83	12.76	0.022	0.016	0.25	0.02	30.38	0.005	0.13	0.12	0.13	9.56	1.22	8.27	1.99	0.20	77.05	0.04	0.499	0.009	1.85	0.35	5.27	0.10
2024 Jan	Mean	113.15	134.36	0.02	0.01	0.52	0.06	0.09	0.07	0.01	34.40	0.29	0.75	15.23	0.49	1.22	0.17	0.010	0.009	0.24	0.82	12.65	0.028	0.019	0.24	0.02	38.78	0.005	0.14	0.16	0.16	9.39	1.55	9.42	1.97	0.20	87.93	0.04	0.498	0.010	2.07	0.38	6.09	0.10
2024 Feb	Mean	105.31	124.89	0.02	0.01	0.53	0.05	0.09	0.07	0.00	31.99	0.30	0.70	15.94	0.47	1.21	0.16	0.009	0.008	0.22	0.75	11.74	0.029	0.018	0.23	0.02	40.55	0.005	0.14	0.18	0.16	8.66	1.62	8.96	1.82	0.19	86.17	0.03	0.465	0.010	1.99	0.37	6.12	0.09
2024 Mar	Mean	102.89	122.33	0.01	0.01	0.38	0.05	0.07	0.05	0.00	31.31	0.20	0.69	10.41	0.42	0.97	0.16	0.008	0.008	0.22	0.75	11.54	0.019	0.012	0.22	0.02	26.57	0.005	0.12	0.12	0.11	8.62	1.06	6.20	1.80	0.18	64.38	0.03	0.452	0.008	1.52	0.32	4.91	0.09
2024 Apr	Mean	99.55	118.82	0.01	0.01	0.23	0.05	0.05	0.03	0.00	30.38	0.10	0.68	4.84	0.36	0.75	0.15	0.008	0.009	0.22	0.75	11.26	0.010	0.006	0.21	0.02	12.55	0.004	0.10	0.06	0.07	8.57	0.50	3.54	1.76	0.17	42.87	0.03	0.434	0.006	1.05	0.27	4.14	0.09
2024 May	Mean	103.88	124.12	0.01	0.01	0.21	0.05	0.05	0.03	0.00	31.73	0.09	0.72	3.78	0.37	0.74	0.16	0.008	0.009	0.23	0.79	11.78	0.008	0.005	0.22	0.02	9.91	0.005	0.10	0.04	0.06	9.01	0.40	3.11	1.84	0.18	40.07	0.03	0.452	0.005	0.99	0.27	4.17	0.09
2024 Jun	Mean	107.69	128.38	0.01	0.01	0.28	0.05	0.06	0.03	0.00	32.83	0.13	0.73	6.35	0.40	0.83	0.17	0.008	0.009	0.23	0.80	12.15	0.012	0.008	0.23	0.02	16.32	0.005	0.11	0.07	0.08	9.20	0.66	4.37	1.90	0.19	50.50	0.04	0.470	0.006	1.22	0.30	4.12	0.09
2024 Jul	Mean	106.47	126.69	0.01	0.01	0.36	0.05	0.07	0.04	0.00	32.42	0.18	0.72	9.58	0.42	0.95	0.16	0.008	0.009	0.23	0.78	11.96	0.018	0.011	0.23	0.02	24.47	0.005	0.12	0.11	0.11	8.97	0.98	5.86	1.86	0.19	62.24	0.04	0.467	0.007	1.47	0.32	4.67	0.09
2024 Aug	Mean	105.18	125.05	0.02	0.01	0.41	0.05	0.07	0.05	0.00	32.01	0.21	0.71	11.31	0.43	1.02	0.16	0.009	0.009	0.23	0.77	11.79	0.021	0.013	0.23	0.02	28.84	0.005	0.12	0.12	0.12	8.81	1.16	6.66	1.84	0.19	68.41	0.03	0.462	0.008	1.61	0.33	5.03	0.09
2024 Sep	Mean	104.02	123.62	0.02	0.01	0.43	0.05	0.08	0.05	0.00	31.64	0.23	0.70	12.18	0.44	1.05	0.16	0.009	0.008	0.22	0.76	11.65	0.022	0.014	0.22	0.02	31.04	0.005	0.13	0.13	0.13	8.69	1.24	7.05	1.81	0.18	71.41	0.03	0.457	0.009	1.67	0.33	5.19	0.09
2024 Oct	Mean	103.51	123.02	0.02	0.01	0.43	0.05	0.08	0.05	0.00	31.49	0.23	0.69	12.36	0.44	1.06	0.16	0.009	0.008	0.22	0.75	11.60	0.023	0.014	0.22	0.02	31.49	0.005	0.13	0.13	0.13	8.65	1.26	7.13	1.81	0.18	71.98	0.03	0.455	0.009	1.68	0.33	5.26	0.09
2024 Nov	Mean	105.83	125.83	0.02	0.01	0.44	0.05	0.08	0.05	0.00	32.21	0.24	0.71	12.60	0.45	1.08	0.16	0.009	0.009	0.23	0.77	11.87	0.023	0.015	0.23	0.02	32.12	0.005	0.13	0.13	0.13	8.87	1.29	7.28	1.85	0.19	73.54	0.03	0.465	0.009	1.72	0.34	5.42	0.09
2024 Dec	Mean	107.91	128.19	0.02	0.01	0.52	0.06	0.09	0.06	0.00	32.82	0.29	0.72	15.38	0.48	1.21	0.16	0.010	0.009	0.23	0.78	12.08	0.028	0.018	0.23	0.02	39.16	0.005	0.14	0.15	0.16	8.98	1.56	8.61	1.88	0.19	84.52	0.04	0.475	0.010	1.95	0.37	6.11	0.09
2025 Jan	Mean	111.21	132.33	0.02	0.01	0.48	0.06	0.08	0.06	0.01	33.86	0.26	0.75	13.70	0.48	1.17	0.17	0.009	0.009	0.24	0.82	12.49	0.025	0.015	0.24	0.02	35.55	0.005	0.14	0.11	0.15	9.37	1.42	7.17	1.95	0.20	77.41	0.04	0.488	0.009	1.77	0.37	5.75	0.10
2025 Feb	Mean	111.85	133.17	0.02	0.01	0.47	0.06	0.08	0.05	0.01	34.07	0.25	0.76	13.12	0.48	1.15	0.17	0.009	0.009	0.24	0.82	12.58	0.024	0.014	0.24	0.02	34.30	0.005	0.14	0.10	0.14	9.46	1.37	6.68	1.96	0.20	74.86	0.04	0.490	0.009	1.71	0.36	5.63	0.10
2025 Mar	Mean	109.34	130.21	0.02	0.01	0.44	0.05	0.08	0.05	0.00	33.31	0.24	0.74	12.14	0.46	1.10	0.17	0.009	0.009	0.24	0.81	12.30	0.023	0.013	0.24	0.02	31.84	0.005	0.13	0.09	0.13	9.27	1.28	6.19	1.92	0.19	70.58	0.04	0.479	0.009	1.61	0.35	5.32	0.10
2025 Apr	Mean	605.74	724.25	0.04	0.05	1.13	0.28	0.25	0.13	0.03	185.09	0.44	4.19	18.04	2.13	4.10	0.95	0.044	0.053	1.33	4.61	68.77	0.038	0.022	1.31	0.14	49.01	0.026	0.59	0.12	0.31	52.80	1.93	14.83	10.78	1.05	214.21	0.20	2.632	0.029	5.31	1.56	20.84	0.53
2025 May	Mean	5187.74	6209.13	0.28	0.39	7.30	2.32	1.84	0.82	0.23	1586.36	2.21	36.12	65.90	17.55	31.73	8.18	0.367	0.458	11.43	39.83	590.26	0.172	0.097	11.21	1.20	190.74	0.225	4.77	0.38	1.92	455.50	7.26	92.28	92.67	8.99	1518.11	1.74	22.496	0.212	39.05	12.66	165.36	4.50
2025 Jun	Mean	2030.20	2428.85	0.11	0.15	2.77	0.90	0.71	0.30	0.09	620.62	0.76	14.10	22.17	6.83	11.97	3.19	0.136	0.178	4.47	15.54	230.78	0.057	0.035	4.39	0.47	64.35	0.088	1.85	0.13	0.71	177.72	2.54	34.79	36.21	3.52	581.37	0.68	8.811	0.078	15.02	4.91	59.35	1.76
2025 Jul	Mean	111.12	132.63	0.01	0.01	0.26	0.05	0.05	0.03	0.00	33.91	0.11	0.76	5.29	0.41	0.80	0.17	0.007	0.010	0.24	0.83	12.57	0.010	0.006	0.24	0.03	14.01	0.005	0.11	0.04	0.07	9.57	0.57	3.51	1.97	0.19	46.53	0.04	0.484	0.006	1.12	0.30	3.55	0.10
2025 Aug	Mean	109.65	130.81	0.01	0.01	0.31	0.05	0.06	0.03	0.00	33.45	0.14	0.75	6.97	0.42	0.86	0.17	0.008	0.009	0.24	0.82	12.39	0.013	0.008	0.24	0.02	18.39	0.005	0.12	0.05	0.09	9.41	0.75	4.15	1.94	0.19	52.18	0.04	0.478	0.006	1.23	0.31	3.95	0.10
2025 Sep	Mean	108.64	129.58	0.01	0.01	0.32	0.05	0.06	0.03	0.00	33.14	0.15																																

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2027 Jan	Mean	110.44	131.26	0.02	0.01	0.61	0.06	0.10	0.09	0.01	33.60	0.35	0.74	17.49	0.52	1.39	0.17	0.011	0.009	0.24	0.80	12.37	0.034	0.023	0.24	0.02	45.13	0.005	0.15	0.14	0.19	9.23	1.91	13.53	1.93	0.20	109.73	0.04	0.485	0.012	2.53	0.40	7.01	0.10
2027 Feb	Mean	108.13	128.45	0.02	0.01	0.61	0.06	0.10	0.07	0.00	32.88	0.35	0.72	16.52	0.51	1.39	0.16	0.011	0.009	0.23	0.78	12.10	0.035	0.019	0.23	0.02	43.27	0.005	0.15	0.14	0.19	9.00	1.94	9.61	1.88	0.19	96.32	0.04	0.476	0.012	2.14	0.40	7.03	0.10
2027 Mar	Mean	134.42	159.98	0.02	0.01	0.63	0.07	0.11	0.07	0.01	40.94	0.36	0.91	15.79	0.59	1.53	0.21	0.012	0.011	0.29	0.99	15.11	0.034	0.018	0.29	0.03	41.76	0.006	0.17	0.14	0.19	11.34	1.90	8.34	2.36	0.24	96.40	0.04	0.589	0.013	2.15	0.46	7.81	0.12
2027 Apr	Mean	217.03	259.22	0.03	0.02	0.68	0.11	0.13	0.08	0.01	66.26	0.36	1.49	14.47	0.85	1.98	0.34	0.019	0.019	0.47	1.64	24.58	0.033	0.016	0.47	0.05	38.98	0.009	0.24	0.13	0.20	18.78	1.73	8.34	3.85	0.38	109.53	0.07	0.945	0.015	2.53	0.64	10.49	0.19
2027 May	Mean	4669.38	5599.85	0.27	0.40	7.44	2.14	1.74	0.97	0.20	1429.93	3.27	32.88	84.23	16.15	33.18	7.43	0.385	0.422	10.36	36.40	533.58	0.247	0.103	10.10	1.11	252.34	0.202	4.44	0.53	2.03	415.64	8.75	89.50	83.97	8.04	1443.38	1.57	20.172	0.235	36.58	11.82	190.01	4.03
2027 Jun	Mean	3091.36	3704.90	0.18	0.25	4.76	1.41	1.14	0.59	0.13	946.22	1.93	21.69	49.74	10.62	21.02	4.90	0.241	0.277	6.84	23.97	352.75	0.144	0.064	6.68	0.73	148.80	0.134	2.91	0.31	1.28	273.92	5.34	57.28	55.47	5.34	936.32	1.04	13.372	0.146	23.83	7.75	115.69	2.67
2027 Jul	Mean	164.62	196.56	0.02	0.01	0.42	0.08	0.08	0.04	0.01	50.25	0.19	1.13	7.73	0.61	1.27	0.26	0.012	0.014	0.36	1.24	18.63	0.018	0.009	0.36	0.04	20.83	0.007	0.17	0.07	0.12	14.22	0.95	5.01	2.92	0.29	70.65	0.05	0.717	0.009	1.67	0.46	6.14	0.14
2027 Aug	Mean	106.69	127.11	0.01	0.01	0.39	0.05	0.07	0.04	0.00	32.52	0.20	0.72	8.88	0.44	1.01	0.16	0.008	0.009	0.23	0.79	12.02	0.020	0.010	0.23	0.02	23.58	0.005	0.12	0.08	0.12	9.07	1.10	4.71	1.88	0.19	61.10	0.04	0.467	0.008	1.38	0.33	4.85	0.09
2027 Sep	Mean	140.64	167.68	0.02	0.01	0.52	0.07	0.09	0.06	0.01	42.88	0.27	0.96	11.66	0.57	1.36	0.22	0.012	0.012	0.31	1.05	15.87	0.026	0.013	0.30	0.03	31.08	0.006	0.17	0.10	0.16	12.02	1.43	6.17	2.48	0.25	80.08	0.05	0.614	0.011	1.81	0.44	6.81	0.12
2027 Oct	Mean	107.55	128.09	0.02	0.01	0.42	0.05	0.08	0.04	0.00	32.77	0.22	0.73	9.76	0.45	1.06	0.17	0.009	0.009	0.23	0.79	12.11	0.021	0.011	0.23	0.02	25.88	0.005	0.13	0.08	0.13	9.12	1.20	5.04	1.89	0.19	64.71	0.04	0.471	0.008	1.45	0.34	5.14	0.09
2027 Nov	Mean	108.58	129.24	0.02	0.01	0.47	0.05	0.08	0.05	0.00	33.07	0.25	0.73	11.22	0.47	1.14	0.17	0.009	0.009	0.23	0.80	12.21	0.025	0.012	0.23	0.02	29.73	0.005	0.14	0.10	0.14	9.17	1.38	5.61	1.90	0.19	70.70	0.04	0.476	0.009	1.57	0.36	5.60	0.10
2027 Dec	Mean	110.72	131.66	0.02	0.01	0.57	0.06	0.10	0.06	0.01	33.70	0.32	0.74	14.36	0.50	1.32	0.17	0.010	0.009	0.24	0.81	12.42	0.031	0.016	0.24	0.02	37.99	0.005	0.15	0.12	0.18	9.28	1.76	6.80	1.93	0.20	83.45	0.04	0.486	0.011	1.82	0.39	6.63	0.10
2028 Jan	Mean	110.11	130.80	0.02	0.01	0.63	0.06	0.10	0.07	0.01	33.49	0.37	0.73	16.30	0.52	1.42	0.17	0.011	0.009	0.24	0.80	12.32	0.036	0.018	0.24	0.02	43.08	0.005	0.15	0.15	0.20	9.17	2.00	7.51	1.92	0.19	90.79	0.04	0.484	0.012	1.97	0.41	7.23	0.10
2028 Feb	Mean	107.96	128.18	0.02	0.01	0.64	0.06	0.11	0.07	0.00	32.82	0.37	0.72	16.54	0.52	1.42	0.16	0.011	0.009	0.23	0.78	12.07	0.036	0.018	0.23	0.02	43.71	0.005	0.15	0.16	0.20	8.95	2.03	7.57	1.88	0.19	91.16	0.04	0.475	0.012	1.97	0.41	7.26	0.10
2028 Mar	Mean	104.59	124.17	0.02	0.01	0.61	0.06	0.10	0.06	0.00	31.79	0.35	0.70	15.79	0.50	1.37	0.16	0.010	0.008	0.22	0.75	11.69	0.035	0.017	0.23	0.02	41.74	0.005	0.15	0.15	0.19	8.67	1.94	7.24	1.82	0.19	87.39	0.03	0.460	0.012	1.89	0.39	6.95	0.09
2028 Apr	Mean	162.95	194.31	0.02	0.02	0.62	0.08	0.11	0.07	0.01	49.69	0.35	1.11	14.46	0.67	1.69	0.25	0.015	0.014	0.35	1.22	18.39	0.033	0.016	0.35	0.04	38.81	0.007	0.19	0.13	0.19	13.94	1.73	7.43	2.87	0.29	95.37	0.05	0.712	0.014	2.15	0.52	9.12	0.14
2028 May	Mean	4178.99	5015.75	0.25	0.43	7.37	1.94	1.62	1.18	0.18	1280.51	4.31	29.55	104.65	14.70	34.68	6.68	0.424	0.381	9.30	32.77	478.37	0.324	0.106	9.04	1.00	320.43	0.181	4.04	0.54	2.08	374.02	9.31	87.18	75.36	7.18	1343.83	1.41	18.025	0.268	33.92	10.94	229.40	3.61
2028 Jun	Mean	1972.74	2366.15	0.12	0.19	3.33	0.91	0.75	0.51	0.08	604.18	1.80	13.90	43.88	6.88	15.50	3.14	0.187	0.178	4.38	15.39	225.49	0.135	0.046	4.27	0.47	134.19	0.085	1.88	0.23	0.93	175.75	4.02	39.53	35.49	3.40	619.62	0.66	8.520	0.117	15.71	5.09	98.53	1.70
2028 Jul	Mean	107.83	128.55	0.01	0.01	0.35	0.05	0.07	0.04	0.00	32.88	0.18	0.73	7.48	0.43	0.95	0.17	0.008	0.009	0.23	0.80	12.16	0.017	0.008	0.23	0.02	19.92	0.005	0.12	0.06	0.10	9.21	0.93	4.19	1.90	0.19	55.83	0.04	0.471	0.007	1.28	0.32	4.54	0.09
2028 Aug	Mean	113.57	135.29	0.02	0.01	0.44	0.06	0.08	0.05	0.01	34.61	0.24	0.77	10.19	0.47	1.12	0.17	0.009	0.010	0.25	0.84	12.79	0.023	0.011	0.25	0.03	27.07	0.005	0.14	0.09	0.13	9.65	1.26	5.28	2.00	0.20	67.84	0.04	0.497	0.009	1.52	0.36	5.53	0.10
2028 Sep	Mean	139.39	166.23	0.02	0.01	0.51	0.07	0.09	0.06	0.01	42.51	0.28	0.95	11.61	0.57	1.38	0.22	0.012	0.012	0.30	1.04	15.74	0.026	0.013	0.30	0.03	31.06	0.006	0.16	0.10	0.15	11.93	1.41	6.10	2.46	0.24	79.17	0.05	0.609	0.011	1.79	0.43	7.14	0.12
2028 Oct	Mean	151.80	181.28	0.02	0.02	0.57	0.08	0.10	0.07	0.01	46.34	0.33	1.04	13.01	0.63	1.60	0.24	0.015	0.013	0.33	1.15	17.19	0.030	0.014	0.33	0.03	35.14	0.007	0.18	0.11	0.17	13.12	1.54	6.73	2.69	0.26	86.76	0.05	0.661	0.013	1.97	0.48	8.97	0.13
2028 Nov	Mean	108.12	128.65	0.02	0.01	0.49	0.06	0.09	0.05	0.00	32.92	0.27	0.73	11.84	0.47	1.17	0.17	0.009	0.009	0.23	0.79	12.15	0.026	0.013	0.23	0.02	31.34	0.005	0.14	0.11	0.15	9.11	1.46	5.82	1.89	0.19	72.97	0.04	0.474	0.010	1.62	0.36	5.80	0.09
2028 Dec	Mean	110.72	131.59	0.02	0.01	0.59	0.06	0.10	0.06	0.01	33.68	0.34	0.74	14.93	0.51	1.35	0.17	0.010	0.009	0.24	0.80	12.41	0.033	0.016	0.24	0.02	39.49	0.005	0.15	0.14	0.18	9.25	1.84	7.01	1.93	0.20	85.68	0.04	0.486	0.011	1.87	0.40	6.82	0.10
2029 Jan	Mean	109.72	130.30	0.02	0.01	0.66	0.06	0.11	0.07	0.01	33.36	0.38	0.73	17.55	0.53	1.47	0.17	0.011	0.009	0.24	0.79	12.27	0.037	0.019	0.24	0.02	46.44	0.005	0.16	0.15	0.20	9.11	2.10	8.01	1.91	0.19	94.69	0.04	0.483	0.013	2.05	0.42	7.49	0.10
2029 Feb	Mean	107.11	127.15	0.02	0.01	0.67	0.06	0.11	0.07	0.00	32.56	0.40	0.71	18.60	0.53	1.49	0.16	0.011	0.009	0.23	0.77	11.97	0.039	0.020	0.23	0.02	49.28	0.005	0.16	0.16	0.21	8.87	2.18	8.42	1.86	0.19	97.20	0.04	0.472	0.013	2.10	0.42	7.65	0.09
2029 Mar	Mean	103.53	122.90	0.02	0.01	0.65																																						

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2030 Jul	Mean	169.15	201.99	0.02	0.01	0.51	0.08	0.10	0.06	0.01	51.64	0.27	1.16	10.84	0.66	1.51	0.26	0.014	0.015	0.37	1.28	19.15	0.025	0.012	0.37	0.04	29.24	0.007	0.19	0.08	0.15	14.62	1.29	6.21	3.00	0.29	83.13	0.06	0.737	0.012	1.93	0.50	8.05	0.15
2030 Aug	Mean	105.04	125.10	0.02	0.01	0.45	0.05	0.08	0.05	0.00	32.00	0.24	0.71	10.71	0.45	1.10	0.16	0.009	0.009	0.23	0.78	11.82	0.023	0.012	0.23	0.02	28.41	0.005	0.13	0.08	0.14	8.91	1.30	5.38	1.85	0.18	67.56	0.03	0.460	0.009	1.51	0.34	5.42	0.09
2030 Sep	Mean	135.97	162.10	0.02	0.01	0.55	0.07	0.10	0.06	0.01	41.46	0.31	0.93	13.19	0.57	1.43	0.21	0.012	0.011	0.30	1.01	15.34	0.029	0.014	0.29	0.03	35.19	0.006	0.17	0.10	0.17	11.62	1.58	6.68	2.40	0.24	84.39	0.05	0.594	0.012	1.89	0.44	7.52	0.12
2030 Oct	Mean	104.17	124.01	0.02	0.01	0.46	0.05	0.08	0.05	0.00	31.73	0.25	0.70	11.19	0.45	1.12	0.16	0.009	0.009	0.23	0.77	11.71	0.024	0.012	0.22	0.02	29.67	0.005	0.13	0.09	0.14	8.81	1.36	5.55	1.83	0.18	69.20	0.03	0.456	0.009	1.54	0.35	5.50	0.09
2030 Nov	Mean	107.56	127.97	0.02	0.01	0.51	0.06	0.09	0.05	0.00	32.75	0.28	0.72	12.75	0.48	1.21	0.16	0.010	0.009	0.23	0.79	12.08	0.028	0.014	0.23	0.02	33.78	0.005	0.14	0.11	0.16	9.06	1.55	6.18	1.88	0.19	76.08	0.04	0.472	0.010	1.68	0.37	6.04	0.09
2030 Dec	Mean	110.02	130.76	0.02	0.01	0.62	0.06	0.10	0.07	0.01	33.47	0.36	0.74	16.12	0.52	1.41	0.17	0.011	0.009	0.24	0.80	12.33	0.035	0.017	0.24	0.02	42.66	0.005	0.15	0.14	0.19	9.19	1.95	7.47	1.92	0.19	89.73	0.04	0.483	0.012	1.95	0.40	7.13	0.10
2031 Jan	Mean	108.92	129.32	0.03	0.01	0.69	0.06	0.11	0.07	0.00	33.11	0.41	0.72	18.24	0.54	1.52	0.16	0.011	0.009	0.23	0.78	12.18	0.040	0.020	0.23	0.02	48.20	0.005	0.16	0.16	0.22	9.03	2.23	8.22	1.89	0.19	98.15	0.04	0.480	0.013	2.11	0.42	7.84	0.10
2031 Feb	Mean	106.10	125.90	0.03	0.01	0.71	0.06	0.12	0.08	0.00	32.24	0.42	0.70	18.70	0.53	1.55	0.16	0.011	0.008	0.23	0.76	11.85	0.041	0.020	0.23	0.02	49.35	0.005	0.16	0.17	0.22	8.76	2.32	8.33	1.84	0.19	99.72	0.03	0.468	0.013	2.13	0.42	8.00	0.09
2031 Mar	Mean	102.52	121.64	0.03	0.01	0.68	0.06	0.11	0.07	0.00	31.15	0.41	0.68	17.90	0.52	1.49	0.15	0.011	0.008	0.22	0.73	11.44	0.040	0.019	0.22	0.02	47.22	0.004	0.16	0.16	0.21	8.46	2.23	7.98	1.78	0.18	95.86	0.03	0.452	0.013	2.04	0.41	7.70	0.09
2031 Apr	Mean	230.78	275.87	0.03	0.02	0.77	0.11	0.14	0.10	0.01	70.51	0.45	1.60	16.87	0.93	2.37	0.36	0.025	0.020	0.51	1.75	26.19	0.042	0.018	0.50	0.05	45.91	0.010	0.26	0.14	0.24	20.09	2.00	9.08	4.10	0.40	121.10	0.08	1.003	0.020	2.77	0.70	14.78	0.20
2031 May	Mean	4208.07	5048.27	0.26	0.45	7.31	1.95	1.64	1.16	0.18	1288.97	4.00	29.68	99.38	14.81	34.48	6.71	0.451	0.382	9.35	32.88	481.21	0.330	0.107	9.10	1.00	300.27	0.182	4.07	0.56	2.12	375.42	9.71	86.68	75.76	7.24	1365.03	1.42	18.167	0.274	34.30	10.89	245.76	3.63
2031 Jun	Mean	2379.56	2853.21	0.14	0.24	3.99	1.09	0.91	0.61	0.10	728.61	2.06	16.74	50.98	8.31	18.65	3.78	0.240	0.215	5.28	18.52	271.81	0.168	0.057	5.14	0.56	153.98	0.103	2.28	0.29	1.14	211.54	5.08	47.41	42.77	4.10	755.81	0.80	10.283	0.145	19.07	6.10	128.35	2.06
2031 Jul	Mean	131.62	156.98	0.02	0.01	0.44	0.06	0.08	0.05	0.01	40.14	0.22	0.90	9.26	0.52	1.19	0.20	0.011	0.011	0.29	0.98	14.86	0.021	0.010	0.28	0.03	24.70	0.006	0.15	0.08	0.13	11.28	1.16	5.14	2.32	0.23	68.99	0.04	0.575	0.009	1.58	0.39	6.01	0.11
2031 Aug	Mean	104.56	124.49	0.02	0.01	0.46	0.05	0.08	0.05	0.00	31.85	0.25	0.71	10.78	0.45	1.12	0.16	0.009	0.009	0.23	0.77	11.76	0.024	0.012	0.23	0.02	28.54	0.005	0.13	0.09	0.14	8.85	1.35	5.36	1.83	0.18	68.52	0.03	0.458	0.009	1.52	0.35	5.54	0.09
2031 Sep	Mean	104.62	124.51	0.02	0.01	0.49	0.05	0.09	0.05	0.00	31.86	0.28	0.71	11.89	0.46	1.18	0.16	0.009	0.009	0.23	0.77	11.76	0.027	0.013	0.23	0.02	31.44	0.005	0.14	0.10	0.15	8.83	1.49	5.77	1.83	0.18	72.91	0.03	0.458	0.010	1.60	0.36	5.90	0.09
2031 Oct	Mean	102.72	122.23	0.02	0.01	0.50	0.05	0.09	0.05	0.00	31.28	0.28	0.69	12.17	0.46	1.18	0.16	0.009	0.008	0.22	0.75	11.54	0.027	0.013	0.22	0.02	32.16	0.004	0.13	0.10	0.15	8.66	1.53	5.85	1.80	0.18	73.55	0.03	0.450	0.010	1.61	0.36	5.92	0.09
2031 Nov	Mean	105.82	125.86	0.02	0.01	0.56	0.06	0.09	0.06	0.00	32.21	0.32	0.71	13.91	0.49	1.29	0.16	0.010	0.009	0.23	0.77	11.88	0.031	0.015	0.23	0.02	36.73	0.005	0.14	0.11	0.17	8.89	1.74	6.54	1.85	0.19	81.21	0.03	0.464	0.011	1.77	0.38	6.52	0.09
2031 Dec	Mean	107.84	128.10	0.03	0.01	0.69	0.06	0.11	0.07	0.00	32.79	0.40	0.72	17.75	0.53	1.52	0.16	0.011	0.009	0.23	0.78	12.07	0.040	0.019	0.23	0.02	46.83	0.005	0.16	0.14	0.21	8.98	2.22	7.99	1.88	0.19	96.91	0.04	0.474	0.013	2.07	0.42	7.80	0.09
2032 Jan	Mean	106.78	126.71	0.03	0.01	0.76	0.06	0.12	0.08	0.00	32.45	0.46	0.71	20.41	0.55	1.64	0.16	0.012	0.009	0.23	0.77	11.92	0.045	0.022	0.23	0.02	53.89	0.005	0.17	0.17	0.24	8.82	2.50	9.00	1.85	0.19	106.28	0.03	0.470	0.014	2.26	0.44	8.52	0.09
2032 Feb	Mean	104.31	123.73	0.03	0.01	0.76	0.06	0.12	0.08	0.00	31.69	0.46	0.69	21.03	0.55	1.64	0.16	0.012	0.008	0.22	0.75	11.64	0.045	0.022	0.22	0.02	55.60	0.005	0.17	0.17	0.24	8.59	2.53	9.24	1.81	0.19	107.24	0.03	0.460	0.014	2.28	0.44	8.55	0.09
2032 Mar	Mean	101.08	119.90	0.03	0.01	0.73	0.06	0.12	0.08	0.00	30.71	0.44	0.67	20.21	0.53	1.57	0.15	0.011	0.008	0.22	0.72	11.28	0.043	0.021	0.22	0.02	53.43	0.004	0.16	0.17	0.23	8.32	2.42	8.90	1.75	0.18	102.90	0.03	0.446	0.014	2.20	0.42	8.18	0.09
2032 Apr	Mean	124.91	148.68	0.02	0.01	0.62	0.07	0.11	0.07	0.01	38.04	0.36	0.84	15.98	0.56	1.50	0.19	0.012	0.010	0.27	0.92	14.04	0.035	0.017	0.27	0.03	42.49	0.005	0.17	0.13	0.19	10.55	1.90	7.61	2.19	0.22	92.12	0.04	0.547	0.013	2.03	0.44	7.94	0.11
2032 May	Mean	3068.29	3680.22	0.20	0.33	5.59	1.43	1.23	0.86	0.13	939.72	3.04	21.62	82.85	10.88	25.27	4.89	0.324	0.278	6.81	23.94	350.73	0.253	0.089	6.63	0.73	245.59	0.133	3.00	0.48	1.63	273.38	8.17	67.64	55.20	5.28	1033.93	1.03	13.251	0.200	25.81	8.02	175.84	2.65
2032 Jun	Mean	1795.04	2152.23	0.11	0.18	3.13	0.83	0.70	0.47	0.08	549.61	1.62	12.62	43.40	6.31	14.19	2.85	0.180	0.162	3.98	13.97	205.02	0.133	0.048	3.88	0.42	129.09	0.078	1.73	0.25	0.90	159.53	4.31	37.86	32.26	3.09	587.78	0.60	7.758	0.110	14.75	4.64	96.14	1.55
2032 Jul	Mean	164.10	196.00	0.02	0.02	0.54	0.08	0.10	0.06	0.01	50.10	0.30	1.13	12.22	0.66	1.60	0.26	0.016	0.014	0.36	1.24	18.59	0.028	0.013	0.35	0.04	33.04	0.007	0.19	0.10	0.16	14.20	1.42	6.65	2.91	0.29	86.54	0.05	0.714	0.013	1.99	0.50	9.16	0.14
2032 Aug	Mean	118.62	141.28	0.02	0.01	0.51	0.06	0.09	0.05	0.01	36.14	0.28	0.80	12.40	0.51	1.26	0.18	0.010	0.010	0.26	0.88	13.35	0.027	0.014	0.26	0.03	32.96	0.005	0.15	0.10	0.15	10.06	1.48	6.20	2.08	0.21	77.01	0.04	0.519	0.010	1.72	0.39	6.32	0.10
2032 Sep	Mean	107.05	127.39	0.02	0.01	0.51																																						

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2034 Jan	Mean	108.73	129.00	0.03	0.01	0.69	0.06	0.11	0.08	0.00	33.04	0.41	0.72	21.84	0.54	1.52	0.16	0.011	0.009	0.23	0.78	12.14	0.040	0.023	0.23	0.02	56.36	0.005	0.16	0.18	0.22	8.97	2.24	10.14	1.88	0.19	104.81	0.04	0.479	0.013	2.32	0.42	7.84	0.10
2034 Feb	Mean	106.49	126.29	0.03	0.01	0.70	0.06	0.11	0.08	0.00	32.35	0.41	0.70	21.73	0.53	1.52	0.16	0.011	0.008	0.23	0.76	11.88	0.040	0.022	0.23	0.02	56.93	0.005	0.16	0.18	0.22	8.76	2.27	9.91	1.84	0.19	104.02	0.03	0.470	0.013	2.29	0.42	7.85	0.09
2034 Mar	Mean	103.30	122.52	0.02	0.01	0.66	0.06	0.11	0.08	0.00	31.38	0.39	0.68	20.35	0.51	1.45	0.16	0.011	0.008	0.22	0.74	11.52	0.038	0.021	0.22	0.02	53.66	0.005	0.15	0.17	0.21	8.50	2.14	9.27	1.79	0.18	98.34	0.03	0.456	0.013	2.17	0.40	7.46	0.09
2034 Apr	Mean	246.85	295.07	0.03	0.03	0.79	0.12	0.15	0.11	0.01	75.41	0.47	1.71	19.88	0.98	2.51	0.39	0.026	0.021	0.54	1.88	28.01	0.042	0.020	0.53	0.06	54.43	0.011	0.28	0.16	0.24	21.48	1.98	10.62	4.39	0.43	128.44	0.08	1.073	0.021	3.01	0.75	15.24	0.21
2034 May	Mean	3052.86	3664.51	0.19	0.35	5.60	1.43	1.20	0.98	0.13	935.51	3.60	21.60	92.75	10.82	27.03	4.88	0.346	0.279	6.79	23.96	349.54	0.272	0.087	6.60	0.73	283.28	0.132	2.96	0.46	1.61	273.43	7.25	69.45	55.07	5.25	1009.02	1.03	13.165	0.218	25.53	8.13	190.40	2.63
2034 Jun	Mean	2299.56	2757.87	0.14	0.24	3.95	1.06	0.88	0.65	0.10	704.22	2.29	16.19	58.99	8.04	18.78	3.66	0.235	0.208	5.10	17.93	262.79	0.172	0.059	4.97	0.54	180.08	0.100	2.19	0.30	1.11	204.73	4.77	48.98	41.36	3.96	732.22	0.77	9.934	0.147	18.63	5.99	125.40	1.99
2034 Jul	Mean	143.52	171.32	0.02	0.01	0.43	0.07	0.08	0.05	0.01	43.80	0.23	0.98	10.18	0.56	1.28	0.22	0.012	0.012	0.31	1.08	16.24	0.021	0.011	0.31	0.03	27.56	0.006	0.16	0.09	0.13	12.37	1.05	5.73	2.54	0.25	70.97	0.05	0.625	0.010	1.67	0.42	6.89	0.13
2034 Aug	Mean	105.68	125.80	0.02	0.01	0.42	0.05	0.07	0.05	0.00	32.19	0.22	0.71	11.17	0.44	1.04	0.16	0.009	0.009	0.23	0.78	11.88	0.021	0.012	0.23	0.02	29.69	0.005	0.13	0.10	0.13	8.93	1.19	5.70	1.85	0.19	66.08	0.03	0.463	0.008	1.51	0.34	5.12	0.09
2034 Sep	Mean	118.64	141.22	0.02	0.01	0.48	0.06	0.09	0.06	0.00	36.13	0.26	0.80	13.19	0.50	1.21	0.18	0.010	0.010	0.26	0.87	13.34	0.025	0.014	0.26	0.03	35.10	0.005	0.14	0.12	0.15	10.02	1.40	6.64	2.08	0.21	76.39	0.04	0.520	0.010	1.74	0.38	6.08	0.10
2034 Oct	Mean	106.13	126.28	0.02	0.01	0.45	0.05	0.08	0.05	0.00	32.31	0.24	0.71	12.38	0.45	1.10	0.16	0.009	0.009	0.23	0.78	11.92	0.023	0.013	0.23	0.02	32.88	0.005	0.13	0.11	0.14	8.94	1.31	6.17	1.86	0.19	70.51	0.03	0.465	0.009	1.60	0.35	5.46	0.09
2034 Nov	Mean	107.68	128.04	0.02	0.01	0.50	0.05	0.09	0.06	0.00	32.77	0.28	0.72	14.18	0.47	1.19	0.16	0.009	0.009	0.23	0.79	12.08	0.027	0.015	0.23	0.02	37.61	0.005	0.14	0.12	0.15	9.03	1.50	6.89	1.88	0.19	77.40	0.04	0.473	0.010	1.74	0.36	5.90	0.09
2034 Dec	Mean	110.28	130.96	0.02	0.01	0.61	0.06	0.10	0.07	0.01	33.53	0.35	0.73	18.16	0.51	1.38	0.17	0.011	0.009	0.24	0.80	12.33	0.034	0.019	0.24	0.02	48.10	0.005	0.15	0.16	0.19	9.16	1.92	8.47	1.92	0.20	92.28	0.04	0.485	0.012	2.05	0.40	7.01	0.10
2035 Jan	Mean	105.64	125.26	0.03	0.01	0.79	0.06	0.13	0.09	0.00	32.08	0.48	0.70	25.45	0.56	1.70	0.16	0.012	0.008	0.23	0.75	11.78	0.047	0.026	0.23	0.02	66.65	0.005	0.17	0.18	0.25	8.68	2.65	11.27	1.83	0.19	117.01	0.03	0.466	0.015	2.55	0.45	8.88	0.09
2035 Feb	Mean	99.11	117.39	0.03	0.01	0.93	0.06	0.14	0.11	0.00	30.08	0.58	0.65	30.98	0.59	1.92	0.15	0.013	0.008	0.21	0.70	11.02	0.057	0.031	0.21	0.02	80.52	0.004	0.18	0.20	0.30	8.08	3.20	13.37	1.71	0.18	134.96	0.03	0.438	0.017	2.91	0.48	10.24	0.09
2035 Mar	Mean	94.61	112.04	0.03	0.01	0.93	0.06	0.14	0.11	0.00	28.71	0.59	0.62	31.38	0.58	1.92	0.14	0.013	0.007	0.20	0.67	10.52	0.058	0.032	0.20	0.02	81.39	0.004	0.18	0.19	0.30	7.70	3.23	13.47	1.63	0.17	135.21	0.03	0.419	0.017	2.91	0.47	10.26	0.08
2035 Apr	Mean	508.87	608.15	0.06	0.05	1.78	0.25	0.32	0.24	0.02	155.44	1.06	3.51	47.14	2.06	5.39	0.80	0.055	0.044	1.12	3.86	57.71	0.097	0.048	1.10	0.12	126.03	0.022	0.59	0.26	0.54	44.22	4.66	24.41	9.04	0.89	286.42	0.17	2.213	0.045	6.66	1.58	32.76	0.44
2035 May	Mean	4908.35	5878.48	0.34	0.50	9.65	2.28	2.06	1.47	0.21	1501.63	5.41	34.30	172.71	17.51	40.68	7.76	0.491	0.437	10.84	37.87	559.24	0.437	0.177	10.61	1.15	494.22	0.213	4.80	0.76	2.77	432.87	15.44	123.93	87.87	8.49	1739.79	1.65	21.259	0.321	43.40	13.06	264.96	4.25
2035 Jun	Mean	2584.89	3094.82	0.17	0.25	4.85	1.19	1.06	0.70	0.11	790.62	2.54	18.03	81.46	9.14	20.32	4.08	0.241	0.229	5.70	19.90	294.32	0.204	0.086	5.59	0.60	232.65	0.112	2.50	0.37	1.37	227.47	7.43	62.19	46.22	4.47	890.18	0.87	11.202	0.156	22.30	6.78	127.02	2.24
2035 Jul	Mean	159.63	190.52	0.02	0.02	0.61	0.08	0.11	0.08	0.01	48.71	0.35	1.09	16.80	0.66	1.69	0.25	0.016	0.014	0.35	1.20	18.05	0.033	0.017	0.34	0.04	44.27	0.007	0.19	0.10	0.19	13.74	1.70	8.53	2.82	0.28	98.09	0.05	0.696	0.014	2.26	0.51	9.38	0.14
2035 Aug	Mean	156.00	185.92	0.03	0.02	0.81	0.08	0.14	0.10	0.01	47.55	0.49	1.06	24.22	0.71	2.01	0.24	0.017	0.013	0.34	1.16	17.59	0.046	0.025	0.34	0.03	63.47	0.007	0.21	0.14	0.25	13.30	2.46	11.38	2.75	0.27	123.55	0.05	0.682	0.017	2.77	0.56	11.35	0.14
2035 Sep	Mean	98.10	116.61	0.02	0.01	0.65	0.05	0.11	0.08	0.00	29.85	0.39	0.66	20.45	0.49	1.43	0.15	0.011	0.008	0.21	0.71	11.00	0.038	0.021	0.21	0.02	53.06	0.004	0.15	0.12	0.20	8.20	2.11	9.26	1.71	0.17	97.17	0.03	0.431	0.012	2.14	0.39	7.41	0.09
2035 Oct	Mean	128.50	152.89	0.03	0.01	0.77	0.07	0.13	0.09	0.01	39.12	0.45	0.87	23.67	0.62	1.75	0.20	0.014	0.011	0.28	0.94	14.43	0.044	0.024	0.28	0.03	61.52	0.006	0.19	0.14	0.24	10.82	2.44	10.90	2.25	0.23	115.97	0.04	0.563	0.015	2.57	0.49	9.16	0.11
2035 Nov	Mean	100.58	119.48	0.03	0.01	0.74	0.06	0.12	0.09	0.00	30.59	0.45	0.67	23.99	0.53	1.61	0.15	0.012	0.008	0.22	0.73	11.26	0.044	0.024	0.22	0.02	62.19	0.004	0.16	0.14	0.24	8.37	2.47	10.68	1.75	0.18	110.41	0.03	0.442	0.014	2.41	0.42	8.39	0.09
2035 Dec	Mean	100.64	119.35	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.57	0.57	0.66	30.40	0.59	1.90	0.15	0.013	0.008	0.21	0.72	11.22	0.056	0.031	0.22	0.02	78.76	0.004	0.18	0.17	0.29	8.28	3.13	13.18	1.74	0.18	133.27	0.03	0.444	0.017	2.88	0.48	10.12	0.09
2036 Jan	Mean	98.56	116.74	0.04	0.01	1.02	0.06	0.16	0.12	0.00	29.91	0.64	0.65	34.31	0.61	2.07	0.15	0.014	0.008	0.21	0.70	10.96	0.063	0.034	0.21	0.02	88.85	0.004	0.19	0.19	0.33	8.03	3.53	14.68	1.70	0.18	146.66	0.03	0.436	0.019	3.15	0.50	11.13	0.09
2036 Feb	Mean	96.13	113.81	0.04	0.01	1.02	0.06	0.16	0.12	0.00	29.16	0.65	0.63	34.73	0.61	2.08	0.14	0.014	0.007	0.20	0.68	10.68	0.064	0.035	0.21	0.02	89.94	0.004	0.19	0.20	0.33	7.81	3.57	14.81	1.65	0.17	147.54	0.03	0.425	0.019	3.16	0.50	11.20	0.09
2036 Mar	Mean	93.09</																																										

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2037 Jul	Mean	375.13	447.47	0.04	0.04	1.15	0.18	0.21	0.15	0.02	114.43	0.65	2.56	28.41	1.46	3.54	0.58	0.036	0.032	0.82	2.81	42.37	0.058	0.029	0.81	0.08	76.06	0.016	0.41	0.16	0.34	32.17	2.82	15.51	6.62	0.66	187.91	0.12	1.637	0.029	4.44	1.11	20.90	0.33
2037 Aug	Mean	102.83	122.31	0.02	0.01	0.58	0.06	0.10	0.07	0.00	31.30	0.34	0.69	17.66	0.48	1.33	0.16	0.010	0.008	0.22	0.75	11.54	0.033	0.018	0.22	0.02	45.85	0.004	0.14	0.11	0.18	8.64	1.82	8.22	1.80	0.18	88.25	0.03	0.451	0.011	1.96	0.38	6.78	0.09
2037 Sep	Mean	110.44	131.32	0.02	0.01	0.65	0.06	0.11	0.08	0.01	33.61	0.38	0.74	19.94	0.53	1.47	0.17	0.011	0.009	0.24	0.81	12.39	0.037	0.020	0.24	0.02	51.78	0.005	0.16	0.12	0.20	9.26	2.06	9.21	1.93	0.19	98.17	0.04	0.485	0.013	2.18	0.41	7.61	0.10
2037 Oct	Mean	110.40	131.26	0.02	0.01	0.66	0.06	0.11	0.08	0.01	33.59	0.39	0.74	20.32	0.53	1.49	0.17	0.011	0.009	0.24	0.80	12.38	0.038	0.021	0.24	0.02	52.78	0.005	0.16	0.13	0.21	9.25	2.10	9.36	1.93	0.19	99.52	0.04	0.485	0.013	2.21	0.42	7.73	0.10
2037 Nov	Mean	101.78	120.90	0.03	0.01	0.69	0.06	0.11	0.08	0.00	30.95	0.42	0.68	22.05	0.52	1.52	0.15	0.011	0.008	0.22	0.74	11.39	0.041	0.022	0.22	0.02	57.19	0.004	0.16	0.14	0.22	8.47	2.28	9.93	1.77	0.18	103.70	0.03	0.448	0.013	2.28	0.41	7.88	0.09
2037 Dec	Mean	102.69	121.79	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.19	0.52	0.68	27.92	0.57	1.79	0.15	0.013	0.008	0.22	0.73	11.45	0.051	0.028	0.22	0.02	72.34	0.005	0.18	0.17	0.27	8.45	2.87	12.23	1.78	0.18	124.77	0.03	0.453	0.016	2.71	0.46	9.46	0.09
2038 Jan	Mean	100.82	119.42	0.03	0.01	0.95	0.06	0.15	0.11	0.00	30.60	0.59	0.66	31.69	0.60	1.96	0.15	0.014	0.008	0.21	0.71	11.21	0.058	0.032	0.22	0.02	82.08	0.004	0.19	0.20	0.30	8.22	3.26	13.67	1.74	0.18	137.71	0.03	0.446	0.018	2.97	0.49	10.44	0.09
2038 Feb	Mean	98.15	116.20	0.04	0.01	0.96	0.06	0.15	0.11	0.00	29.77	0.60	0.64	32.38	0.59	1.98	0.15	0.014	0.008	0.21	0.69	10.90	0.060	0.033	0.21	0.02	83.87	0.004	0.19	0.20	0.31	7.97	3.33	13.91	1.69	0.18	139.50	0.03	0.434	0.018	3.00	0.49	10.58	0.09
2038 Mar	Mean	95.02	112.49	0.03	0.01	0.93	0.06	0.14	0.11	0.00	28.83	0.58	0.62	31.12	0.57	1.90	0.14	0.013	0.007	0.20	0.67	10.56	0.057	0.031	0.20	0.02	80.61	0.004	0.18	0.20	0.30	7.72	3.20	13.38	1.63	0.17	134.24	0.03	0.421	0.017	2.89	0.47	10.18	0.08
2038 Apr	Mean	250.28	298.12	0.04	0.03	1.09	0.13	0.19	0.14	0.01	76.26	0.67	1.70	31.26	1.08	2.97	0.39	0.028	0.021	0.54	1.85	28.18	0.062	0.031	0.54	0.06	82.80	0.011	0.31	0.19	0.34	21.24	3.12	15.09	4.40	0.44	168.35	0.08	1.095	0.026	3.84	0.84	18.00	0.22
2038 May	Mean	4922.23	5878.82	0.34	0.48	9.47	2.24	2.03	1.43	0.22	1502.83	5.19	33.87	165.82	17.34	39.03	7.68	0.471	0.424	10.77	37.18	557.46	0.418	0.171	10.63	1.12	474.42	0.214	4.66	0.79	2.67	425.83	14.88	120.18	87.29	8.58	1693.84	1.64	21.431	0.312	42.60	12.92	253.67	4.29
2038 Jun	Mean	2349.80	2806.74	0.15	0.21	4.25	1.06	0.94	0.61	0.10	717.48	2.15	16.18	68.15	8.19	17.57	3.67	0.209	0.203	5.14	17.76	266.18	0.171	0.073	5.07	0.53	195.11	0.102	2.20	0.33	1.18	203.43	6.24	53.78	41.69	4.09	778.85	0.78	10.229	0.136	19.70	6.07	108.97	2.05
2038 Jul	Mean	246.57	293.96	0.03	0.03	0.86	0.12	0.16	0.11	0.01	75.18	0.50	1.68	22.80	0.99	2.52	0.38	0.025	0.021	0.54	1.84	27.81	0.046	0.023	0.53	0.05	60.72	0.011	0.28	0.14	0.26	21.06	2.27	11.79	4.35	0.43	138.00	0.08	1.077	0.021	3.22	0.76	15.00	0.22
2038 Aug	Mean	101.27	120.44	0.02	0.01	0.56	0.05	0.09	0.06	0.00	30.82	0.32	0.68	16.98	0.47	1.28	0.15	0.010	0.008	0.22	0.74	11.36	0.031	0.017	0.22	0.02	44.08	0.004	0.14	0.11	0.17	8.50	1.76	7.94	1.77	0.18	85.44	0.03	0.444	0.011	1.90	0.37	6.54	0.09
2038 Sep	Mean	101.20	120.30	0.02	0.01	0.61	0.06	0.10	0.07	0.00	30.79	0.36	0.68	18.82	0.49	1.37	0.15	0.010	0.008	0.22	0.74	11.34	0.035	0.019	0.22	0.02	48.85	0.004	0.15	0.12	0.19	8.47	1.94	8.66	1.77	0.18	91.99	0.03	0.445	0.012	2.04	0.38	7.03	0.09
2038 Oct	Mean	103.64	123.20	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.53	0.37	0.69	19.43	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.62	0.036	0.020	0.22	0.02	50.42	0.005	0.15	0.12	0.20	8.67	2.01	8.93	1.81	0.18	94.74	0.03	0.455	0.012	2.10	0.39	7.25	0.09
2038 Nov	Mean	101.98	121.13	0.03	0.01	0.69	0.06	0.11	0.08	0.00	31.01	0.41	0.68	21.81	0.52	1.51	0.15	0.011	0.008	0.22	0.74	11.41	0.040	0.022	0.22	0.02	56.56	0.004	0.16	0.14	0.22	8.48	2.25	9.84	1.77	0.18	102.85	0.03	0.449	0.013	2.26	0.41	7.80	0.09
2038 Dec	Mean	103.02	122.17	0.03	0.01	0.84	0.06	0.13	0.10	0.00	31.29	0.51	0.68	27.47	0.57	1.77	0.15	0.013	0.008	0.22	0.74	11.49	0.051	0.028	0.22	0.02	71.19	0.005	0.18	0.17	0.27	8.47	2.83	12.06	1.78	0.18	123.24	0.03	0.454	0.016	2.68	0.46	9.34	0.09
2039 Jan	Mean	101.21	119.88	0.03	0.01	0.94	0.06	0.15	0.11	0.00	30.72	0.58	0.66	31.27	0.59	1.94	0.15	0.014	0.008	0.22	0.72	11.26	0.058	0.032	0.22	0.02	81.01	0.004	0.19	0.20	0.30	8.25	3.22	13.52	1.74	0.18	136.30	0.03	0.448	0.017	2.94	0.48	10.33	0.09
2039 Feb	Mean	98.53	116.65	0.03	0.01	0.96	0.06	0.15	0.11	0.00	29.89	0.60	0.64	32.05	0.59	1.96	0.15	0.014	0.008	0.21	0.69	10.95	0.059	0.032	0.21	0.02	83.02	0.004	0.19	0.20	0.31	8.00	3.30	13.79	1.70	0.18	138.40	0.03	0.436	0.018	2.98	0.48	10.49	0.09
2039 Mar	Mean	95.26	112.78	0.03	0.01	0.92	0.06	0.14	0.11	0.00	28.90	0.57	0.62	30.80	0.57	1.89	0.14	0.013	0.007	0.20	0.67	10.58	0.057	0.031	0.21	0.02	79.78	0.004	0.18	0.20	0.29	7.74	3.17	13.25	1.64	0.17	133.13	0.03	0.422	0.017	2.87	0.47	10.09	0.08
2039 Apr	Mean	303.63	361.74	0.05	0.03	1.25	0.15	0.22	0.16	0.01	92.53	0.75	2.06	35.09	1.28	3.44	0.47	0.033	0.025	0.66	2.25	34.20	0.070	0.035	0.66	0.07	92.94	0.013	0.37	0.21	0.38	25.81	3.51	17.24	5.34	0.53	194.69	0.10	1.328	0.029	4.47	0.99	20.52	0.27
2039 May	Mean	5159.98	6162.58	0.36	0.50	10.08	2.35	2.15	1.52	0.23	1575.38	5.56	35.49	179.52	18.22	41.22	8.05	0.497	0.445	11.29	38.96	584.35	0.450	0.184	11.14	1.17	512.27	0.225	4.90	0.86	2.85	446.30	16.16	128.14	91.50	8.99	1795.06	1.72	22.467	0.331	45.06	13.59	268.20	4.49
2039 Jun	Mean	2481.23	2963.78	0.16	0.23	4.47	1.12	0.99	0.66	0.11	757.62	2.31	17.08	71.55	8.64	18.73	3.87	0.225	0.214	5.43	18.76	281.08	0.183	0.076	5.36	0.56	206.04	0.108	2.32	0.34	1.24	214.83	6.45	56.37	44.02	4.32	817.49	0.83	10.801	0.147	20.71	6.41	118.33	2.16
2039 Jul	Mean	195.85	233.46	0.03	0.02	0.69	0.10	0.13	0.08	0.01	59.71	0.38	1.33	18.31	0.79	1.90	0.30	0.017	0.017	0.43	1.46	22.09	0.035	0.019	0.42	0.04	48.16	0.009	0.23	0.11	0.21	16.71	1.87	9.59	3.45	0.34	112.19	0.06	0.856	0.015	2.60	0.60	10.13	0.17
2039 Aug	Mean	101.52	120.76	0.02	0.01	0.55	0.05	0.09	0.06	0.00	30.90	0.32	0.68	16.71	0.47	1.27	0.16	0.010	0.008	0.22	0.74	11.40	0.031	0.017	0.22	0.02	43.40	0.004	0.14	0.11	0.17	8.53	1.73	7.84	1.78	0.18	84.53	0.03	0.445	0.011	1.89	0.37	6.49	0.09
2039 Sep	Mean	99.74</																																										

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2041 Jan	Mean	101.80	120.59	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.89	0.57	0.67	30.54	0.59	1.91	0.15	0.013	0.008	0.22	0.72	11.32	0.056	0.031	0.22	0.02	79.13	0.004	0.18	0.20	0.29	8.30	3.14	13.24	1.75	0.18	133.81	0.03	0.450	0.017	2.89	0.48	10.14	0.09
2041 Feb	Mean	99.08	117.30	0.03	0.01	0.94	0.06	0.15	0.11	0.00	30.06	0.58	0.65	31.32	0.59	1.93	0.15	0.013	0.008	0.21	0.70	11.01	0.058	0.032	0.21	0.02	81.13	0.004	0.18	0.20	0.30	8.05	3.22	13.50	1.70	0.18	135.87	0.03	0.438	0.017	2.93	0.48	10.30	0.09
2041 Mar	Mean	95.89	113.53	0.03	0.01	0.90	0.06	0.14	0.11	0.00	29.09	0.56	0.63	30.04	0.57	1.85	0.14	0.013	0.007	0.20	0.68	10.65	0.055	0.030	0.21	0.02	77.81	0.004	0.18	0.20	0.29	7.79	3.09	12.96	1.65	0.17	130.52	0.03	0.424	0.017	2.82	0.46	9.89	0.08
2041 Apr	Mean	423.46	504.47	0.06	0.05	1.73	0.21	0.30	0.23	0.02	129.05	1.05	2.87	48.62	1.78	4.82	0.65	0.047	0.035	0.92	3.14	47.69	0.097	0.049	0.91	0.09	129.03	0.018	0.51	0.30	0.53	35.98	4.84	23.87	7.44	0.74	269.60	0.14	1.852	0.041	6.19	1.38	29.22	0.37
2041 May	Mean	5367.80	6410.86	0.37	0.52	10.28	2.44	2.21	1.56	0.24	1638.84	5.65	36.93	179.15	18.89	42.55	8.37	0.515	0.463	11.74	40.54	607.90	0.454	0.184	11.59	1.22	513.44	0.234	5.07	0.88	2.89	464.32	16.02	130.28	95.19	9.35	1839.47	1.79	23.371	0.341	46.30	14.08	277.45	4.67
2041 Jun	Mean	2160.01	2580.00	0.14	0.20	3.88	0.98	0.86	0.56	0.10	659.52	1.97	14.87	61.73	7.52	16.15	3.37	0.193	0.186	4.73	16.32	244.67	0.157	0.066	4.66	0.49	177.28	0.094	2.02	0.31	1.07	186.98	5.62	49.00	38.32	3.76	711.62	0.72	9.403	0.126	18.02	5.57	100.81	1.88
2041 Jul	Mean	119.38	142.21	0.02	0.01	0.47	0.06	0.08	0.05	0.01	36.38	0.25	0.81	12.96	0.50	1.20	0.18	0.010	0.010	0.26	0.88	13.44	0.024	0.014	0.26	0.03	33.80	0.005	0.14	0.09	0.14	10.14	1.34	6.59	2.10	0.21	75.40	0.04	0.522	0.010	1.73	0.38	6.00	0.10
2041 Aug	Mean	102.14	121.48	0.02	0.01	0.53	0.05	0.09	0.06	0.00	31.09	0.30	0.69	15.99	0.47	1.24	0.16	0.010	0.008	0.22	0.75	11.46	0.030	0.016	0.22	0.02	41.53	0.004	0.14	0.11	0.17	8.58	1.65	7.56	1.79	0.18	82.06	0.03	0.448	0.010	1.84	0.36	6.29	0.09
2041 Sep	Mean	139.57	166.07	0.03	0.01	0.69	0.07	0.12	0.08	0.00	42.50	0.41	0.94	20.63	0.63	1.71	0.21	0.015	0.012	0.30	1.02	15.68	0.039	0.021	0.30	0.03	53.95	0.006	0.18	0.14	0.22	11.76	2.11	9.77	2.44	0.25	106.68	0.05	0.612	0.015	2.40	0.49	9.38	0.12
2041 Oct	Mean	133.12	158.38	0.02	0.01	0.67	0.07	0.11	0.08	0.01	40.53	0.39	0.90	19.85	0.60	1.62	0.20	0.014	0.011	0.29	0.98	14.95	0.037	0.020	0.29	0.03	51.83	0.006	0.18	0.13	0.21	11.21	2.03	9.41	2.33	0.23	102.64	0.04	0.584	0.014	2.31	0.47	8.74	0.12
2041 Nov	Mean	134.98	160.50	0.03	0.01	0.74	0.07	0.12	0.09	0.01	41.08	0.44	0.91	22.57	0.63	1.74	0.21	0.014	0.011	0.29	0.98	15.14	0.042	0.023	0.29	0.03	58.77	0.006	0.19	0.15	0.23	11.32	2.32	10.52	2.36	0.24	113.08	0.04	0.593	0.015	2.52	0.49	9.20	0.12
2041 Dec	Mean	104.27	123.67	0.03	0.01	0.80	0.06	0.13	0.09	0.00	31.67	0.49	0.69	25.93	0.56	1.70	0.16	0.012	0.008	0.22	0.75	11.63	0.048	0.026	0.22	0.02	67.22	0.005	0.17	0.17	0.25	8.58	2.67	11.47	1.81	0.19	117.98	0.03	0.460	0.015	2.57	0.45	8.94	0.09
2042 Jan	Mean	102.51	121.42	0.03	0.01	0.90	0.06	0.14	0.11	0.00	31.11	0.55	0.67	29.69	0.59	1.87	0.15	0.013	0.008	0.22	0.72	11.40	0.055	0.030	0.22	0.02	76.92	0.005	0.18	0.20	0.29	8.36	3.05	12.91	1.77	0.18	130.88	0.03	0.453	0.017	2.83	0.47	9.91	0.09
2042 Feb	Mean	99.79	118.14	0.03	0.01	0.92	0.06	0.14	0.11	0.00	30.27	0.57	0.65	30.50	0.58	1.89	0.15	0.013	0.008	0.21	0.70	11.09	0.056	0.031	0.21	0.02	79.00	0.004	0.18	0.21	0.29	8.11	3.14	13.19	1.72	0.18	133.06	0.03	0.442	0.017	2.88	0.47	10.08	0.09
2042 Mar	Mean	96.38	114.11	0.03	0.01	0.88	0.06	0.14	0.10	0.00	29.24	0.55	0.63	29.28	0.56	1.82	0.14	0.013	0.007	0.20	0.68	10.71	0.054	0.030	0.21	0.02	75.84	0.004	0.17	0.20	0.28	7.83	3.01	12.67	1.66	0.17	127.88	0.03	0.427	0.016	2.76	0.46	9.68	0.09
2042 Apr	Mean	315.07	375.50	0.04	0.03	1.14	0.16	0.21	0.15	0.01	96.05	0.67	2.14	30.62	1.28	3.28	0.49	0.032	0.027	0.68	2.34	35.52	0.061	0.031	0.68	0.07	81.35	0.014	0.36	0.20	0.35	26.85	3.06	15.66	5.55	0.55	181.69	0.10	1.377	0.027	4.22	0.98	19.35	0.28
2042 May	Mean	5612.56	6703.08	0.39	0.54	10.72	2.55	2.30	1.62	0.25	1713.55	5.86	38.61	185.95	19.74	44.33	8.75	0.536	0.484	12.28	42.38	635.60	0.471	0.191	12.12	1.27	532.89	0.244	5.30	0.94	3.01	485.44	16.65	135.78	99.52	9.78	1919.60	1.87	24.438	0.355	48.33	14.71	288.36	4.89
2042 Jun	Mean	2337.04	2791.58	0.15	0.22	4.11	1.05	0.91	0.61	0.10	713.60	2.12	16.09	63.68	8.11	17.54	3.65	0.213	0.202	5.12	17.67	264.75	0.167	0.067	5.05	0.53	184.84	0.102	2.17	0.31	1.13	202.36	5.66	51.55	41.46	4.07	755.40	0.78	10.173	0.137	19.21	6.01	111.58	2.03
2042 Jul	Mean	179.30	213.69	0.02	0.02	0.64	0.09	0.12	0.08	0.01	54.66	0.36	1.22	17.01	0.73	1.79	0.28	0.017	0.015	0.39	1.33	20.21	0.033	0.018	0.39	0.04	44.93	0.008	0.21	0.11	0.19	15.28	1.72	8.82	3.16	0.31	102.87	0.06	0.784	0.015	2.39	0.55	9.96	0.16
2042 Aug	Mean	102.14	121.47	0.02	0.01	0.53	0.05	0.09	0.06	0.00	31.09	0.31	0.69	16.03	0.47	1.24	0.16	0.010	0.008	0.22	0.75	11.46	0.030	0.017	0.22	0.02	41.64	0.004	0.14	0.11	0.17	8.57	1.66	7.58	1.79	0.18	82.22	0.03	0.448	0.010	1.84	0.36	6.29	0.09
2042 Sep	Mean	100.40	119.34	0.02	0.01	0.57	0.05	0.09	0.07	0.00	30.55	0.33	0.67	17.37	0.47	1.29	0.15	0.010	0.008	0.22	0.73	11.25	0.032	0.018	0.22	0.02	45.08	0.004	0.14	0.12	0.18	8.40	1.80	8.08	1.75	0.18	86.54	0.03	0.441	0.011	1.92	0.37	6.59	0.09
2042 Oct	Mean	122.03	145.17	0.02	0.01	0.61	0.06	0.10	0.07	0.01	37.15	0.35	0.82	18.08	0.55	1.44	0.19	0.011	0.010	0.26	0.89	13.70	0.034	0.019	0.26	0.03	47.00	0.005	0.16	0.12	0.19	10.27	1.87	8.62	2.14	0.21	94.28	0.04	0.535	0.012	2.12	0.43	7.34	0.11
2042 Nov	Mean	103.47	122.94	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.47	0.37	0.69	19.51	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.59	0.036	0.020	0.22	0.02	50.62	0.005	0.15	0.13	0.20	8.63	2.02	8.95	1.80	0.18	94.93	0.03	0.455	0.012	2.10	0.39	7.22	0.09
2042 Dec	Mean	104.71	124.21	0.03	0.01	0.78	0.06	0.12	0.09	0.00	31.81	0.47	0.69	25.23	0.55	1.67	0.16	0.012	0.008	0.22	0.75	11.68	0.046	0.026	0.23	0.02	65.40	0.005	0.17	0.17	0.25	8.63	2.60	11.20	1.81	0.19	115.56	0.03	0.462	0.015	2.53	0.44	8.76	0.09
2043 Jan	Mean	102.97	121.98	0.03	0.01	0.88	0.06	0.14	0.10	0.00	31.25	0.55	0.68	29.18	0.58	1.85	0.15	0.013	0.008	0.22	0.73	11.45	0.054	0.029	0.22	0.02	75.61	0.005	0.18	0.20	0.28	8.40	3.00	12.72	1.78	0.18	129.16	0.03	0.455	0.017	2.80	0.47	9.78	0.09
2043 Feb	Mean	100.17	118.60	0.03	0.01	0.91	0.06	0.14	0.11	0.00	30.39	0.56	0.66	30.13	0.58	1.88	0.15	0.013	0.008	0.21	0.71	11.13	0.055	0.030	0.22	0.02	78.04	0.004	0.18	0.21	0.29	8.14	3.10	13.05	1.72	0.18	131.81	0.03	0.443	0.017	2.85	0.47	9.98	0.09
2043 Mar	Mean	96.68																																										

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2044 Jul	Mean	172.35	205.45	0.02	0.02	0.57	0.08	0.11	0.07	0.01	52.55	0.31	1.17	14.54	0.68	1.61	0.27	0.015	0.015	0.37	1.28	19.44	0.028	0.015	0.37	0.04	38.39	0.008	0.19	0.10	0.17	14.71	1.48	7.80	3.04	0.30	92.81	0.06	0.753	0.013	2.17	0.52	8.71	0.15
2044 Aug	Mean	102.44	121.85	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.18	0.29	0.69	15.42	0.46	1.22	0.16	0.010	0.008	0.22	0.75	11.50	0.029	0.016	0.22	0.02	40.07	0.004	0.14	0.11	0.16	8.61	1.60	7.34	1.79	0.18	80.10	0.03	0.449	0.010	1.80	0.36	6.14	0.09
2044 Sep	Mean	106.85	127.04	0.02	0.01	0.57	0.06	0.10	0.07	0.00	32.51	0.33	0.72	17.30	0.49	1.33	0.16	0.010	0.009	0.23	0.78	11.98	0.032	0.018	0.23	0.02	44.94	0.005	0.15	0.12	0.18	8.95	1.79	8.13	1.87	0.19	87.82	0.04	0.469	0.011	1.96	0.39	6.76	0.09
2044 Oct	Mean	102.86	122.28	0.02	0.01	0.56	0.06	0.09	0.07	0.00	31.30	0.33	0.69	17.14	0.48	1.30	0.16	0.010	0.008	0.22	0.75	11.53	0.032	0.018	0.22	0.02	44.52	0.005	0.14	0.12	0.18	8.61	1.77	8.02	1.80	0.18	86.30	0.03	0.452	0.011	1.92	0.37	6.61	0.09
2044 Nov	Mean	103.66	123.15	0.02	0.01	0.63	0.06	0.10	0.07	0.00	31.53	0.37	0.69	19.51	0.50	1.41	0.16	0.011	0.008	0.22	0.75	11.60	0.036	0.020	0.22	0.02	50.62	0.005	0.15	0.14	0.20	8.63	2.02	8.95	1.81	0.18	94.95	0.03	0.456	0.012	2.10	0.40	7.21	0.09
2044 Dec	Mean	104.94	124.47	0.03	0.01	0.78	0.06	0.12	0.09	0.00	31.88	0.47	0.69	25.11	0.55	1.67	0.16	0.012	0.008	0.22	0.75	11.71	0.046	0.025	0.23	0.02	65.08	0.005	0.17	0.18	0.25	8.64	2.59	11.15	1.82	0.19	115.15	0.03	0.463	0.015	2.52	0.44	8.72	0.09
2045 Jan	Mean	103.20	122.25	0.03	0.01	0.87	0.06	0.14	0.10	0.00	31.32	0.54	0.68	28.83	0.58	1.83	0.15	0.013	0.008	0.22	0.73	11.48	0.053	0.029	0.22	0.02	74.71	0.005	0.18	0.20	0.28	8.42	2.97	12.58	1.78	0.18	127.94	0.03	0.456	0.016	2.78	0.47	9.69	0.09
2045 Feb	Mean	100.51	119.00	0.03	0.01	0.89	0.06	0.14	0.11	0.00	30.49	0.55	0.66	29.67	0.58	1.85	0.15	0.013	0.008	0.21	0.71	11.17	0.055	0.030	0.22	0.02	76.88	0.004	0.18	0.21	0.28	8.16	3.05	12.87	1.73	0.18	130.26	0.03	0.445	0.017	2.82	0.47	9.86	0.09
2045 Mar	Mean	97.09	114.95	0.03	0.01	0.86	0.06	0.13	0.10	0.00	29.46	0.53	0.64	28.53	0.56	1.79	0.14	0.013	0.008	0.21	0.68	10.79	0.053	0.029	0.21	0.02	73.92	0.004	0.17	0.20	0.27	7.89	2.94	12.38	1.67	0.17	125.35	0.03	0.430	0.016	2.71	0.45	9.49	0.09
2045 Apr	Mean	354.96	422.95	0.05	0.04	1.33	0.18	0.24	0.17	0.02	108.19	0.79	2.41	36.37	1.46	3.79	0.55	0.037	0.030	0.77	2.63	39.99	0.073	0.037	0.77	0.08	96.55	0.015	0.41	0.24	0.41	30.20	3.63	18.35	6.24	0.62	211.08	0.12	1.552	0.032	4.88	1.12	22.48	0.31
2045 May	Mean	5773.67	6895.77	0.39	0.55	10.72	2.62	2.33	1.63	0.25	1762.79	5.82	39.73	179.65	20.20	45.06	9.00	0.549	0.498	12.63	43.61	653.90	0.464	0.185	12.47	1.31	518.09	0.251	5.41	0.92	3.00	499.51	15.94	135.13	102.39	10.06	1933.17	1.92	25.137	0.359	48.87	15.04	293.41	5.03
2045 Jun	Mean	2597.04	3102.00	0.17	0.23	4.58	1.17	1.02	0.66	0.11	792.96	2.29	17.88	70.94	9.01	19.17	4.05	0.229	0.224	5.68	19.63	294.18	0.181	0.076	5.61	0.59	204.15	0.113	2.42	0.37	1.26	224.80	6.46	57.75	46.07	4.52	845.43	0.86	11.305	0.148	21.46	6.67	118.65	2.26
2045 Jul	Mean	194.75	232.11	0.02	0.02	0.67	0.09	0.12	0.08	0.01	59.37	0.38	1.32	17.55	0.78	1.91	0.30	0.018	0.016	0.42	1.45	21.96	0.035	0.018	0.42	0.04	46.50	0.008	0.22	0.12	0.20	16.60	1.77	9.20	3.43	0.34	108.14	0.06	0.851	0.016	2.52	0.59	10.83	0.17
2045 Aug	Mean	102.80	122.28	0.02	0.01	0.51	0.05	0.09	0.06	0.00	31.29	0.29	0.69	15.13	0.46	1.20	0.16	0.009	0.008	0.22	0.75	11.54	0.028	0.016	0.22	0.02	39.31	0.004	0.14	0.11	0.16	8.64	1.57	7.23	1.80	0.18	79.13	0.03	0.451	0.010	1.78	0.36	6.06	0.09
2045 Sep	Mean	100.78	119.80	0.02	0.01	0.56	0.05	0.09	0.06	0.00	30.66	0.32	0.67	16.87	0.47	1.27	0.15	0.010	0.008	0.22	0.73	11.30	0.031	0.017	0.22	0.02	43.80	0.004	0.14	0.12	0.17	8.43	1.75	7.88	1.76	0.18	84.82	0.03	0.443	0.011	1.89	0.37	6.47	0.09
2045 Oct	Mean	116.34	138.36	0.02	0.01	0.60	0.06	0.10	0.07	0.01	35.41	0.34	0.78	17.92	0.53	1.40	0.18	0.011	0.010	0.25	0.85	13.05	0.033	0.018	0.25	0.03	46.59	0.005	0.16	0.13	0.19	9.76	1.85	8.49	2.03	0.21	92.31	0.04	0.511	0.012	2.07	0.41	7.16	0.10
2045 Nov	Mean	119.87	142.48	0.02	0.01	0.67	0.06	0.11	0.08	0.01	36.47	0.39	0.80	20.54	0.56	1.55	0.18	0.012	0.010	0.26	0.87	13.43	0.038	0.021	0.26	0.03	53.41	0.005	0.17	0.15	0.21	10.02	2.12	9.55	2.09	0.21	102.34	0.04	0.527	0.013	2.28	0.44	8.06	0.11
2045 Dec	Mean	105.29	124.88	0.03	0.01	0.77	0.06	0.12	0.09	0.00	31.98	0.46	0.70	24.68	0.55	1.65	0.16	0.012	0.008	0.22	0.75	11.74	0.045	0.025	0.23	0.02	63.99	0.005	0.17	0.18	0.24	8.67	2.54	10.99	1.82	0.19	113.69	0.03	0.464	0.014	2.49	0.44	8.61	0.09
2046 Jan	Mean	103.62	122.75	0.03	0.01	0.86	0.06	0.14	0.10	0.00	31.45	0.53	0.68	28.40	0.58	1.81	0.15	0.013	0.008	0.22	0.73	11.53	0.052	0.029	0.22	0.02	73.59	0.005	0.18	0.20	0.27	8.45	2.92	12.42	1.79	0.18	126.47	0.03	0.458	0.016	2.75	0.47	9.57	0.09
2046 Feb	Mean	100.84	119.39	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.59	0.55	0.66	29.24	0.58	1.84	0.15	0.013	0.008	0.21	0.71	11.20	0.054	0.030	0.22	0.02	75.75	0.004	0.18	0.21	0.28	8.19	3.01	12.71	1.74	0.18	128.75	0.03	0.446	0.016	2.79	0.47	9.74	0.09
2046 Mar	Mean	97.40	115.32	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.55	0.53	0.64	28.10	0.55	1.77	0.15	0.012	0.008	0.21	0.69	10.82	0.052	0.028	0.21	0.02	72.80	0.004	0.17	0.20	0.27	7.91	2.89	12.22	1.68	0.17	123.85	0.03	0.431	0.016	2.68	0.45	9.38	0.09
2046 Apr	Mean	419.02	499.67	0.05	0.04	1.29	0.20	0.24	0.17	0.02	127.79	0.74	2.86	32.21	1.63	4.02	0.65	0.042	0.035	0.91	3.13	47.29	0.067	0.033	0.90	0.09	86.49	0.018	0.45	0.21	0.39	35.85	3.17	17.43	7.39	0.73	210.34	0.14	1.830	0.033	4.97	1.24	24.39	0.37
2046 May	Mean	4768.74	5695.12	0.33	0.45	9.05	2.17	1.95	1.35	0.21	1455.89	4.86	32.80	155.39	16.75	37.23	7.43	0.448	0.411	10.43	36.00	540.00	0.391	0.161	10.30	1.08	444.45	0.208	4.50	0.83	2.54	412.36	14.02	114.71	84.55	8.31	1626.46	1.59	20.765	0.296	40.96	12.47	239.25	4.15
2046 Jun	Mean	2886.20	3447.52	0.18	0.27	5.02	1.30	1.12	0.75	0.13	881.28	2.59	19.87	76.68	9.99	21.58	4.50	0.263	0.249	6.32	21.82	326.96	0.203	0.081	6.23	0.66	223.29	0.126	2.67	0.39	1.38	249.90	6.79	62.86	51.20	5.03	925.43	0.96	12.563	0.169	23.58	7.40	137.55	2.51
2046 Jul	Mean	158.29	188.65	0.02	0.01	0.55	0.08	0.10	0.06	0.01	48.25	0.29	1.08	14.22	0.63	1.50	0.24	0.014	0.013	0.34	1.18	17.84	0.027	0.015	0.34	0.04	37.40	0.007	0.18	0.10	0.16	13.49	1.46	7.52	2.79	0.28	88.62	0.05	0.692	0.012	2.06	0.48	7.91	0.14
2046 Aug	Mean	105.17	125.09	0.02	0.01	0.52	0.05	0.09	0.06	0.00	32.01	0.29	0.71	15.37	0.47	1.23	0.16	0.010	0.009	0.23	0.77	11.80	0.028	0.016	0.23	0.02	39.95	0.005	0.14	0.11	0.16	8.84	1.59	7.35	1.84	0.19	80.54	0.03	0.461	0.010	1.81	0.37	6.19	0.09
2046 Sep	Mean	108.93	1																																									

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2048 Jan	Mean	104.08	123.30	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.59	0.52	0.68	27.76	0.57	1.78	0.16	0.013	0.008	0.22	0.74	11.58	0.051	0.028	0.22	0.02	71.92	0.005	0.18	0.20	0.27	8.49	2.86	12.17	1.79	0.19	124.26	0.03	0.460	0.016	2.70	0.46	9.40	0.09
2048 Feb	Mean	101.25	119.87	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.72	0.54	0.66	28.79	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.25	0.053	0.029	0.22	0.02	74.60	0.004	0.18	0.21	0.28	8.23	2.96	12.54	1.74	0.18	127.24	0.03	0.448	0.016	2.76	0.46	9.63	0.09
2048 Mar	Mean	97.74	115.72	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.65	0.52	0.64	27.88	0.55	1.76	0.15	0.012	0.008	0.21	0.69	10.86	0.051	0.028	0.21	0.02	72.22	0.004	0.17	0.20	0.27	7.94	2.87	12.13	1.68	0.17	123.11	0.03	0.433	0.016	2.67	0.45	9.32	0.09
2048 Apr	Mean	538.91	642.40	0.07	0.06	1.82	0.26	0.33	0.25	0.02	164.30	1.09	3.67	47.74	2.15	5.55	0.83	0.057	0.045	1.17	4.01	60.78	0.099	0.048	1.16	0.12	128.02	0.024	0.60	0.32	0.55	45.99	4.68	24.76	9.49	0.94	291.47	0.18	2.355	0.047	6.83	1.65	34.46	0.47
2048 May	Mean	5521.10	6594.17	0.37	0.53	10.15	2.50	2.21	1.56	0.24	1685.69	5.56	37.99	168.42	19.29	43.16	8.61	0.529	0.476	12.08	41.70	625.31	0.441	0.173	11.92	1.25	487.93	0.240	5.16	0.87	2.84	477.69	14.79	127.60	97.92	9.62	1832.45	1.84	24.037	0.345	46.42	14.36	283.52	4.81
2048 Jun	Mean	2486.38	2970.00	0.16	0.23	4.28	1.12	0.96	0.64	0.11	759.21	2.20	17.12	64.33	8.59	18.53	3.88	0.226	0.215	5.44	18.80	281.68	0.172	0.068	5.37	0.57	187.98	0.108	2.30	0.32	1.18	215.31	5.66	53.46	44.11	4.33	790.79	0.83	10.823	0.145	20.18	6.36	118.31	2.16
2048 Jul	Mean	157.90	188.20	0.02	0.01	0.53	0.08	0.10	0.06	0.01	48.14	0.28	1.07	13.51	0.63	1.47	0.24	0.014	0.013	0.34	1.17	17.80	0.026	0.014	0.34	0.04	35.58	0.007	0.18	0.10	0.16	13.46	1.38	7.23	2.78	0.28	85.91	0.05	0.690	0.012	2.00	0.48	7.79	0.14
2048 Aug	Mean	113.24	134.72	0.02	0.01	0.54	0.06	0.09	0.06	0.01	34.48	0.30	0.76	15.69	0.50	1.29	0.17	0.010	0.009	0.24	0.83	12.72	0.029	0.016	0.24	0.02	40.81	0.005	0.15	0.11	0.17	9.53	1.63	7.58	1.98	0.20	83.61	0.04	0.497	0.011	1.89	0.39	6.49	0.10
2048 Sep	Mean	126.67	150.70	0.02	0.01	0.60	0.07	0.10	0.07	0.01	38.57	0.35	0.85	17.63	0.56	1.48	0.19	0.012	0.010	0.27	0.93	14.23	0.033	0.018	0.27	0.03	46.03	0.006	0.16	0.13	0.19	10.66	1.81	8.47	2.22	0.22	93.22	0.04	0.556	0.012	2.10	0.43	7.84	0.11
2048 Oct	Mean	118.34	140.72	0.02	0.01	0.61	0.06	0.10	0.07	0.01	36.01	0.35	0.79	18.31	0.54	1.44	0.18	0.011	0.010	0.26	0.86	13.27	0.034	0.019	0.26	0.03	47.61	0.005	0.16	0.13	0.19	9.92	1.89	8.66	2.07	0.21	94.05	0.04	0.520	0.012	2.11	0.42	7.38	0.10
2048 Nov	Mean	104.56	124.22	0.02	0.01	0.61	0.06	0.10	0.07	0.00	31.80	0.36	0.70	18.93	0.50	1.38	0.16	0.010	0.008	0.22	0.76	11.70	0.035	0.019	0.23	0.02	49.13	0.005	0.15	0.14	0.19	8.71	1.96	8.74	1.82	0.18	93.09	0.03	0.460	0.012	2.07	0.39	7.06	0.09
2048 Dec	Mean	105.73	125.40	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.12	0.46	0.70	24.38	0.55	1.64	0.16	0.012	0.008	0.23	0.76	11.79	0.045	0.025	0.23	0.02	63.20	0.005	0.17	0.18	0.24	8.70	2.51	10.87	1.83	0.19	112.69	0.03	0.466	0.014	2.47	0.44	8.53	0.09
2049 Jan	Mean	104.02	123.21	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.57	0.52	0.68	28.03	0.58	1.79	0.16	0.013	0.008	0.22	0.74	11.57	0.052	0.028	0.22	0.02	72.62	0.005	0.18	0.20	0.27	8.48	2.89	12.27	1.79	0.19	125.20	0.03	0.460	0.016	2.72	0.46	9.47	0.09
2049 Feb	Mean	101.17	119.77	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.69	0.54	0.66	28.88	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.24	0.053	0.029	0.22	0.02	74.82	0.004	0.18	0.21	0.28	8.22	2.97	12.57	1.74	0.18	127.52	0.03	0.448	0.016	2.76	0.46	9.65	0.09
2049 Mar	Mean	97.66	115.62	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.63	0.52	0.64	27.85	0.55	1.75	0.15	0.012	0.008	0.21	0.69	10.85	0.051	0.028	0.21	0.02	72.15	0.004	0.17	0.20	0.27	7.93	2.87	12.12	1.68	0.17	123.00	0.03	0.432	0.016	2.67	0.45	9.31	0.09
2049 Apr	Mean	392.16	467.42	0.05	0.04	1.34	0.19	0.24	0.17	0.02	119.56	0.77	2.67	35.03	1.57	3.91	0.61	0.039	0.033	0.85	2.91	44.22	0.071	0.036	0.85	0.09	93.18	0.017	0.44	0.24	0.40	33.44	3.50	18.30	6.91	0.69	215.41	0.13	1.714	0.032	5.03	1.20	22.90	0.34
2049 May	Mean	5308.68	6340.42	0.35	0.51	9.79	2.41	2.13	1.50	0.23	1620.83	5.35	36.53	163.03	18.56	41.51	8.28	0.508	0.458	11.62	40.10	601.24	0.425	0.168	11.46	1.21	471.78	0.231	4.97	0.84	2.74	459.29	14.35	123.16	94.15	9.25	1766.45	1.77	23.113	0.332	44.72	13.81	272.28	4.62
2049 Jun	Mean	2506.57	2994.02	0.16	0.23	4.35	1.13	0.97	0.64	0.11	765.35	2.19	17.26	65.81	8.67	18.50	3.91	0.223	0.216	5.49	18.95	283.95	0.171	0.071	5.41	0.57	190.81	0.109	2.32	0.34	1.20	217.01	5.91	54.54	44.47	4.37	804.32	0.83	10.911	0.143	20.48	6.42	115.87	2.18
2049 Jul	Mean	105.74	125.92	0.02	0.01	0.42	0.05	0.07	0.05	0.00	32.21	0.22	0.72	11.46	0.44	1.05	0.16	0.009	0.009	0.23	0.78	11.90	0.021	0.012	0.23	0.02	29.85	0.005	0.13	0.08	0.13	8.96	1.19	5.83	1.86	0.19	66.74	0.03	0.463	0.008	1.53	0.34	5.21	0.09
2049 Aug	Mean	102.79	122.25	0.02	0.01	0.51	0.05	0.09	0.06	0.00	31.29	0.29	0.69	15.04	0.46	1.20	0.16	0.009	0.008	0.22	0.75	11.54	0.028	0.016	0.22	0.02	39.08	0.004	0.14	0.11	0.16	8.63	1.56	7.20	1.80	0.18	78.79	0.03	0.451	0.010	1.77	0.36	6.02	0.09
2049 Sep	Mean	101.12	120.21	0.02	0.01	0.54	0.05	0.09	0.06	0.00	30.77	0.31	0.68	16.33	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.34	0.030	0.017	0.22	0.02	42.40	0.004	0.14	0.12	0.17	8.46	1.69	7.68	1.76	0.18	82.96	0.03	0.444	0.010	1.85	0.36	6.33	0.09
2049 Oct	Mean	156.38	186.06	0.03	0.02	0.74	0.08	0.13	0.09	0.01	47.61	0.43	1.05	21.64	0.69	1.82	0.24	0.015	0.013	0.34	1.15	17.56	0.041	0.022	0.34	0.03	56.53	0.007	0.20	0.16	0.23	13.17	2.22	10.39	2.74	0.28	114.54	0.05	0.686	0.015	2.59	0.54	9.75	0.14
2049 Nov	Mean	104.33	123.95	0.02	0.01	0.61	0.06	0.10	0.07	0.00	31.73	0.35	0.70	18.74	0.50	1.37	0.16	0.010	0.008	0.22	0.76	11.68	0.035	0.019	0.22	0.02	48.64	0.005	0.15	0.14	0.19	8.69	1.94	8.66	1.82	0.18	92.36	0.03	0.459	0.012	2.05	0.39	7.00	0.09
2049 Dec	Mean	105.52	125.16	0.03	0.01	0.75	0.06	0.12	0.09	0.00	32.05	0.45	0.70	24.16	0.55	1.62	0.16	0.012	0.008	0.23	0.75	11.77	0.045	0.025	0.23	0.02	62.63	0.005	0.17	0.17	0.24	8.69	2.49	10.79	1.83	0.19	111.87	0.03	0.465	0.014	2.45	0.44	8.46	0.09
2050 Jan	Mean	103.92	123.11	0.03	0.01	0.85	0.06	0.13	0.10	0.00	31.54	0.52	0.68	27.97	0.57	1.79	0.16	0.013	0.008	0.22	0.74	11.56	0.052	0.028	0.22	0.02	72.48	0.005	0.18	0.20	0.27	8.48	2.88	12.25	1.79	0.19	124.99	0.03	0.459	0.016	2.72	0.46	9.46	0.09
2050 Feb	Mean	101.18	119.80	0.03	0.01	0.87	0.06	0.14	0.10	0.00	30.70	0.54	0.66	28.88	0.57	1.82	0.15	0.013	0.008	0.21	0.71	11.24	0.053	0.029	0.22	0.02	74.81	0.004	0.18	0.21	0.28	8.22	2.97	12.57	1.74	0.18	127.53	0.03	0.448	0.016	2.76	0.46	9.65	0.09
2050 Mar	Mean	97.66	11																																									

Table A-11
Monthly WQ Report for Scenario A.3.c - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Succeeds

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2051 Jul	Mean	127.55	151.95	0.02	0.01	0.47	0.06	0.09	0.05	0.01	38.87	0.25	0.86	12.75	0.52	1.24	0.20	0.011	0.011	0.28	0.94	14.36	0.024	0.013	0.28	0.03	33.31	0.006	0.15	0.09	0.14	10.84	1.32	6.60	2.24	0.22	76.51	0.04	0.558	0.010	1.76	0.40	6.21	0.11
2051 Aug	Mean	104.79	124.64	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.90	0.29	0.70	15.20	0.47	1.22	0.16	0.010	0.009	0.23	0.77	11.76	0.028	0.016	0.23	0.02	39.49	0.005	0.14	0.11	0.16	8.80	1.57	7.28	1.83	0.18	79.82	0.03	0.460	0.010	1.79	0.36	6.13	0.09
2051 Sep	Mean	194.65	231.85	0.03	0.02	0.76	0.10	0.14	0.10	0.01	59.31	0.44	1.32	21.06	0.81	2.08	0.30	0.019	0.016	0.42	1.44	21.91	0.041	0.022	0.42	0.04	55.58	0.008	0.23	0.15	0.23	16.52	2.13	10.55	3.42	0.34	120.43	0.06	0.852	0.017	2.77	0.62	11.85	0.17
2051 Oct	Mean	101.19	120.30	0.02	0.01	0.54	0.06	0.09	0.06	0.00	30.79	0.31	0.68	16.44	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.34	0.030	0.017	0.22	0.02	42.69	0.004	0.14	0.12	0.17	8.47	1.70	7.72	1.77	0.18	83.39	0.03	0.444	0.011	1.86	0.36	6.35	0.09
2051 Nov	Mean	103.91	123.45	0.02	0.01	0.61	0.06	0.10	0.07	0.00	31.60	0.36	0.69	18.94	0.50	1.38	0.16	0.010	0.008	0.22	0.75	11.63	0.035	0.019	0.22	0.02	49.15	0.005	0.15	0.14	0.19	8.65	1.96	8.73	1.81	0.18	92.96	0.03	0.457	0.012	2.06	0.39	7.05	0.09
2051 Dec	Mean	105.50	125.13	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.05	0.46	0.70	24.38	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.77	0.045	0.025	0.23	0.02	63.20	0.005	0.17	0.18	0.24	8.69	2.51	10.87	1.83	0.19	112.64	0.03	0.465	0.014	2.47	0.44	8.53	0.09
2052 Jan	Mean	103.85	123.02	0.03	0.01	0.86	0.06	0.14	0.10	0.00	31.52	0.53	0.68	28.10	0.58	1.80	0.16	0.013	0.008	0.22	0.73	11.55	0.052	0.028	0.22	0.02	72.81	0.005	0.18	0.20	0.27	8.47	2.89	12.30	1.79	0.19	125.43	0.03	0.459	0.016	2.73	0.46	9.49	0.09
2052 Feb	Mean	101.05	119.64	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.66	0.54	0.66	29.01	0.57	1.83	0.15	0.013	0.008	0.21	0.71	11.23	0.053	0.029	0.22	0.02	75.17	0.004	0.18	0.21	0.28	8.21	2.99	12.62	1.74	0.18	127.99	0.03	0.447	0.016	2.77	0.46	9.68	0.09
2052 Mar	Mean	97.57	115.51	0.03	0.01	0.85	0.06	0.13	0.10	0.00	29.60	0.52	0.64	28.00	0.55	1.76	0.15	0.012	0.008	0.21	0.69	10.84	0.052	0.028	0.21	0.02	72.55	0.004	0.17	0.20	0.27	7.93	2.88	12.18	1.68	0.17	123.53	0.03	0.432	0.016	2.68	0.45	9.35	0.09
2052 Apr	Mean	271.35	323.21	0.04	0.03	1.08	0.14	0.19	0.14	0.01	82.68	0.64	1.84	29.92	1.13	3.00	0.42	0.029	0.023	0.59	2.01	30.55	0.060	0.030	0.59	0.06	79.34	0.012	0.32	0.20	0.33	23.03	2.99	14.84	4.77	0.48	168.70	0.09	1.187	0.026	3.88	0.87	17.89	0.24
2052 May	Mean	5640.58	6736.75	0.38	0.55	10.48	2.56	2.27	1.61	0.25	1722.15	5.76	38.81	176.32	19.74	44.30	8.80	0.542	0.486	12.34	42.60	638.81	0.458	0.181	12.18	1.28	509.52	0.245	5.29	0.91	2.94	487.96	15.55	132.02	100.03	9.83	1887.17	1.88	24.559	0.355	47.73	14.70	290.89	4.91
2052 Jun	Mean	2569.34	3069.02	0.16	0.24	4.46	1.16	1.00	0.66	0.11	784.52	2.28	17.69	67.79	8.89	19.10	4.01	0.232	0.222	5.62	19.42	291.06	0.178	0.072	5.55	0.58	197.10	0.112	2.38	0.35	1.23	222.46	6.03	55.89	45.58	4.48	123.63	0.86	11.184	0.149	20.98	6.58	120.88	2.24
2052 Jul	Mean	246.41	293.83	0.03	0.02	0.75	0.12	0.14	0.10	0.01	75.15	0.42	1.68	18.62	0.96	2.30	0.38	0.023	0.021	0.54	1.84	27.81	0.038	0.019	0.53	0.06	49.76	0.011	0.27	0.13	0.22	21.08	1.86	10.19	4.35	0.43	123.40	0.08	1.076	0.019	2.92	0.73	13.40	0.22
2052 Aug	Mean	102.62	122.05	0.02	0.01	0.52	0.05	0.09	0.06	0.00	31.24	0.29	0.69	15.28	0.46	1.21	0.16	0.010	0.008	0.22	0.75	11.52	0.028	0.016	0.22	0.02	39.69	0.004	0.14	0.11	0.16	8.62	1.58	7.29	1.79	0.18	79.59	0.03	0.450	0.010	1.79	0.36	6.10	0.09
2052 Sep	Mean	107.70	128.05	0.02	0.01	0.57	0.06	0.10	0.07	0.00	32.77	0.33	0.72	17.08	0.49	1.32	0.16	0.010	0.009	0.23	0.78	12.08	0.032	0.018	0.23	0.02	44.37	0.005	0.15	0.12	0.18	9.02	1.76	8.05	1.88	0.19	87.14	0.04	0.473	0.011	1.95	0.39	6.76	0.09
2052 Oct	Mean	101.25	120.37	0.02	0.01	0.54	0.05	0.09	0.06	0.00	30.81	0.31	0.68	16.42	0.47	1.25	0.15	0.010	0.008	0.22	0.74	11.35	0.030	0.017	0.22	0.02	42.64	0.004	0.14	0.12	0.17	8.47	1.70	7.72	1.77	0.18	83.34	0.03	0.445	0.011	1.86	0.36	6.35	0.09
2052 Nov	Mean	104.03	123.58	0.02	0.01	0.62	0.06	0.10	0.07	0.00	31.64	0.36	0.69	19.16	0.50	1.39	0.16	0.011	0.008	0.22	0.75	11.64	0.035	0.020	0.22	0.02	49.71	0.005	0.15	0.14	0.19	8.66	1.98	8.82	1.81	0.18	93.77	0.03	0.458	0.012	2.08	0.39	7.11	0.09
2052 Dec	Mean	105.37	124.98	0.03	0.01	0.76	0.06	0.12	0.09	0.00	32.01	0.46	0.70	24.43	0.55	1.64	0.16	0.012	0.008	0.23	0.75	11.75	0.045	0.025	0.23	0.02	63.33	0.005	0.17	0.18	0.24	8.68	2.52	10.89	1.82	0.19	112.80	0.03	0.465	0.014	2.47	0.44	8.54	0.09
2053 Jan	Mean	103.75	122.90	0.03	0.01	0.86	0.06	0.14	0.10	0.00	31.49	0.53	0.68	28.14	0.58	1.80	0.16	0.013	0.008	0.22	0.73	11.54	0.052	0.028	0.22	0.02	72.92	0.005	0.18	0.20	0.27	8.46	2.90	12.32	1.79	0.18	125.57	0.03	0.459	0.016	2.73	0.46	9.50	0.09
2053 Feb	Mean	100.94	119.51	0.03	0.01	0.88	0.06	0.14	0.10	0.00	30.62	0.54	0.66	29.05	0.57	1.83	0.15	0.013	0.008	0.21	0.71	11.22	0.053	0.029	0.22	0.02	75.26	0.004	0.18	0.21	0.28	8.20	2.99	12.63	1.74	0.18	128.09	0.03	0.447	0.016	2.78	0.46	9.69	0.09
2053 Mar	Mean	97.50	115.44	0.03	0.01	0.84	0.06	0.13	0.10	0.00	29.58	0.52	0.64	27.90	0.55	1.76	0.15	0.012	0.008	0.21	0.69	10.83	0.051	0.028	0.21	0.02	72.28	0.004	0.17	0.20	0.27	7.92	2.87	12.14	1.68	0.17	123.16	0.03	0.431	0.016	2.67	0.45	9.32	0.09
2053 Apr	Mean	509.13	606.88	0.06	0.06	1.75	0.25	0.32	0.24	0.02	155.22	1.07	3.46	46.24	2.04	5.38	0.79	0.057	0.043	1.11	3.79	57.41	0.097	0.046	1.10	0.11	124.32	0.022	0.57	0.30	0.53	43.44	4.50	23.74	8.97	0.89	278.02	0.17	2.225	0.046	6.51	1.57	34.24	0.44
2053 May	Mean	5460.22	6521.29	0.37	0.52	10.15	2.48	2.20	1.54	0.24	1667.07	5.50	37.56	170.51	19.11	42.60	8.51	0.518	0.471	11.95	41.24	618.38	0.439	0.176	11.79	1.24	491.32	0.238	5.12	0.89	2.84	472.34	15.16	128.08	96.83	9.52	1830.89	1.82	23.774	0.340	46.27	14.22	276.97	4.75
2053 Jun	Mean	2594.52	3099.25	0.16	0.24	4.41	1.17	0.99	0.66	0.11	792.24	2.24	17.87	65.08	8.95	19.17	4.05	0.234	0.224	5.68	19.62	293.95	0.174	0.069	5.60	0.59	190.49	0.113	2.39	0.32	1.21	224.72	5.73	55.07	46.04	4.52	819.10	0.86	11.293	0.149	20.93	6.62	121.78	2.26
2053 Jul	Mean	105.42	125.53	0.02	0.01	0.43	0.05	0.08	0.05	0.00	32.12	0.23	0.71	11.99	0.44	1.08	0.16	0.009	0.009	0.23	0.78	11.86	0.022	0.013	0.23	0.02	31.21	0.005	0.13	0.09	0.13	8.93	1.25	6.04	1.85	0.19	68.58	0.03	0.462	0.009	1.57	0.34	5.31	0.09
2053 Aug	Mean	112.17	133.42	0.02	0.01	0.55	0.06	0.09	0.06	0.01	34.14	0.31	0.75	16.32	0.50	1.31	0.17	0.010	0.009	0.24	0.82	12.59	0.030	0.017	0.24	0.02	42.42	0.005	0.15	0.12	0.17	9.43	1.69	7.81	1.96	0.20	85.58	0.04	0.492	0.011	1.92	0.39	6.63	0.10
2053 Sep	Mean	143.16																																										

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2020 Jan	Mean	122.31	146.19	0.01	0.01	0.13	0.05	0.04	0.01	0.01	37.36	0.01	0.84	0.02	0.40	0.60	0.19	0.006	0.011	0.27	0.93	13.87	0.000	0.001	0.26	0.03	0.26	0.005	0.11	0.00	0.03	10.64	0.03	1.63	2.17	0.21	30.55	0.04	0.532	0.003	0.81	0.28	2.27	0.11
2020 Feb	Mean	125.40	149.88	0.01	0.01	0.14	0.05	0.04	0.01	0.01	38.31	0.01	0.87	0.05	0.41	0.62	0.20	0.007	0.011	0.28	0.95	14.23	0.000	0.001	0.27	0.03	0.34	0.005	0.11	0.00	0.03	10.90	0.04	1.78	2.23	0.22	31.71	0.04	0.545	0.003	0.84	0.29	2.34	0.11
2020 Mar	Mean	116.49	139.23	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.58	0.01	0.80	0.07	0.38	0.58	0.18	0.006	0.010	0.26	0.88	13.21	0.000	0.001	0.25	0.03	0.39	0.005	0.10	0.00	0.03	10.13	0.04	1.75	2.07	0.20	29.79	0.04	0.506	0.003	0.78	0.27	2.20	0.10
2020 Apr	Mean	109.45	130.82	0.00	0.01	0.12	0.05	0.03	0.01	0.00	33.44	0.01	0.76	0.07	0.36	0.55	0.17	0.006	0.010	0.24	0.83	12.42	0.000	0.001	0.24	0.03	0.38	0.005	0.10	0.00	0.03	9.52	0.03	1.63	1.95	0.19	27.95	0.04	0.476	0.003	0.73	0.25	2.14	0.10
2020 May	Mean	113.25	135.36	0.00	0.01	0.12	0.05	0.04	0.01	0.00	34.60	0.01	0.78	0.09	0.37	0.57	0.18	0.006	0.010	0.25	0.86	12.85	0.000	0.001	0.24	0.03	0.44	0.005	0.10	0.00	0.03	9.85	0.04	1.74	2.01	0.20	29.11	0.04	0.492	0.003	0.76	0.26	2.25	0.10
2020 Jun	Mean	114.96	137.41	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.12	0.01	0.79	0.13	0.38	0.57	0.18	0.006	0.010	0.25	0.87	13.04	0.000	0.001	0.25	0.03	0.53	0.005	0.10	0.00	0.03	10.00	0.04	1.92	2.04	0.20	30.08	0.04	0.500	0.003	0.78	0.27	2.21	0.10
2020 Jul	Mean	115.46	138.00	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.27	0.01	0.80	0.18	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.10	0.001	0.001	0.25	0.03	0.65	0.005	0.10	0.00	0.03	10.04	0.05	2.11	2.05	0.20	30.81	0.04	0.502	0.003	0.79	0.27	2.22	0.10
2020 Aug	Mean	115.63	138.20	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.32	0.02	0.80	0.20	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.12	0.001	0.001	0.25	0.03	0.71	0.005	0.10	0.00	0.03	10.06	0.05	2.21	2.06	0.20	31.19	0.04	0.503	0.003	0.79	0.27	2.22	0.10
2020 Sep	Mean	115.34	137.86	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.24	0.02	0.80	0.21	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.08	0.001	0.001	0.25	0.03	0.73	0.005	0.10	0.00	0.03	10.03	0.05	2.24	2.05	0.20	31.27	0.04	0.501	0.003	0.79	0.27	2.21	0.10
2020 Oct	Mean	115.37	137.89	0.01	0.01	0.13	0.05	0.04	0.01	0.01	35.24	0.02	0.80	0.24	0.38	0.58	0.18	0.006	0.010	0.25	0.88	13.09	0.001	0.001	0.25	0.03	0.82	0.005	0.10	0.00	0.03	10.03	0.05	2.37	2.05	0.20	31.70	0.04	0.502	0.003	0.79	0.27	2.22	0.10
2020 Nov	Mean	118.18	141.25	0.01	0.01	0.14	0.05	0.04	0.02	0.01	36.10	0.02	0.82	0.34	0.39	0.60	0.18	0.006	0.010	0.26	0.90	13.41	0.001	0.001	0.26	0.03	1.07	0.005	0.10	0.00	0.03	10.28	0.06	2.77	2.10	0.21	33.64	0.04	0.514	0.003	0.82	0.28	2.30	0.10
2020 Dec	Mean	123.88	148.07	0.01	0.01	0.15	0.05	0.04	0.02	0.01	37.84	0.02	0.86	0.58	0.41	0.64	0.19	0.007	0.011	0.27	0.94	14.05	0.001	0.002	0.27	0.03	1.68	0.005	0.11	0.00	0.04	10.77	0.09	3.73	2.20	0.22	38.12	0.04	0.539	0.004	0.89	0.29	2.46	0.11
2021 Jan	Mean	126.88	151.65	0.01	0.01	0.17	0.06	0.04	0.03	0.01	38.76	0.03	0.88	1.08	0.42	0.68	0.20	0.007	0.011	0.28	0.96	14.39	0.002	0.002	0.27	0.03	2.95	0.006	0.11	0.00	0.04	11.03	0.14	5.64	2.26	0.22	45.30	0.04	0.552	0.004	0.97	0.30	2.65	0.11
2021 Feb	Mean	123.00	147.02	0.01	0.01	0.17	0.05	0.04	0.03	0.01	37.58	0.04	0.85	1.54	0.41	0.68	0.19	0.007	0.011	0.27	0.93	13.95	0.003	0.003	0.27	0.03	4.12	0.005	0.11	0.00	0.04	10.70	0.19	7.34	2.19	0.21	50.36	0.04	0.535	0.004	1.00	0.30	2.71	0.11
2021 Mar	Mean	113.17	135.27	0.01	0.01	0.15	0.05	0.04	0.03	0.00	34.57	0.03	0.78	1.06	0.38	0.61	0.18	0.006	0.010	0.25	0.86	12.84	0.002	0.002	0.24	0.03	2.88	0.005	0.10	0.00	0.04	9.85	0.13	5.38	2.01	0.20	41.63	0.04	0.492	0.004	0.88	0.27	2.45	0.10
2021 Apr	Mean	107.79	128.88	0.01	0.01	0.13	0.05	0.04	0.02	0.00	32.94	0.02	0.75	0.41	0.36	0.56	0.17	0.006	0.009	0.24	0.82	12.24	0.001	0.001	0.23	0.02	1.25	0.005	0.09	0.00	0.03	9.40	0.07	2.84	1.92	0.19	31.86	0.04	0.468	0.003	0.76	0.25	2.36	0.09
2021 May	Mean	112.03	133.97	0.01	0.01	0.13	0.05	0.04	0.02	0.00	34.23	0.02	0.78	0.33	0.37	0.59	0.18	0.007	0.010	0.25	0.85	12.72	0.001	0.001	0.24	0.03	1.07	0.005	0.10	0.00	0.03	9.78	0.06	2.57	2.00	0.19	31.84	0.04	0.487	0.003	0.78	0.26	2.52	0.10
2021 Jun	Mean	114.42	136.78	0.01	0.01	0.14	0.05	0.04	0.02	0.01	34.96	0.02	0.79	0.52	0.38	0.59	0.18	0.006	0.010	0.25	0.87	12.98	0.001	0.002	0.25	0.03	1.53	0.005	0.10	0.00	0.03	9.96	0.08	3.38	2.04	0.20	35.02	0.04	0.497	0.003	0.82	0.27	2.38	0.10
2021 Jul	Mean	114.92	137.36	0.01	0.01	0.15	0.05	0.04	0.02	0.01	35.11	0.03	0.79	0.82	0.38	0.61	0.18	0.006	0.010	0.25	0.87	13.04	0.002	0.002	0.25	0.03	2.27	0.005	0.10	0.00	0.04	10.00	0.11	4.50	2.04	0.20	38.93	0.04	0.500	0.004	0.86	0.27	2.40	0.10
2021 Aug	Mean	114.94	137.39	0.01	0.01	0.15	0.05	0.04	0.03	0.01	35.11	0.03	0.79	1.04	0.38	0.62	0.18	0.006	0.010	0.25	0.87	13.04	0.002	0.002	0.25	0.03	2.82	0.005	0.10	0.00	0.04	10.00	0.13	5.33	2.04	0.20	41.79	0.04	0.500	0.004	0.89	0.28	2.45	0.10
2021 Sep	Mean	114.47	136.82	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.97	0.03	0.79	1.22	0.38	0.62	0.18	0.006	0.010	0.25	0.87	12.99	0.002	0.003	0.25	0.03	3.30	0.005	0.10	0.00	0.04	9.96	0.15	6.03	2.04	0.20	44.11	0.04	0.498	0.004	0.91	0.28	2.48	0.10
2021 Oct	Mean	114.28	136.60	0.01	0.01	0.16	0.05	0.04	0.03	0.01	34.91	0.04	0.79	1.51	0.39	0.64	0.18	0.006	0.010	0.25	0.87	12.96	0.003	0.003	0.25	0.03	4.01	0.005	0.10	0.00	0.04	9.94	0.18	7.08	2.03	0.20	47.69	0.04	0.497	0.004	0.94	0.28	2.56	0.10
2021 Nov	Mean	116.78	139.59	0.01	0.01	0.18	0.05	0.04	0.04	0.01	35.68	0.05	0.81	2.00	0.40	0.67	0.18	0.007	0.010	0.26	0.89	13.25	0.004	0.004	0.25	0.03	5.28	0.005	0.10	0.00	0.05	10.16	0.23	8.99	2.08	0.20	54.74	0.04	0.508	0.004	1.01	0.29	2.75	0.10
2021 Dec	Mean	121.94	145.75	0.01	0.01	0.21	0.06	0.05	0.06	0.01	37.25	0.07	0.84	3.13	0.42	0.75	0.19	0.007	0.011	0.27	0.93	13.83	0.006	0.005	0.26	0.03	8.14	0.005	0.11	0.00	0.06	10.61	0.34	13.27	2.17	0.21	70.54	0.04	0.530	0.005	1.18	0.31	3.14	0.11
2022 Jan	Mean	123.39	147.48	0.01	0.01	0.26	0.06	0.06	0.07	0.01	37.69	0.10	0.85	5.03	0.45	0.85	0.19	0.008	0.011	0.27	0.94	14.00	0.009	0.008	0.27	0.03	12.94	0.005	0.11	0.00	0.07	10.73	0.53	17.03	2.19	0.21	83.75	0.04	0.536	0.006	1.42	0.33	3.68	0.11
2022 Feb	Mean	118.51	141.65	0.01	0.01	0.30	0.06	0.06	0.08	0.01	36.20	0.13	0.82	6.45	0.44	0.89	0.19	0.008	0.010	0.26	0.90	13.44	0.012	0.010	0.26	0.03	16.54	0.005	0.10	0.00	0.09	10.31	0.67	18.42	2.11	0.21	87.54	0.04	0.515	0.006	1.56	0.33	3.98	0.10
2022 Mar	Mean	109.74	131.17	0.01	0.01	0.25	0.05	0.05	0.06	0.00	33.52	0.10	0.76	5.13	0.40	0.79	0.17	0.007	0.010	0.24																								

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2023 Aug	Mean	108.85	130.12	0.01	0.01	0.34	0.05	0.07	0.11	0.00	33.26	0.17	0.75	8.63	0.43	0.95	0.17	0.008	0.009	0.24	0.83	12.35	0.016	0.013	0.24	0.02	22.06	0.005	0.09	0.00	0.10	9.47	0.89	26.14	1.94	0.19	112.13	0.04	0.473	0.007	1.76	0.32	4.48	0.09
2023 Sep	Mean	108.04	129.14	0.01	0.01	0.36	0.05	0.07	0.12	0.00	33.01	0.18	0.75	9.39	0.43	0.98	0.17	0.008	0.009	0.24	0.82	12.26	0.017	0.014	0.23	0.02	23.98	0.005	0.09	0.00	0.11	9.40	0.97	28.31	1.92	0.19	119.42	0.04	0.470	0.007	1.84	0.33	4.64	0.09
2023 Oct	Mean	107.71	128.75	0.01	0.01	0.37	0.05	0.07	0.12	0.00	32.91	0.19	0.74	9.73	0.44	0.99	0.17	0.009	0.009	0.24	0.82	12.22	0.018	0.014	0.23	0.02	24.85	0.005	0.09	0.00	0.11	9.37	1.00	29.29	1.92	0.19	122.73	0.04	0.468	0.008	1.88	0.33	4.73	0.09
2023 Nov	Mean	110.20	131.73	0.01	0.01	0.37	0.05	0.07	0.13	0.00	33.67	0.19	0.76	9.83	0.44	1.01	0.17	0.009	0.010	0.24	0.84	12.50	0.018	0.015	0.24	0.03	25.11	0.005	0.10	0.00	0.11	9.59	1.01	29.61	1.96	0.19	124.34	0.04	0.479	0.008	1.91	0.33	4.84	0.10
2023 Dec	Mean	114.84	137.27	0.02	0.01	0.43	0.06	0.08	0.15	0.01	35.08	0.23	0.79	11.92	0.48	1.13	0.18	0.009	0.010	0.25	0.87	13.03	0.022	0.018	0.25	0.03	30.39	0.005	0.10	0.00	0.13	9.99	1.22	35.65	2.04	0.20	146.05	0.04	0.499	0.009	2.19	0.36	5.46	0.10
2024 Jan	Mean	114.71	137.11	0.02	0.01	0.52	0.06	0.09	0.21	0.01	35.04	0.29	0.79	15.24	0.51	1.29	0.18	0.010	0.010	0.25	0.87	13.01	0.028	0.022	0.25	0.03	38.80	0.005	0.25	0.00	0.16	9.98	1.55	49.46	2.04	0.20	193.49	0.04	0.499	0.010	2.59	0.39	6.34	0.10
2024 Feb	Mean	107.03	127.94	0.02	0.01	0.53	0.06	0.09	0.23	0.00	32.70	0.30	0.74	15.94	0.49	1.28	0.17	0.010	0.009	0.23	0.81	12.14	0.029	0.023	0.23	0.02	40.57	0.005	0.40	0.00	0.16	9.31	1.62	55.80	1.90	0.19	213.74	0.04	0.465	0.010	2.62	0.38	6.40	0.09
2024 Mar	Mean	104.07	124.43	0.01	0.01	0.38	0.05	0.07	0.16	0.00	31.80	0.20	0.72	10.41	0.43	1.02	0.16	0.009	0.009	0.23	0.79	11.81	0.019	0.015	0.22	0.02	26.58	0.005	0.31	0.00	0.12	9.07	1.06	37.32	1.85	0.18	149.66	0.03	0.452	0.008	1.94	0.33	5.10	0.09
2024 Apr	Mean	100.10	119.79	0.01	0.01	0.23	0.05	0.05	0.08	0.00	30.61	0.10	0.70	4.84	0.37	0.77	0.16	0.008	0.009	0.22	0.77	11.39	0.010	0.007	0.22	0.02	12.56	0.004	0.19	0.00	0.07	8.78	0.50	17.78	1.79	0.17	81.89	0.03	0.434	0.006	1.24	0.27	4.23	0.09
2024 May	Mean	104.30	124.86	0.01	0.01	0.21	0.05	0.05	0.07	0.00	31.90	0.09	0.73	3.78	0.38	0.76	0.16	0.009	0.009	0.23	0.80	11.87	0.008	0.006	0.23	0.02	9.92	0.005	0.17	0.00	0.06	9.17	0.40	14.11	1.86	0.18	70.23	0.03	0.452	0.005	1.14	0.27	4.24	0.09
2024 Jun	Mean	108.39	129.61	0.01	0.01	0.28	0.05	0.06	0.10	0.00	33.12	0.13	0.75	6.35	0.41	0.86	0.17	0.008	0.009	0.24	0.83	12.31	0.012	0.010	0.23	0.02	16.33	0.005	0.23	0.00	0.08	9.46	0.66	23.27	1.93	0.19	102.29	0.04	0.471	0.006	1.48	0.30	4.23	0.09
2024 Jul	Mean	107.51	128.52	0.01	0.01	0.37	0.05	0.07	0.15	0.00	32.85	0.18	0.74	9.58	0.43	0.99	0.17	0.009	0.009	0.24	0.82	12.20	0.018	0.014	0.23	0.02	24.48	0.005	0.30	0.00	0.11	9.36	0.98	34.55	1.91	0.19	140.79	0.04	0.467	0.008	1.86	0.33	4.83	0.09
2024 Aug	Mean	106.36	127.15	0.02	0.01	0.41	0.05	0.07	0.17	0.00	32.50	0.22	0.74	11.31	0.44	1.07	0.17	0.009	0.009	0.23	0.81	12.07	0.021	0.017	0.23	0.02	28.85	0.005	0.33	0.00	0.12	9.26	1.16	40.55	1.89	0.18	161.18	0.04	0.462	0.008	2.06	0.34	5.22	0.09
2024 Sep	Mean	105.27	125.83	0.02	0.01	0.43	0.05	0.08	0.18	0.00	32.16	0.23	0.73	12.18	0.45	1.10	0.16	0.009	0.009	0.23	0.80	11.94	0.022	0.018	0.23	0.02	31.05	0.005	0.35	0.00	0.13	9.16	1.24	43.58	1.87	0.18	171.36	0.04	0.458	0.009	2.16	0.34	5.39	0.09
2024 Oct	Mean	104.74	125.21	0.02	0.01	0.43	0.05	0.08	0.19	0.00	32.00	0.23	0.72	12.36	0.45	1.11	0.16	0.009	0.009	0.23	0.80	11.89	0.023	0.018	0.23	0.02	31.50	0.005	0.35	0.00	0.13	9.12	1.26	44.18	1.86	0.18	173.33	0.03	0.455	0.009	2.18	0.34	5.46	0.09
2024 Nov	Mean	107.03	127.95	0.02	0.01	0.44	0.05	0.08	0.19	0.00	32.70	0.24	0.74	12.60	0.46	1.13	0.17	0.009	0.009	0.23	0.81	12.15	0.023	0.018	0.23	0.02	32.13	0.005	0.36	0.00	0.14	9.32	1.29	45.04	1.90	0.19	176.78	0.04	0.465	0.009	2.22	0.35	5.61	0.09
2024 Dec	Mean	109.33	130.69	0.02	0.01	0.52	0.06	0.09	0.23	0.00	33.40	0.29	0.76	15.39	0.49	1.27	0.17	0.010	0.010	0.24	0.83	12.41	0.028	0.022	0.24	0.03	39.18	0.005	0.42	0.00	0.16	9.52	1.57	54.74	1.94	0.19	210.58	0.04	0.475	0.010	2.57	0.38	6.34	0.10
2025 Jan	Mean	112.24	134.16	0.02	0.01	0.48	0.06	0.09	0.18	0.00	34.29	0.26	0.78	13.86	0.49	1.21	0.18	0.010	0.010	0.25	0.85	12.73	0.025	0.019	0.24	0.03	35.57	0.005	0.82	0.00	0.15	9.76	1.42	40.61	2.00	0.20	170.51	0.04	0.488	0.010	2.25	0.37	5.92	0.10
2025 Feb	Mean	112.77	134.78	0.02	0.01	0.47	0.06	0.08	0.16	0.00	34.45	0.25	0.78	13.33	0.48	1.19	0.18	0.010	0.010	0.25	0.86	12.79	0.024	0.018	0.24	0.03	34.31	0.005	0.94	0.00	0.14	9.81	1.38	35.70	2.00	0.20	156.43	0.04	0.490	0.009	2.13	0.37	5.78	0.10
2025 Mar	Mean	110.18	131.69	0.02	0.01	0.44	0.06	0.08	0.14	0.00	33.66	0.24	0.76	12.35	0.47	1.13	0.17	0.009	0.010	0.24	0.84	12.50	0.023	0.016	0.24	0.03	31.85	0.005	0.91	0.00	0.14	9.58	1.28	32.04	1.96	0.19	143.48	0.04	0.479	0.009	1.99	0.36	5.46	0.10
2025 Apr	Mean	606.90	726.29	0.04	0.05	1.13	0.28	0.25	0.26	0.03	185.57	0.44	4.22	18.35	2.14	4.15	0.96	0.044	0.054	1.34	4.65	69.03	0.038	0.026	1.31	0.14	49.02	0.026	1.70	0.00	0.32	53.24	1.93	50.72	10.84	1.05	315.54	0.20	2.632	0.029	5.85	1.56	21.02	0.53
2025 May	Mean	5191.39	6215.58	0.28	0.39	7.31	2.33	1.84	1.25	0.23	1587.87	2.21	36.22	66.90	17.59	31.88	8.20	0.368	0.460	11.45	39.96	591.11	0.172	0.112	11.22	1.21	190.78	0.225	8.43	0.00	1.93	456.88	7.26	209.05	92.84	8.98	1847.83	1.74	22.497	0.212	40.79	12.68	165.94	4.50
2025 Jun	Mean	2031.46	2431.10	0.11	0.15	2.77	0.91	0.71	0.44	0.09	621.14	0.76	14.13	22.51	6.84	12.02	3.20	0.136	0.179	4.48	15.58	231.07	0.057	0.040	4.39	0.47	64.37	0.088	3.08	0.00	0.72	178.20	2.54	74.11	36.27	3.52	692.45	0.68	8.811	0.078	15.61	4.92	59.55	1.76
2025 Jul	Mean	111.46	133.23	0.01	0.01	0.26	0.05	0.05	0.07	0.00	34.05	0.11	0.77	5.39	0.41	0.81	0.17	0.007	0.010	0.24	0.85	12.64	0.010	0.008	0.24	0.03	14.02	0.005	0.47	0.00	0.07	9.70	0.57	14.96	1.98	0.19	78.82	0.04	0.485	0.006	1.29	0.30	3.60	0.10
2025 Aug	Mean	110.09	131.58	0.01	0.01	0.31	0.05	0.06	0.09	0.00	33.63	0.14	0.76	7.11	0.42	0.88	0.17	0.008	0.010	0.24	0.84	12.49	0.013	0.010	0.24	0.03	18.39	0.005	0.60	0.00	0.09	9.57	0.75	19.55	1.96	0.19	95.61	0.04	0.479	0.006	1.46	0.31	4.02	0.10
2025 Sep	Mean	109.10	130.40	0.01	0.01	0.32	0.05	0.06	0.10	0.00	33.33	0.15	0.75	7.86	0.42	0.91	0.17	0.008	0.009	0.24	0.83	12.38	0.014	0.011	0.24	0.02	20.32	0.005	0.66	0.00	0.10	9.49	0.82	21.78	1.94	0.19	103.52	0.04	0.474	0.007	1.54	0.32	4.21	0.09
2025 Oct	Mean	193.84	231.72	0.02	0.01	0.50	0.09	0.10	0.14																																			

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ultimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)
2027 Mar	Mean	135.80	162.42	0.02	0.01	0.63	0.07	0.11	0.20	0.01	41.50	0.36	0.94	17.90	0.61	1.59	0.21	0.013	0.012	0.30	1.04	15.43	0.034	0.024	0.29	0.03	46.11	0.006	2.10	0.00	0.20	11.86	1.90	43.92	2.42	0.24	190.88	0.05	0.590	0.013	2.86	0.47	8.03	0.12
2027 Apr	Mean	218.28	261.42	0.03	0.02	0.68	0.11	0.13	0.19	0.01	66.78	0.36	1.53	16.45	0.86	2.04	0.35	0.019	0.019	0.48	1.68	24.87	0.033	0.022	0.47	0.05	43.06	0.009	1.95	0.00	0.20	19.25	1.73	39.96	3.91	0.38	193.61	0.07	0.945	0.016	3.20	0.65	10.69	0.19
2027 May	Mean	4674.44	5608.78	0.27	0.40	7.45	2.15	1.75	1.43	0.20	1432.02	3.27	33.01	92.62	16.20	33.39	7.46	0.387	0.425	10.39	36.58	534.75	0.247	0.129	10.11	1.11	269.65	0.202	11.52	0.00	2.04	417.54	8.76	221.02	84.21	8.04	1793.06	1.58	20.174	0.235	39.42	11.85	190.81	4.03
2027 Jun	Mean	3094.33	3710.14	0.18	0.25	4.77	1.41	1.14	0.88	0.13	947.45	1.93	21.76	54.89	10.65	21.15	4.92	0.242	0.279	6.86	24.08	353.43	0.144	0.080	6.69	0.73	159.44	0.134	7.25	0.00	1.29	275.04	5.34	137.99	55.61	5.33	1150.76	1.04	13.373	0.146	25.57	7.77	116.17	2.67
2027 Jul	Mean	165.25	197.68	0.02	0.01	0.42	0.08	0.08	0.11	0.01	50.51	0.19	1.15	8.87	0.62	1.30	0.26	0.012	0.015	0.36	1.26	18.78	0.018	0.013	0.36	0.04	23.18	0.007	1.13	0.00	0.12	14.45	0.95	22.85	2.95	0.29	118.02	0.06	0.717	0.009	2.06	0.46	6.24	0.14
2027 Aug	Mean	107.43	128.42	0.01	0.01	0.40	0.05	0.07	0.11	0.00	32.82	0.20	0.74	10.24	0.44	1.04	0.17	0.009	0.009	0.24	0.82	12.19	0.020	0.014	0.23	0.02	26.36	0.005	1.26	0.00	0.12	9.35	1.10	25.86	1.91	0.19	117.25	0.04	0.467	0.008	1.84	0.34	4.96	0.09
2027 Sep	Mean	141.59	169.37	0.02	0.01	0.52	0.07	0.09	0.15	0.01	43.28	0.27	0.98	13.41	0.58	1.40	0.22	0.012	0.012	0.31	1.08	16.09	0.026	0.019	0.31	0.03	34.69	0.006	1.64	0.00	0.16	12.38	1.43	33.58	2.52	0.25	152.86	0.05	0.615	0.011	2.40	0.44	6.96	0.12
2027 Oct	Mean	108.36	129.52	0.02	0.01	0.42	0.05	0.08	0.13	0.00	33.10	0.22	0.75	11.25	0.45	1.09	0.17	0.009	0.009	0.24	0.82	12.29	0.021	0.016	0.23	0.02	28.95	0.005	1.38	0.00	0.13	9.43	1.21	28.31	1.93	0.19	126.47	0.04	0.471	0.008	1.95	0.35	5.27	0.09
2027 Nov	Mean	109.51	130.89	0.02	0.01	0.47	0.06	0.08	0.14	0.00	33.45	0.26	0.76	12.94	0.47	1.18	0.17	0.010	0.010	0.24	0.83	12.42	0.025	0.018	0.24	0.03	33.26	0.005	1.58	0.00	0.14	9.52	1.38	32.39	1.95	0.19	141.80	0.04	0.476	0.009	2.15	0.36	5.75	0.10
2027 Dec	Mean	111.92	133.77	0.02	0.01	0.57	0.06	0.10	0.18	0.00	34.19	0.32	0.77	16.55	0.51	1.37	0.18	0.011	0.010	0.25	0.85	12.70	0.031	0.023	0.24	0.03	42.51	0.005	2.00	0.00	0.18	9.73	1.76	41.14	1.99	0.19	174.59	0.04	0.487	0.011	2.56	0.40	6.82	0.10
2028 Jan	Mean	111.53	133.30	0.02	0.01	0.63	0.06	0.11	0.21	0.00	34.07	0.37	0.77	18.84	0.53	1.48	0.17	0.011	0.010	0.24	0.85	12.65	0.036	0.026	0.24	0.03	48.33	0.005	2.44	0.00	0.20	9.70	2.00	48.68	1.98	0.19	201.27	0.04	0.485	0.012	2.82	0.42	7.45	0.10
2028 Feb	Mean	109.46	130.83	0.02	0.01	0.64	0.06	0.11	0.22	0.00	33.44	0.37	0.76	19.18	0.53	1.49	0.17	0.011	0.010	0.24	0.83	12.42	0.036	0.026	0.24	0.03	49.17	0.005	2.67	0.00	0.20	9.52	2.03	51.56	1.95	0.19	210.34	0.04	0.476	0.012	2.86	0.41	7.50	0.10
2028 Mar	Mean	106.05	126.76	0.02	0.01	0.61	0.06	0.10	0.22	0.00	32.40	0.35	0.73	18.33	0.51	1.43	0.17	0.011	0.009	0.23	0.81	12.03	0.035	0.025	0.23	0.02	46.99	0.005	2.62	0.00	0.19	9.22	1.94	49.97	1.89	0.18	203.55	0.04	0.461	0.012	2.74	0.40	7.19	0.09
2028 Apr	Mean	164.24	196.59	0.02	0.02	0.63	0.08	0.11	0.21	0.01	50.23	0.35	1.14	16.70	0.69	1.74	0.26	0.016	0.015	0.36	1.26	18.69	0.033	0.023	0.35	0.04	43.44	0.007	2.39	0.00	0.19	14.43	1.74	45.27	2.93	0.28	198.38	0.06	0.712	0.014	2.90	0.52	9.33	0.14
2028 May	Mean	4184.19	5024.93	0.25	0.43	7.38	1.95	1.62	1.75	0.18	1282.65	4.31	29.69	114.20	14.75	34.89	6.71	0.427	0.384	9.33	32.96	479.58	0.324	0.136	9.05	1.00	340.21	0.181	13.44	0.00	2.09	375.98	9.31	249.03	75.60	7.18	1784.29	1.41	18.028	0.269	37.12	10.97	230.23	3.61
2028 Jun	Mean	1974.93	2370.01	0.12	0.19	3.34	0.91	0.75	0.76	0.08	605.08	1.81	13.96	48.02	6.90	15.59	3.15	0.188	0.180	4.39	15.47	226.00	0.135	0.060	4.27	0.47	142.76	0.085	5.96	0.00	0.93	176.58	4.02	109.65	35.59	3.40	810.38	0.67	8.521	0.117	17.09	5.11	98.88	1.70
2028 Jul	Mean	108.45	129.65	0.01	0.01	0.35	0.05	0.07	0.11	0.00	33.13	0.18	0.75	8.72	0.43	0.97	0.17	0.008	0.009	0.24	0.83	12.31	0.017	0.012	0.23	0.02	22.48	0.005	1.34	0.00	0.11	9.44	0.93	25.13	1.93	0.19	112.77	0.04	0.471	0.007	1.69	0.32	4.64	0.09
2028 Aug	Mean	114.39	136.76	0.02	0.01	0.44	0.06	0.08	0.15	0.01	34.95	0.24	0.79	11.89	0.48	1.16	0.18	0.010	0.010	0.25	0.87	12.98	0.023	0.017	0.25	0.03	30.59	0.005	1.81	0.00	0.14	9.96	1.26	34.07	2.04	0.20	146.08	0.04	0.497	0.009	2.09	0.36	5.66	0.10
2028 Sep	Mean	140.32	167.88	0.02	0.01	0.51	0.07	0.09	0.17	0.01	42.90	0.28	0.97	13.50	0.58	1.42	0.22	0.013	0.012	0.31	1.07	15.95	0.026	0.019	0.30	0.03	34.96	0.006	2.02	0.00	0.16	12.29	1.41	38.04	2.50	0.24	165.99	0.05	0.609	0.011	2.42	0.44	7.29	0.12
2028 Oct	Mean	152.81	183.06	0.02	0.02	0.57	0.08	0.10	0.19	0.01	46.76	0.33	1.07	15.06	0.63	1.64	0.24	0.015	0.014	0.34	1.18	17.42	0.030	0.020	0.33	0.04	39.38	0.007	2.20	0.00	0.17	13.50	1.54	41.41	2.74	0.26	181.04	0.05	0.662	0.013	2.65	0.48	9.13	0.13
2028 Nov	Mean	109.13	130.44	0.02	0.01	0.49	0.06	0.09	0.17	0.00	33.34	0.27	0.75	13.80	0.48	1.22	0.17	0.010	0.009	0.24	0.83	12.38	0.026	0.019	0.24	0.02	35.40	0.005	2.07	0.00	0.15	9.49	1.46	39.03	1.94	0.19	163.29	0.04	0.474	0.010	2.27	0.37	5.96	0.09
2028 Dec	Mean	112.01	133.88	0.02	0.01	0.59	0.06	0.10	0.21	0.00	34.22	0.34	0.77	17.40	0.52	1.41	0.18	0.011	0.010	0.25	0.85	12.71	0.033	0.024	0.24	0.03	44.60	0.005	2.58	0.00	0.18	9.74	1.84	48.79	1.99	0.19	199.33	0.04	0.487	0.011	2.69	0.40	7.02	0.10
2029 Jan	Mean	111.20	132.91	0.02	0.01	0.66	0.06	0.11	0.24	0.00	33.97	0.38	0.77	20.01	0.54	1.53	0.17	0.012	0.010	0.24	0.84	12.61	0.038	0.027	0.24	0.03	51.31	0.005	3.01	0.00	0.21	9.67	2.10	56.55	1.98	0.19	227.86	0.04	0.483	0.013	2.96	0.42	7.73	0.10
2029 Feb	Mean	108.62	129.83	0.02	0.01	0.68	0.06	0.11	0.26	0.00	33.18	0.40	0.75	20.80	0.54	1.55	0.17	0.012	0.009	0.24	0.83	12.32	0.039	0.028	0.23	0.02	53.36	0.005	3.18	0.00	0.21	9.45	2.18	59.31	1.93	0.19	237.91	0.04	0.472	0.013	3.01	0.42	7.89	0.09
2029 Mar	Mean	104.98	125.48	0.02	0.01	0.66	0.06	0.11	0.25	0.00	32.07	0.39	0.73	20.16	0.52	1.50	0.16	0.011	0.009	0.23	0.80	11.91	0.038	0.027	0.23	0.02	51.74	0.005	3.11	0.00	0.21	9.13	2.11	57.73	1.87	0.18	231.58	0.04	0.456	0.012	2.91	0.41	7.64	0.09
2029 Apr	Mean	267.47	320.79	0.03	0.03	0.93	0.14	0.17	0.32	0.01	81.91	0.55	1.88	24.36	1.09	2.88	0.43	0.029	0.024	0.59	2.09	30.57	0.050	0.032	0.58	0.06	64.43	0.012	3.64	0.00	0.29	23.82	2.44	67.37	4.81	0.46	300.88	0.09	1.155	0.023	4.33	0.83	17.04	0.23
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Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
2030 Oct	Mean	105.05	125.56	0.02	0.01	0.46	0.05	0.08	0.18	0.00	32.09	0.25	0.73	12.89	0.46	1.15	0.16	0.009	0.009	0.23	0.80	11.92	0.024	0.018	0.23	0.02	33.09	0.005	2.27	0.00	0.14	9.14	1.36	41.97	1.87	0.18	172.32	0.04	0.457	0.009	2.13	0.35	5.64	0.09
2030 Nov	Mean	108.58	129.78	0.02	0.01	0.51	0.06	0.09	0.20	0.00	33.17	0.29	0.75	14.67	0.49	1.26	0.17	0.010	0.009	0.24	0.82	12.32	0.028	0.020	0.23	0.02	37.66	0.005	2.57	0.00	0.16	9.44	1.55	47.48	1.93	0.19	193.05	0.04	0.472	0.010	2.36	0.37	6.20	0.09
2030 Dec	Mean	111.32	133.06	0.02	0.01	0.62	0.06	0.10	0.26	0.00	34.01	0.36	0.77	18.55	0.53	1.46	0.17	0.011	0.010	0.24	0.85	12.63	0.035	0.025	0.24	0.03	47.55	0.005	3.22	0.00	0.19	9.68	1.95	59.67	1.98	0.19	237.57	0.04	0.484	0.012	2.81	0.41	7.33	0.10
2031 Jan	Mean	110.45	132.01	0.03	0.01	0.69	0.06	0.11	0.30	0.00	33.74	0.41	0.76	21.21	0.55	1.59	0.17	0.012	0.010	0.24	0.84	12.53	0.040	0.029	0.24	0.03	54.33	0.005	3.74	0.00	0.22	9.60	2.24	70.95	1.96	0.19	269.36	0.04	0.480	0.013	3.10	0.43	8.08	0.10
2031 Feb	Mean	107.71	128.74	0.03	0.01	0.71	0.06	0.12	0.33	0.00	32.90	0.42	0.74	21.96	0.55	1.61	0.17	0.012	0.009	0.24	0.82	12.22	0.041	0.030	0.23	0.02	56.23	0.005	3.94	0.00	0.23	9.37	2.32	76.40	1.91	0.19	279.42	0.04	0.468	0.014	3.17	0.43	8.26	0.09
2031 Mar	Mean	104.08	124.40	0.03	0.01	0.69	0.06	0.11	0.32	0.00	31.80	0.41	0.72	21.10	0.53	1.56	0.16	0.012	0.009	0.23	0.79	11.81	0.040	0.029	0.22	0.02	54.01	0.005	3.81	0.00	0.22	9.05	2.23	74.42	1.85	0.18	269.13	0.03	0.453	0.013	3.05	0.42	7.95	0.09
2031 Apr	Mean	232.13	278.25	0.03	0.03	0.78	0.12	0.14	0.31	0.01	71.06	0.45	1.63	19.69	0.94	2.43	0.37	0.025	0.021	0.51	1.80	26.50	0.042	0.027	0.50	0.05	51.91	0.010	3.46	0.00	0.24	20.60	2.01	67.47	4.17	0.40	272.52	0.08	1.004	0.020	3.65	0.71	15.00	0.20
2031 May	Mean	4213.39	5057.67	0.26	0.45	7.32	1.96	1.64	2.05	0.18	1291.16	4.00	29.82	111.01	14.86	34.70	6.74	0.453	0.385	9.38	33.07	482.44	0.330	0.142	9.11	1.01	325.05	0.182	17.21	0.00	2.13	377.42	9.71	327.33	76.01	7.24	1987.25	1.42	18.169	0.274	37.91	10.92	246.61	3.63
2031 Jun	Mean	2382.31	2858.05	0.14	0.24	4.00	1.10	0.91	1.07	0.10	729.74	2.06	16.81	57.04	8.34	18.77	3.80	0.241	0.216	5.29	18.62	272.44	0.168	0.075	5.15	0.57	166.89	0.103	9.12	0.00	1.15	212.58	5.08	172.83	42.89	4.10	1080.00	0.80	10.284	0.145	20.95	6.11	128.78	2.06
2031 Jul	Mean	132.36	158.29	0.02	0.01	0.44	0.07	0.08	0.18	0.01	40.45	0.22	0.92	10.96	0.53	1.23	0.21	0.011	0.012	0.29	1.01	15.03	0.021	0.015	0.29	0.03	28.31	0.006	2.06	0.00	0.13	11.55	1.16	40.21	2.36	0.23	159.61	0.04	0.575	0.009	2.10	0.40	6.13	0.11
2031 Aug	Mean	105.42	126.02	0.02	0.01	0.46	0.05	0.08	0.20	0.00	32.21	0.25	0.73	12.79	0.46	1.15	0.17	0.009	0.009	0.23	0.80	11.96	0.024	0.018	0.23	0.02	32.81	0.005	2.40	0.00	0.14	9.18	1.36	46.86	1.88	0.18	175.72	0.04	0.458	0.009	2.14	0.35	5.68	0.09
2031 Sep	Mean	105.57	126.20	0.02	0.01	0.50	0.06	0.09	0.22	0.00	32.25	0.28	0.73	14.10	0.47	1.22	0.17	0.010	0.009	0.23	0.80	11.98	0.027	0.020	0.23	0.02	36.16	0.005	2.64	0.00	0.15	9.19	1.49	51.59	1.88	0.18	191.27	0.04	0.459	0.010	2.29	0.36	6.05	0.09
2031 Oct	Mean	103.69	123.95	0.02	0.01	0.50	0.06	0.09	0.23	0.00	31.68	0.28	0.72	14.44	0.47	1.22	0.16	0.010	0.009	0.23	0.79	11.76	0.027	0.020	0.22	0.02	37.00	0.005	2.70	0.00	0.16	9.02	1.53	52.83	1.84	0.18	194.91	0.03	0.451	0.010	2.31	0.36	6.07	0.09
2031 Nov	Mean	106.92	127.80	0.02	0.01	0.56	0.06	0.10	0.26	0.00	32.66	0.32	0.74	16.51	0.50	1.34	0.17	0.010	0.009	0.23	0.81	12.13	0.031	0.023	0.23	0.02	42.28	0.005	3.09	0.00	0.18	9.30	1.74	60.44	1.90	0.19	220.45	0.04	0.465	0.011	2.57	0.39	6.70	0.09
2031 Dec	Mean	109.22	130.54	0.03	0.01	0.69	0.06	0.11	0.33	0.00	33.36	0.41	0.75	21.09	0.55	1.58	0.17	0.012	0.009	0.24	0.83	12.39	0.040	0.029	0.24	0.03	53.95	0.005	3.93	0.00	0.22	9.50	2.22	77.06	1.94	0.19	275.30	0.04	0.475	0.013	3.10	0.43	8.02	0.09
2032 Jan	Mean	108.37	129.52	0.03	0.01	0.76	0.06	0.12	0.38	0.00	33.10	0.46	0.75	23.88	0.57	1.70	0.17	0.013	0.009	0.24	0.82	12.29	0.045	0.033	0.23	0.02	61.09	0.005	4.46	0.00	0.24	9.42	2.50	89.83	1.93	0.19	307.11	0.04	0.471	0.014	3.41	0.45	8.77	0.09
2032 Feb	Mean	105.96	126.65	0.03	0.01	0.77	0.06	0.12	0.40	0.00	32.37	0.46	0.73	24.25	0.56	1.71	0.17	0.013	0.009	0.23	0.80	12.02	0.045	0.033	0.23	0.02	62.05	0.005	4.55	0.00	0.24	9.21	2.53	93.84	1.88	0.18	309.80	0.04	0.461	0.014	3.43	0.45	8.81	0.09
2032 Mar	Mean	102.69	122.74	0.03	0.01	0.73	0.06	0.12	0.38	0.00	31.37	0.44	0.71	23.16	0.54	1.64	0.16	0.012	0.009	0.23	0.78	11.65	0.043	0.032	0.22	0.02	59.27	0.004	4.34	0.00	0.23	8.93	2.42	90.40	1.83	0.18	295.37	0.03	0.446	0.014	3.28	0.43	8.44	0.09
2032 Apr	Mean	126.18	150.92	0.02	0.01	0.63	0.07	0.11	0.31	0.01	38.57	0.36	0.88	18.24	0.57	1.55	0.20	0.013	0.011	0.28	0.96	14.34	0.035	0.025	0.27	0.03	46.93	0.005	3.42	0.00	0.19	11.03	1.90	71.30	2.25	0.22	241.70	0.04	0.548	0.013	2.87	0.44	8.14	0.11
2032 May	Mean	3072.87	3688.31	0.20	0.33	5.60	1.44	1.24	1.74	0.13	941.61	3.04	21.74	91.05	10.92	25.47	4.91	0.326	0.280	6.84	24.11	351.79	0.254	0.118	6.65	0.73	261.64	0.133	14.91	0.00	1.64	275.11	8.18	301.14	55.42	5.28	1580.51	1.04	13.253	0.200	28.88	8.05	176.57	2.65
2032 Jun	Mean	1797.40	2156.40	0.11	0.18	3.14	0.83	0.71	0.93	0.08	550.58	1.62	12.68	47.67	6.33	14.29	2.87	0.181	0.163	3.99	14.05	205.57	0.134	0.063	3.89	0.43	137.46	0.078	7.95	0.00	0.90	160.42	4.31	159.71	32.37	3.09	872.92	0.61	7.759	0.110	16.36	4.65	96.52	1.55
2032 Jul	Mean	165.04	197.65	0.02	0.02	0.55	0.08	0.10	0.24	0.01	50.49	0.30	1.15	13.86	0.66	1.64	0.26	0.016	0.015	0.36	1.27	18.80	0.028	0.019	0.36	0.04	36.26	0.007	2.57	0.00	0.17	14.55	1.42	53.44	2.95	0.29	196.08	0.06	0.715	0.013	2.61	0.50	9.31	0.14
2032 Aug	Mean	119.57	142.96	0.02	0.01	0.51	0.06	0.09	0.24	0.01	36.54	0.28	0.83	14.16	0.52	1.30	0.19	0.011	0.010	0.26	0.91	13.57	0.027	0.020	0.26	0.03	36.41	0.005	2.71	0.00	0.16	10.42	1.49	56.45	2.13	0.21	194.57	0.04	0.520	0.010	2.38	0.39	6.48	0.10
2032 Sep	Mean	108.06	129.18	0.02	0.01	0.51	0.06	0.09	0.25	0.00	33.01	0.29	0.75	14.77	0.48	1.26	0.17	0.010	0.009	0.24	0.82	12.26	0.028	0.020	0.23	0.02	37.91	0.005	2.81	0.00	0.16	9.41	1.55	58.64	1.92	0.19	198.82	0.04	0.470	0.010	2.37	0.37	6.29	0.09
2032 Oct	Mean	126.51	151.31	0.02	0.01	0.56	0.07	0.10	0.27	0.01	38.67	0.31	0.88	15.70	0.55	1.43	0.20	0.012	0.011	0.28	0.97	14.37	0.030	0.022	0.27	0.03	40.46	0.005	2.97	0.00	0.17	11.06	1.64	61.90	2.25	0.22	212.72	0.04	0.549	0.011	2.59	0.42	7.44	0.11
2032 Nov	Mean	119.12	142.39	0.02	0.01	0.58	0.06	0.10	0.28	0.01	36.39	0.33	0.82	16.83	0.54	1.42	0.19	0.011	0.010	0.26	0.91	13.52	0.032	0.023	0.26	0.03	43.19	0.005	3.19	0.00	0.18	10.37	1.76	66.56	2.12	0.21	225.10	0.04	0.518	0.011	2.68	0.42	7.08	0.10
2032 Dec	Mean	109.87	131.32	0.																																								

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2034 May	Mean	3057.29	3672.34	0.19	0.35	5.61	1.44	1.20	1.74	0.13	937.34	3.60	21.72	94.38	10.86	27.22	4.91	0.348	0.281	6.82	24.12	350.57	0.272	0.106	6.61	0.74	283.33	0.132	12.77	0.00	1.62	275.10	7.26	268.53	55.28	5.24	1414.43	1.03	13.167	0.218	27.62	8.16	191.11	2.63
2034 Jun	Mean	2302.45	2762.96	0.14	0.24	3.96	1.07	0.88	1.14	0.10	705.41	2.29	16.27	60.05	8.07	18.90	3.68	0.237	0.209	5.12	18.03	263.46	0.172	0.071	4.98	0.55	180.11	0.100	8.59	0.00	1.12	205.81	4.77	178.81	41.49	3.96	996.57	0.78	9.935	0.147	20.00	6.01	125.86	1.99
2034 Jul	Mean	144.34	172.77	0.02	0.01	0.43	0.07	0.08	0.19	0.01	44.14	0.23	1.01	10.49	0.56	1.31	0.23	0.013	0.013	0.32	1.11	16.42	0.021	0.014	0.31	0.03	27.57	0.006	1.98	0.00	0.13	12.68	1.05	42.84	2.58	0.25	146.52	0.05	0.626	0.010	2.06	0.42	7.02	0.13
2034 Aug	Mean	106.63	127.46	0.02	0.01	0.42	0.05	0.08	0.21	0.00	32.58	0.22	0.74	11.52	0.45	1.08	0.17	0.009	0.009	0.23	0.81	12.10	0.021	0.016	0.23	0.02	29.70	0.005	2.24	0.00	0.13	9.28	1.19	48.59	1.90	0.19	153.41	0.04	0.463	0.008	1.96	0.34	5.27	0.09
2034 Sep	Mean	119.75	143.18	0.02	0.01	0.49	0.06	0.09	0.25	0.01	36.59	0.26	0.83	13.61	0.51	1.26	0.19	0.011	0.010	0.26	0.91	13.59	0.025	0.019	0.26	0.03	35.11	0.005	2.63	0.00	0.15	10.44	1.40	57.06	2.13	0.21	179.05	0.04	0.520	0.010	2.27	0.39	6.26	0.10
2034 Oct	Mean	107.16	128.11	0.02	0.01	0.45	0.06	0.08	0.23	0.00	32.74	0.24	0.74	12.77	0.46	1.15	0.17	0.009	0.009	0.24	0.82	12.16	0.023	0.017	0.23	0.02	32.89	0.005	2.48	0.00	0.14	9.33	1.31	53.87	1.91	0.19	167.61	0.04	0.466	0.009	2.10	0.35	5.63	0.09
2034 Nov	Mean	108.85	130.11	0.02	0.01	0.50	0.06	0.09	0.26	0.00	33.25	0.28	0.75	14.63	0.48	1.24	0.17	0.010	0.009	0.24	0.83	12.35	0.027	0.020	0.24	0.02	37.62	0.005	2.85	0.00	0.15	9.47	1.50	61.89	1.94	0.19	189.33	0.04	0.473	0.010	2.32	0.37	6.09	0.09
2034 Dec	Mean	111.77	133.59	0.02	0.01	0.61	0.06	0.10	0.34	0.00	34.14	0.35	0.77	18.74	0.53	1.45	0.17	0.011	0.010	0.25	0.85	12.68	0.034	0.025	0.24	0.03	48.12	0.005	3.64	0.00	0.19	9.72	1.92	79.19	1.99	0.19	236.18	0.04	0.486	0.012	2.79	0.41	7.25	0.10
2035 Jan	Mean	107.39	128.36	0.03	0.01	0.80	0.06	0.13	0.39	0.00	32.81	0.48	0.74	25.97	0.58	1.77	0.17	0.013	0.009	0.24	0.82	12.18	0.047	0.033	0.23	0.02	66.67	0.005	4.10	0.00	0.25	9.34	2.65	90.86	1.91	0.19	275.44	0.04	0.467	0.015	3.36	0.46	9.17	0.09
2035 Feb	Mean	100.98	120.70	0.03	0.01	0.93	0.07	0.15	0.41	0.00	30.85	0.58	0.70	31.37	0.60	2.00	0.16	0.014	0.009	0.22	0.77	11.46	0.057	0.038	0.22	0.02	80.54	0.004	4.08	0.00	0.30	8.78	3.20	92.03	1.80	0.18	288.27	0.03	0.439	0.017	3.70	0.49	10.54	0.09
2035 Mar	Mean	96.44	115.27	0.03	0.01	0.94	0.06	0.15	0.39	0.00	29.46	0.59	0.67	31.70	0.59	1.99	0.15	0.014	0.008	0.21	0.73	10.94	0.058	0.038	0.21	0.02	81.41	0.004	3.81	0.00	0.30	8.39	3.23	86.53	1.71	0.17	276.43	0.03	0.419	0.017	3.63	0.48	10.55	0.08
2035 Apr	Mean	511.37	612.56	0.06	0.06	1.79	0.26	0.32	0.61	0.02	156.47	1.06	3.58	47.53	2.09	5.50	0.81	0.056	0.046	1.13	3.95	58.29	0.097	0.056	1.11	0.12	126.06	0.022	5.39	0.00	0.55	45.16	4.66	121.06	9.16	0.88	472.44	0.17	2.214	0.045	7.61	1.60	33.16	0.44
2035 May	Mean	4915.66	5891.39	0.34	0.50	9.67	2.29	2.06	2.53	0.21	1504.64	5.41	34.49	173.80	17.58	40.98	7.80	0.494	0.441	10.88	38.13	560.94	0.437	0.200	10.63	1.16	494.31	0.213	18.68	0.00	2.78	435.62	15.45	403.36	88.21	8.48	2276.87	1.65	21.262	0.321	46.15	13.10	266.13	4.25
2035 Jun	Mean	2588.40	3101.02	0.17	0.25	4.86	1.20	1.06	1.21	0.11	792.07	2.54	18.12	81.98	9.17	20.47	4.10	0.243	0.231	5.72	20.02	295.13	0.204	0.097	5.60	0.61	232.69	0.112	9.13	0.00	1.38	228.79	7.43	195.70	46.39	4.47	1146.78	0.87	11.204	0.156	23.62	6.80	127.58	2.24
2035 Jul	Mean	160.54	192.13	0.02	0.02	0.62	0.08	0.11	0.21	0.01	49.09	0.35	1.12	16.94	0.67	1.73	0.25	0.016	0.014	0.35	1.23	18.26	0.033	0.020	0.35	0.04	44.28	0.007	1.98	0.00	0.19	14.08	1.70	44.49	2.87	0.28	167.16	0.05	0.696	0.014	2.61	0.51	9.52	0.14
2035 Aug	Mean	157.35	188.30	0.03	0.02	0.81	0.09	0.14	0.30	0.01	48.11	0.49	1.09	24.42	0.73	2.07	0.25	0.018	0.014	0.35	1.21	17.90	0.046	0.029	0.34	0.04	63.49	0.007	2.77	0.00	0.25	13.80	2.46	62.84	2.81	0.27	222.46	0.05	0.682	0.017	3.28	0.57	11.56	0.14
2035 Sep	Mean	99.24	118.63	0.02	0.01	0.65	0.06	0.11	0.25	0.00	30.32	0.39	0.69	20.63	0.50	1.48	0.16	0.011	0.009	0.22	0.75	11.26	0.038	0.025	0.21	0.02	53.07	0.004	2.44	0.00	0.21	8.64	2.11	55.36	1.76	0.17	185.70	0.03	0.431	0.012	2.59	0.40	7.59	0.09
2035 Oct	Mean	129.80	155.20	0.03	0.01	0.77	0.07	0.13	0.29	0.01	39.66	0.45	0.90	23.88	0.63	1.81	0.20	0.014	0.011	0.29	0.99	14.74	0.044	0.029	0.28	0.03	61.53	0.006	2.86	0.00	0.24	11.32	2.44	64.71	2.31	0.23	219.26	0.04	0.564	0.015	3.10	0.50	9.37	0.11
2035 Nov	Mean	101.89	121.79	0.03	0.01	0.75	0.06	0.12	0.30	0.00	31.13	0.45	0.70	24.21	0.54	1.66	0.16	0.012	0.009	0.22	0.77	11.56	0.044	0.029	0.22	0.02	62.21	0.004	2.94	0.00	0.24	8.86	2.47	66.51	1.81	0.18	217.54	0.03	0.443	0.014	2.96	0.43	8.60	0.09
2035 Dec	Mean	102.28	122.25	0.03	0.01	0.92	0.07	0.14	0.38	0.00	31.25	0.57	0.71	30.68	0.60	1.97	0.16	0.014	0.009	0.22	0.78	11.60	0.056	0.037	0.22	0.02	78.78	0.004	3.75	0.00	0.29	8.90	3.13	84.88	1.82	0.18	270.78	0.03	0.445	0.017	3.58	0.49	10.38	0.09
2036 Jan	Mean	100.43	120.03	0.04	0.01	1.02	0.07	0.16	0.43	0.00	30.68	0.64	0.69	34.62	0.63	2.15	0.16	0.015	0.009	0.22	0.76	11.39	0.063	0.041	0.22	0.02	88.87	0.004	4.20	0.00	0.33	8.73	3.53	95.28	1.79	0.17	301.27	0.03	0.437	0.019	3.94	0.51	11.43	0.09
2036 Feb	Mean	98.04	117.18	0.04	0.01	1.03	0.07	0.16	0.43	0.00	29.95	0.65	0.68	35.04	0.63	2.16	0.15	0.015	0.009	0.22	0.74	11.12	0.064	0.042	0.21	0.02	89.97	0.004	4.18	0.00	0.33	8.53	3.57	95.01	1.74	0.17	301.45	0.03	0.426	0.019	3.95	0.51	11.50	0.09
2036 Mar	Mean	94.93	113.47	0.04	0.01	0.99	0.06	0.15	0.41	0.00	29.00	0.62	0.66	33.56	0.60	2.07	0.15	0.014	0.008	0.21	0.72	10.77	0.061	0.040	0.21	0.02	86.18	0.004	3.97	0.00	0.32	8.26	3.42	90.32	1.69	0.17	287.67	0.03	0.413	0.018	3.78	0.49	11.04	0.08
2036 Apr	Mean	404.36	483.30	0.07	0.05	1.87	0.21	0.32	0.69	0.02	123.52	1.13	2.79	54.83	1.79	5.02	0.63	0.046	0.035	0.89	3.07	45.87	0.107	0.065	0.87	0.09	143.39	0.018	6.39	0.00	0.58	35.16	5.46	144.30	7.19	0.70	513.68	0.13	1.758	0.042	7.66	1.39	29.36	0.35
2036 May	Mean	4740.29	5665.68	0.33	0.46	9.29	2.17	1.98	2.48	0.21	1448.06	5.13	32.75	167.15	16.79	38.21	7.42	0.460	0.412	10.40	36.01	537.71	0.416	0.194	10.24	1.09	473.67	0.206	18.56	0.00	2.64	412.20	14.96	400.93	84.27	8.24	2194.90	1.58	20.610	0.305	44.21	12.52	248.00	4.12
2036 Jun	Mean	1823.56	2179.55	0.12	0.17	3.38	0.83	0.74	0.86	0.08	557.06	1.75	12.60	56.56	6.40	13.97	2.85	0.166	0.159	4.00	13.85	206.86	0.140	0.068	3.94	0.42	160.42	0.079	6.50	0.00	0.95	158.57	5.14	139.14	32.42	3.17	799.08	0.61	7.929	0.109	16.43	4.75	87.	

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2037 Dec	Mean	104.35	124.72	0.03	0.01	0.85	0.06	0.14	0.32	0.00	31.88	0.52	0.72	28.14	0.59	1.86	0.16	0.013	0.009	0.23	0.79	11.84	0.051	0.033	0.23	0.02	72.36	0.005	3.04	0.00	0.27	9.07	2.88	69.93	1.86	0.18	235.85	0.03	0.454	0.016	3.28	0.47	9.73	0.09
2038 Jan	Mean	102.71	122.76	0.03	0.01	0.95	0.07	0.15	0.36	0.00	31.38	0.59	0.71	31.94	0.61	2.04	0.16	0.014	0.009	0.23	0.78	11.65	0.058	0.037	0.22	0.02	82.10	0.004	3.42	0.00	0.31	8.93	3.26	78.77	1.83	0.18	263.03	0.03	0.447	0.018	3.62	0.50	10.74	0.09
2038 Feb	Mean	100.09	119.63	0.04	0.01	0.97	0.07	0.15	0.37	0.00	30.58	0.60	0.69	32.64	0.61	2.06	0.16	0.015	0.009	0.22	0.76	11.35	0.060	0.038	0.22	0.02	83.89	0.004	3.46	0.00	0.31	8.70	3.33	79.86	1.78	0.17	266.51	0.03	0.435	0.018	3.66	0.50	10.89	0.09
2038 Mar	Mean	96.90	115.81	0.03	0.01	0.93	0.06	0.14	0.35	0.00	29.60	0.58	0.67	31.37	0.59	1.98	0.15	0.014	0.008	0.21	0.74	10.99	0.057	0.037	0.21	0.02	80.63	0.004	3.30	0.00	0.30	8.43	3.20	76.13	1.72	0.17	255.12	0.03	0.421	0.017	3.51	0.48	10.48	0.08
2038 Apr	Mean	252.07	301.28	0.04	0.03	1.09	0.13	0.19	0.37	0.01	77.00	0.67	1.74	31.49	1.09	3.05	0.39	0.029	0.022	0.55	1.91	28.59	0.062	0.036	0.54	0.06	82.82	0.011	3.23	0.00	0.34	21.92	3.12	73.91	4.48	0.44	281.68	0.08	1.096	0.026	4.43	0.85	18.28	0.22
2038 May	Mean	4929.77	5892.15	0.34	0.48	9.49	2.25	2.04	2.35	0.22	1505.94	5.20	34.06	166.76	17.41	39.34	7.72	0.474	0.429	10.81	37.44	559.21	0.419	0.191	10.65	1.13	474.51	0.214	16.62	0.00	2.68	428.68	14.89	360.80	87.64	8.57	2157.74	1.64	21.434	0.313	45.00	12.97	254.87	4.29
2038 Jun	Mean	2352.93	2812.26	0.15	0.21	4.26	1.07	0.94	0.99	0.10	718.77	2.15	16.26	68.54	8.22	17.70	3.68	0.210	0.205	5.16	17.87	266.90	0.171	0.081	5.08	0.54	195.14	0.102	7.16	0.00	1.18	204.60	6.24	153.62	41.83	4.09	971.33	0.78	10.230	0.136	20.69	6.09	109.47	2.05
2038 Jul	Mean	247.89	296.28	0.03	0.03	0.86	0.12	0.16	0.27	0.01	75.72	0.50	1.71	22.96	1.00	2.58	0.39	0.026	0.022	0.54	1.88	28.12	0.046	0.027	0.54	0.06	60.74	0.011	2.33	0.00	0.26	21.56	2.27	53.02	4.41	0.43	217.50	0.08	1.078	0.021	3.63	0.77	15.21	0.22
2038 Aug	Mean	102.31	122.28	0.02	0.01	0.56	0.06	0.09	0.19	0.00	31.25	0.32	0.71	17.11	0.48	1.33	0.16	0.010	0.009	0.22	0.78	11.61	0.031	0.020	0.22	0.02	44.09	0.004	1.80	0.00	0.18	8.90	1.76	41.26	1.82	0.18	149.67	0.03	0.445	0.011	2.24	0.38	6.70	0.09
2038 Sep	Mean	102.35	122.34	0.02	0.01	0.61	0.06	0.10	0.21	0.00	31.27	0.36	0.71	18.97	0.50	1.42	0.16	0.011	0.009	0.22	0.78	11.61	0.035	0.022	0.22	0.02	48.86	0.004	1.99	0.00	0.19	8.90	1.95	45.73	1.82	0.18	163.45	0.03	0.445	0.012	2.41	0.39	7.21	0.09
2038 Oct	Mean	104.83	125.29	0.02	0.01	0.63	0.06	0.10	0.22	0.00	32.02	0.37	0.72	19.58	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.89	0.036	0.023	0.23	0.02	50.43	0.005	2.06	0.00	0.20	9.12	2.01	47.33	1.86	0.18	168.76	0.03	0.456	0.012	2.48	0.40	7.43	0.09
2038 Nov	Mean	103.31	123.47	0.03	0.01	0.69	0.06	0.11	0.25	0.00	31.56	0.41	0.71	21.98	0.53	1.56	0.16	0.012	0.009	0.23	0.78	11.72	0.040	0.026	0.22	0.02	56.57	0.004	2.31	0.00	0.22	8.98	2.25	53.23	1.84	0.18	186.47	0.03	0.449	0.013	2.69	0.42	8.01	0.09
2038 Dec	Mean	104.69	125.12	0.03	0.01	0.84	0.06	0.13	0.31	0.00	31.98	0.52	0.72	27.69	0.58	1.84	0.16	0.013	0.009	0.23	0.80	11.88	0.051	0.032	0.23	0.02	71.21	0.005	2.90	0.00	0.27	9.10	2.83	66.88	1.86	0.18	228.88	0.03	0.455	0.016	3.22	0.47	9.61	0.09
2039 Jan	Mean	103.11	123.24	0.03	0.01	0.94	0.07	0.15	0.35	0.00	31.50	0.58	0.71	31.52	0.61	2.02	0.16	0.014	0.009	0.23	0.78	11.70	0.058	0.037	0.22	0.02	81.03	0.004	3.29	0.00	0.30	8.97	3.22	75.90	1.83	0.18	256.50	0.03	0.448	0.018	3.56	0.49	10.63	0.09
2039 Feb	Mean	100.48	120.09	0.03	0.01	0.96	0.07	0.15	0.36	0.00	30.69	0.60	0.69	32.30	0.61	2.04	0.16	0.014	0.009	0.22	0.76	11.40	0.059	0.038	0.22	0.02	83.05	0.004	3.36	0.00	0.31	8.74	3.30	77.56	1.79	0.17	261.31	0.03	0.437	0.018	3.62	0.49	10.80	0.09
2039 Mar	Mean	97.14	116.11	0.03	0.01	0.92	0.06	0.14	0.34	0.00	29.68	0.58	0.67	31.04	0.59	1.97	0.15	0.014	0.008	0.21	0.74	11.02	0.057	0.036	0.21	0.02	79.80	0.004	3.21	0.00	0.30	8.45	3.17	74.27	1.73	0.17	250.72	0.03	0.422	0.017	3.48	0.48	10.39	0.08
2039 Apr	Mean	305.66	365.33	0.05	0.03	1.25	0.16	0.22	0.41	0.01	93.37	0.75	2.11	35.34	1.30	3.52	0.48	0.034	0.027	0.67	2.32	34.67	0.070	0.041	0.66	0.07	92.96	0.013	3.60	0.00	0.39	26.58	3.51	82.36	5.43	0.53	320.22	0.10	1.329	0.029	5.11	1.00	20.84	0.27
2039 May	Mean	5168.26	6177.19	0.36	0.50	10.09	2.37	2.15	2.51	0.23	1578.79	5.56	35.71	180.54	18.30	41.56	8.09	0.500	0.449	11.34	39.26	586.26	0.450	0.206	11.16	1.18	512.37	0.225	17.87	0.00	2.86	449.41	16.17	389.20	91.88	8.99	2298.46	1.72	22.471	0.331	47.66	13.64	269.52	4.49
2039 Jun	Mean	2484.45	2969.45	0.16	0.23	4.48	1.13	0.99	1.04	0.11	758.94	2.31	17.16	71.95	8.67	18.87	3.89	0.227	0.216	5.45	18.87	281.82	0.183	0.084	5.37	0.57	206.08	0.108	7.36	0.00	1.25	216.04	6.45	157.82	44.17	4.32	1013.11	0.83	10.802	0.147	21.72	6.43	118.85	2.16
2039 Jul	Mean	196.95	235.40	0.03	0.02	0.70	0.10	0.13	0.21	0.01	60.16	0.38	1.36	18.45	0.80	1.95	0.31	0.018	0.017	0.43	1.50	22.34	0.035	0.022	0.43	0.05	48.18	0.009	1.94	0.00	0.21	17.13	1.88	44.02	3.50	0.34	178.61	0.07	0.856	0.015	2.94	0.61	10.31	0.17
2039 Aug	Mean	102.55	122.57	0.02	0.01	0.55	0.06	0.09	0.19	0.00	31.33	0.32	0.71	16.84	0.48	1.32	0.16	0.010	0.009	0.22	0.78	11.63	0.031	0.020	0.22	0.02	43.41	0.004	1.76	0.00	0.17	8.92	1.73	40.40	1.82	0.18	147.31	0.03	0.446	0.011	2.21	0.37	6.65	0.09
2039 Sep	Mean	100.85	120.54	0.02	0.01	0.59	0.06	0.10	0.20	0.00	30.81	0.34	0.70	18.30	0.49	1.38	0.16	0.011	0.009	0.22	0.77	11.44	0.034	0.022	0.22	0.02	47.15	0.004	1.91	0.00	0.19	8.77	1.88	43.98	1.79	0.18	157.91	0.03	0.438	0.011	2.33	0.38	6.99	0.09
2039 Oct	Mean	100.80	120.47	0.02	0.01	0.60	0.06	0.10	0.21	0.00	30.79	0.35	0.70	18.51	0.49	1.39	0.16	0.011	0.009	0.22	0.77	11.43	0.034	0.022	0.22	0.02	47.67	0.004	1.94	0.00	0.19	8.76	1.90	44.68	1.79	0.18	159.81	0.03	0.438	0.011	2.35	0.38	7.04	0.09
2039 Nov	Mean	103.54	123.75	0.02	0.01	0.68	0.06	0.11	0.24	0.00	31.63	0.40	0.72	21.48	0.53	1.54	0.16	0.012	0.009	0.23	0.79	11.75	0.039	0.025	0.22	0.02	55.29	0.005	2.26	0.00	0.21	9.00	2.20	51.96	1.84	0.18	182.68	0.03	0.450	0.013	2.65	0.41	7.89	0.09
2039 Dec	Mean	104.86	125.34	0.03	0.01	0.84	0.06	0.13	0.30	0.00	32.03	0.51	0.72	27.42	0.58	1.83	0.16	0.013	0.009	0.23	0.80	11.90	0.050	0.032	0.23	0.02	70.53	0.005	2.87	0.00	0.27	9.12	2.80	66.24	1.86	0.18	226.95	0.03	0.456	0.016	3.20	0.47	9.54	0.09
2040 Jan	Mean	103.20	123.34	0.03	0.01	0.94	0.07	0.15	0.35	0.00	31.52	0.58	0.71	31.42	0.61	2.01	0.16	0.014	0.009	0.23	0.78	11.71	0.057	0.037	0.22	0.02	80.78	0.004	3.28	0.00	0.30	8.97	3.21	75.74	1.83	0.18	255.94	0.03	0.449	0.017	3.56	0.49	10.61	0.09
2040 Feb	Mean																																											

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
2041 Jul	Mean	120.21	143.68	0.02	0.01	0.47	0.06	0.08	0.14	0.01	36.72	0.25	0.83	13.05	0.51	1.24	0.19	0.010	0.010	0.26	0.91	13.64	0.024	0.016	0.26	0.03	33.81	0.005	1.28	0.00	0.14	10.45	1.35	29.54	2.14	0.21	119.77	0.04	0.523	0.010	1.96	0.39	6.13	0.10
2041 Aug	Mean	103.17	123.31	0.02	0.01	0.54	0.06	0.09	0.17	0.00	31.52	0.31	0.71	16.10	0.48	1.29	0.16	0.010	0.009	0.23	0.78	11.70	0.030	0.019	0.22	0.02	41.54	0.004	1.55	0.00	0.17	8.97	1.66	35.94	1.83	0.18	136.95	0.03	0.449	0.010	2.12	0.37	6.46	0.09
2041 Sep	Mean	140.88	168.39	0.03	0.02	0.70	0.08	0.12	0.22	0.01	43.04	0.41	0.97	20.77	0.64	1.76	0.22	0.015	0.012	0.31	1.07	15.98	0.039	0.024	0.30	0.03	53.97	0.006	1.96	0.00	0.22	12.25	2.11	45.49	2.50	0.25	175.78	0.05	0.613	0.015	2.76	0.50	9.59	0.12
2041 Oct	Mean	134.38	160.61	0.02	0.01	0.67	0.07	0.11	0.21	0.01	41.05	0.39	0.93	19.99	0.61	1.68	0.21	0.014	0.012	0.29	1.02	15.24	0.037	0.023	0.29	0.03	51.85	0.006	1.90	0.00	0.21	11.69	2.03	44.10	2.39	0.23	169.74	0.04	0.584	0.014	2.66	0.48	8.94	0.12
2041 Nov	Mean	136.42	163.05	0.03	0.01	0.75	0.07	0.13	0.24	0.01	41.67	0.44	0.94	22.73	0.64	1.80	0.21	0.014	0.012	0.30	1.04	15.48	0.042	0.026	0.29	0.03	58.79	0.006	2.17	0.00	0.23	11.86	2.32	50.32	2.43	0.24	190.06	0.05	0.593	0.015	2.92	0.50	9.43	0.12
2041 Dec	Mean	105.95	126.63	0.03	0.01	0.80	0.06	0.13	0.27	0.00	32.36	0.49	0.73	26.12	0.57	1.77	0.17	0.013	0.009	0.23	0.80	12.02	0.048	0.030	0.23	0.02	67.24	0.005	2.48	0.00	0.26	9.21	2.67	57.89	1.88	0.18	207.73	0.04	0.461	0.015	3.04	0.46	9.21	0.09
2042 Jan	Mean	104.42	124.81	0.03	0.01	0.90	0.07	0.14	0.31	0.00	31.90	0.56	0.72	29.90	0.60	1.95	0.16	0.014	0.009	0.23	0.79	11.85	0.055	0.034	0.23	0.02	76.94	0.005	2.82	0.00	0.29	9.08	3.06	66.05	1.86	0.18	233.62	0.03	0.454	0.017	3.37	0.48	10.22	0.09
2042 Feb	Mean	101.76	121.63	0.03	0.01	0.92	0.06	0.14	0.32	0.00	31.09	0.57	0.70	30.71	0.60	1.97	0.16	0.014	0.009	0.22	0.77	11.54	0.056	0.035	0.22	0.02	79.02	0.004	2.89	0.00	0.29	8.85	3.14	67.61	1.81	0.18	238.30	0.03	0.442	0.017	3.42	0.49	10.39	0.09
2042 Mar	Mean	98.28	117.47	0.03	0.01	0.88	0.06	0.14	0.30	0.00	30.02	0.55	0.68	29.48	0.58	1.90	0.15	0.014	0.009	0.22	0.75	11.15	0.054	0.034	0.21	0.02	75.86	0.004	2.76	0.00	0.28	8.55	3.01	64.58	1.75	0.17	228.29	0.03	0.427	0.016	3.29	0.47	9.99	0.09
2042 Apr	Mean	316.94	378.81	0.04	0.03	1.14	0.16	0.21	0.34	0.01	96.82	0.67	2.19	30.81	1.30	3.35	0.50	0.033	0.028	0.70	2.41	35.95	0.061	0.035	0.68	0.07	81.37	0.014	2.87	0.00	0.35	27.56	3.06	66.05	5.63	0.55	279.19	0.11	1.378	0.028	4.73	0.99	19.65	0.28
2042 May	Mean	5621.57	6719.00	0.39	0.55	10.73	2.57	2.31	2.52	0.25	1717.27	5.87	38.84	186.87	19.82	44.71	8.80	0.540	0.489	12.33	42.70	637.68	0.472	0.211	12.14	1.29	533.00	0.244	17.00	0.00	3.03	488.83	16.66	371.24	99.94	9.78	2375.48	1.88	24.442	0.355	50.72	14.76	289.80	4.89
2042 Jun	Mean	2340.01	2796.82	0.15	0.22	4.11	1.06	0.92	0.90	0.10	714.82	2.12	16.17	63.98	8.13	17.66	3.66	0.214	0.203	5.13	17.77	265.44	0.167	0.074	5.05	0.54	184.87	0.102	6.00	0.00	1.14	203.48	5.67	128.53	41.60	4.07	904.48	0.78	10.174	0.137	19.99	6.03	112.06	2.03
2042 Jul	Mean	180.37	215.58	0.02	0.02	0.64	0.09	0.12	0.19	0.01	55.10	0.36	1.25	17.12	0.74	1.83	0.28	0.017	0.016	0.40	1.37	20.46	0.033	0.020	0.39	0.04	44.94	0.008	1.59	0.00	0.20	15.68	1.72	36.72	3.21	0.31	156.90	0.06	0.784	0.015	2.67	0.56	10.13	0.16
2042 Aug	Mean	103.20	123.34	0.02	0.01	0.54	0.06	0.09	0.16	0.00	31.52	0.31	0.71	16.14	0.48	1.29	0.16	0.010	0.009	0.23	0.78	11.71	0.030	0.019	0.22	0.02	41.65	0.004	1.49	0.00	0.17	8.97	1.66	34.78	1.83	0.18	134.91	0.03	0.449	0.010	2.12	0.37	6.46	0.09
2042 Sep	Mean	101.54	121.37	0.02	0.01	0.57	0.06	0.10	0.18	0.00	31.02	0.33	0.70	17.48	0.48	1.34	0.16	0.010	0.009	0.22	0.77	11.52	0.032	0.020	0.22	0.02	45.09	0.004	1.61	0.00	0.18	8.83	1.80	37.61	1.81	0.18	143.73	0.03	0.441	0.011	2.22	0.38	6.78	0.09
2042 Oct	Mean	123.22	147.27	0.02	0.01	0.61	0.07	0.10	0.19	0.01	37.64	0.35	0.85	18.20	0.56	1.49	0.19	0.012	0.011	0.27	0.94	13.98	0.034	0.021	0.27	0.03	47.01	0.005	1.69	0.00	0.19	10.71	1.87	39.40	2.19	0.21	153.88	0.04	0.536	0.012	2.43	0.43	7.53	0.11
2042 Nov	Mean	104.76	125.21	0.02	0.01	0.63	0.06	0.10	0.20	0.00	32.00	0.37	0.72	19.64	0.51	1.46	0.16	0.011	0.009	0.23	0.80	11.88	0.036	0.023	0.23	0.02	50.64	0.005	1.82	0.00	0.20	9.11	2.02	42.52	1.86	0.18	159.93	0.03	0.455	0.012	2.44	0.40	7.42	0.09
2042 Dec	Mean	106.37	127.13	0.03	0.01	0.78	0.06	0.13	0.26	0.00	32.49	0.47	0.73	25.40	0.57	1.74	0.17	0.013	0.009	0.23	0.81	12.07	0.047	0.029	0.23	0.02	65.42	0.005	2.34	0.00	0.25	9.25	2.60	54.93	1.89	0.18	200.20	0.04	0.462	0.015	2.97	0.45	9.02	0.09
2043 Jan	Mean	104.88	125.36	0.03	0.01	0.89	0.07	0.14	0.30	0.00	32.04	0.55	0.72	29.38	0.60	1.93	0.16	0.014	0.009	0.23	0.80	11.90	0.054	0.034	0.23	0.02	75.64	0.005	2.70	0.00	0.28	9.12	3.00	63.44	1.86	0.18	227.34	0.03	0.456	0.017	3.31	0.48	10.09	0.09
2043 Feb	Mean	102.14	122.09	0.03	0.01	0.91	0.06	0.14	0.31	0.00	31.20	0.56	0.71	30.33	0.60	1.96	0.16	0.014	0.009	0.22	0.78	11.59	0.055	0.035	0.22	0.02	78.07	0.004	2.78	0.00	0.29	8.88	3.10	65.39	1.82	0.18	233.13	0.03	0.444	0.017	3.38	0.48	10.30	0.09
2043 Mar	Mean	98.59	117.84	0.03	0.01	0.88	0.06	0.14	0.29	0.00	30.12	0.54	0.68	29.25	0.58	1.89	0.15	0.013	0.009	0.22	0.75	11.18	0.054	0.034	0.21	0.02	75.30	0.004	2.67	0.00	0.28	8.57	2.99	62.87	1.75	0.17	224.50	0.03	0.429	0.016	3.26	0.47	9.93	0.09
2043 Apr	Mean	353.11	422.04	0.05	0.04	1.30	0.18	0.23	0.38	0.02	107.87	0.76	2.44	35.20	1.45	3.78	0.55	0.037	0.031	0.77	2.68	40.05	0.070	0.040	0.76	0.08	92.92	0.015	3.20	0.00	0.40	30.70	3.49	73.88	6.28	0.61	314.03	0.12	1.535	0.031	5.33	1.11	22.21	0.31
2043 May	Mean	5277.21	6307.41	0.36	0.51	9.91	2.41	2.15	2.28	0.23	1612.07	5.37	36.46	169.01	18.55	41.58	8.26	0.503	0.459	11.58	40.08	598.62	0.430	0.191	11.40	1.21	483.45	0.229	15.22	0.00	2.79	458.89	15.03	331.61	93.82	9.18	2181.03	1.76	22.944	0.329	47.03	13.80	268.86	4.59
2043 Jun	Mean	1853.84	2215.75	0.12	0.17	3.35	0.84	0.74	0.73	0.08	566.31	1.66	12.81	53.62	6.47	13.82	2.90	0.163	0.161	4.07	14.08	210.29	0.133	0.063	4.00	0.42	152.30	0.081	5.12	0.00	0.93	161.20	4.93	110.56	32.96	3.22	746.16	0.62	8.060	0.106	16.22	4.79	84.33	1.61
2043 Jul	Mean	139.85	167.15	0.02	0.01	0.52	0.07	0.09	0.15	0.01	42.72	0.28	0.97	13.97	0.58	1.42	0.22	0.013	0.012	0.31	1.06	15.86	0.027	0.016	0.30	0.03	36.47	0.006	1.28	0.00	0.16	12.16	1.42	29.67	2.49	0.24	126.34	0.05	0.608	0.011	2.14	0.44	7.56	0.12
2043 Aug	Mean	103.14	123.28	0.02	0.01	0.54	0.06	0.09	0.16	0.00	31.51	0.30	0.71	16.08	0.48	1.28	0.16	0.010	0.009	0.23	0.78	11.70	0.030	0.019	0.22	0.02	41.50	0.004	1.46	0.00	0.17	8.97	1.65	34.13	1.83	0.18	133.50	0.03	0.448	0.010	2.10	0.37	6.44	0.09
2043 Sep	Mean																																											

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
2045 Feb	Mean	102.49	122.50	0.03	0.01	0.90	0.06	0.14	0.29	0.00	31.31	0.56	0.71	29.87	0.60	1.94	0.16	0.014	0.009	0.22	0.78	11.63	0.055	0.034	0.22	0.02	76.90	0.004	2.64	0.00	0.29	8.91	3.05	62.33	1.82	0.18	226.12	0.03	0.446	0.017	3.32	0.48	10.18	0.09
2045 Mar	Mean	99.00	118.33	0.03	0.01	0.86	0.06	0.14	0.28	0.00	30.24	0.53	0.68	28.72	0.57	1.87	0.15	0.013	0.009	0.22	0.75	11.23	0.053	0.033	0.21	0.02	73.94	0.004	2.53	0.00	0.28	8.61	2.94	59.72	1.76	0.17	217.12	0.03	0.430	0.016	3.20	0.46	9.79	0.09
2045 Apr	Mean	357.26	427.00	0.05	0.04	1.34	0.18	0.24	0.39	0.02	109.14	0.79	2.47	36.59	1.48	3.88	0.56	0.038	0.031	0.78	2.71	40.53	0.073	0.042	0.77	0.08	96.58	0.016	3.21	0.00	0.41	31.07	3.63	74.59	6.35	0.62	320.13	0.12	1.553	0.032	5.46	1.13	22.84	0.31
2045 May	Mean	5782.45	6911.29	0.39	0.56	10.73	2.63	2.33	2.42	0.25	1766.41	5.82	39.95	180.46	20.28	45.43	9.05	0.552	0.503	12.68	43.92	655.93	0.464	0.203	12.49	1.32	518.19	0.251	15.71	0.00	3.01	502.82	15.95	342.23	102.80	10.06	2335.16	1.93	25.141	0.360	50.99	15.09	294.81	5.03
2045 Jun	Mean	2600.60	3108.28	0.17	0.24	4.59	1.18	1.02	0.97	0.11	794.43	2.29	17.97	71.27	9.05	19.31	4.07	0.230	0.226	5.70	19.75	295.00	0.181	0.084	5.62	0.60	204.19	0.113	6.53	0.00	1.27	226.14	6.47	140.55	46.23	4.52	1006.19	0.87	11.307	0.148	22.30	6.69	119.22	2.26
2045 Jul	Mean	195.89	234.13	0.02	0.02	0.67	0.10	0.12	0.18	0.01	59.84	0.38	1.35	17.65	0.79	1.96	0.31	0.019	0.017	0.43	1.49	22.22	0.035	0.020	0.42	0.04	46.51	0.009	1.51	0.00	0.20	17.03	1.77	35.21	3.48	0.34	158.68	0.07	0.852	0.016	2.79	0.60	11.01	0.17
2045 Aug	Mean	103.84	124.11	0.02	0.01	0.51	0.06	0.09	0.15	0.00	31.72	0.29	0.72	15.22	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.78	0.028	0.018	0.22	0.02	39.32	0.005	1.32	0.00	0.16	9.03	1.57	31.01	1.85	0.18	125.32	0.03	0.451	0.010	2.02	0.36	6.22	0.09
2045 Sep	Mean	101.94	121.84	0.02	0.01	0.56	0.06	0.09	0.16	0.00	31.14	0.32	0.70	16.97	0.48	1.32	0.16	0.010	0.009	0.22	0.77	11.56	0.031	0.020	0.22	0.02	43.81	0.004	1.46	0.00	0.17	8.86	1.75	34.40	1.81	0.18	136.33	0.03	0.443	0.011	2.16	0.37	6.65	0.09
2045 Oct	Mean	117.57	140.52	0.02	0.01	0.60	0.06	0.10	0.18	0.01	35.91	0.34	0.81	18.04	0.54	1.46	0.18	0.012	0.010	0.26	0.89	13.34	0.033	0.021	0.25	0.03	46.60	0.005	1.56	0.00	0.19	10.22	1.85	36.71	2.09	0.20	147.11	0.04	0.511	0.012	2.36	0.42	7.36	0.10
2045 Nov	Mean	121.27	144.94	0.02	0.01	0.68	0.07	0.11	0.20	0.01	37.05	0.39	0.84	20.67	0.58	1.61	0.19	0.013	0.011	0.27	0.92	13.76	0.038	0.024	0.26	0.03	53.42	0.005	1.78	0.00	0.21	10.55	2.12	41.99	2.16	0.21	165.33	0.04	0.527	0.013	2.61	0.45	8.29	0.11
2045 Dec	Mean	106.97	127.85	0.03	0.01	0.77	0.06	0.12	0.24	0.00	32.68	0.46	0.74	24.84	0.57	1.72	0.17	0.013	0.009	0.23	0.81	12.13	0.046	0.028	0.23	0.02	64.01	0.005	2.13	0.00	0.24	9.30	2.55	50.46	1.90	0.19	190.32	0.04	0.465	0.015	2.89	0.45	8.88	0.09
2046 Jan	Mean	105.55	126.16	0.03	0.01	0.87	0.07	0.14	0.27	0.00	32.24	0.53	0.73	28.58	0.59	1.89	0.17	0.014	0.009	0.23	0.80	11.97	0.052	0.033	0.23	0.02	73.61	0.005	2.44	0.00	0.28	9.18	2.93	57.98	1.88	0.18	214.92	0.04	0.459	0.016	3.21	0.48	9.88	0.09
2046 Feb	Mean	102.83	122.90	0.03	0.01	0.89	0.06	0.14	0.28	0.00	31.41	0.55	0.71	29.42	0.59	1.92	0.16	0.014	0.009	0.23	0.78	11.66	0.054	0.034	0.22	0.02	75.77	0.004	2.51	0.00	0.28	8.94	3.01	59.59	1.83	0.18	219.76	0.03	0.447	0.017	3.27	0.48	10.06	0.09
2046 Mar	Mean	99.32	118.71	0.03	0.01	0.85	0.06	0.13	0.27	0.00	30.34	0.53	0.69	28.28	0.57	1.85	0.16	0.013	0.009	0.22	0.75	11.27	0.052	0.032	0.21	0.02	72.83	0.004	2.40	0.00	0.27	8.64	2.89	57.04	1.77	0.17	210.88	0.03	0.432	0.016	3.14	0.46	9.68	0.09
2046 Apr	Mean	421.02	503.22	0.05	0.04	1.29	0.20	0.24	0.35	0.02	128.61	0.75	2.91	32.39	1.65	4.11	0.66	0.043	0.037	0.92	3.20	47.76	0.067	0.037	0.91	0.10	86.51	0.018	2.75	0.00	0.39	36.61	3.17	63.67	7.49	0.73	300.15	0.14	1.831	0.033	5.45	1.25	24.71	0.37
2046 May	Mean	4776.71	5709.21	0.33	0.46	9.06	2.18	1.96	2.03	0.21	1459.18	4.87	33.00	156.09	16.82	37.57	7.48	0.451	0.415	10.48	36.28	541.85	0.391	0.177	10.32	1.09	444.54	0.208	13.38	0.00	2.55	415.37	14.03	293.39	84.92	8.31	1973.75	1.59	20.768	0.296	42.80	12.51	240.53	4.15
2046 Jun	Mean	2889.92	3454.08	0.18	0.27	5.03	1.31	1.12	1.06	0.13	882.81	2.59	19.97	77.00	10.03	21.74	4.52	0.264	0.251	6.34	21.95	327.82	0.203	0.088	6.24	0.66	223.33	0.126	6.73	0.00	1.39	251.30	6.79	144.37	51.38	5.03	1083.95	0.96	12.565	0.169	24.42	7.43	138.15	2.51
2046 Jul	Mean	159.25	190.34	0.02	0.01	0.55	0.08	0.10	0.14	0.01	48.65	0.29	1.10	14.30	0.64	1.54	0.25	0.014	0.014	0.35	1.21	18.07	0.027	0.017	0.34	0.04	37.41	0.007	1.22	0.00	0.17	13.85	1.46	28.44	2.83	0.28	129.30	0.05	0.692	0.012	2.28	0.49	8.06	0.14
2046 Aug	Mean	106.24	126.98	0.02	0.01	0.52	0.06	0.09	0.15	0.00	32.45	0.29	0.73	15.46	0.48	1.27	0.17	0.010	0.009	0.23	0.81	12.05	0.028	0.018	0.23	0.02	39.96	0.005	1.29	0.00	0.16	9.24	1.59	30.54	1.89	0.18	125.65	0.04	0.462	0.010	2.05	0.37	6.36	0.09
2046 Sep	Mean	110.10	131.60	0.02	0.01	0.57	0.06	0.10	0.16	0.00	33.63	0.32	0.76	16.98	0.51	1.37	0.17	0.011	0.010	0.24	0.84	12.49	0.031	0.020	0.24	0.03	43.87	0.005	1.41	0.00	0.18	9.57	1.75	33.40	1.96	0.19	136.19	0.04	0.479	0.011	2.20	0.39	6.91	0.10
2046 Oct	Mean	123.19	147.24	0.02	0.01	0.61	0.07	0.10	0.17	0.01	37.63	0.35	0.85	18.09	0.56	1.49	0.19	0.012	0.011	0.27	0.94	13.97	0.033	0.021	0.27	0.03	46.80	0.005	1.51	0.00	0.19	10.71	1.86	35.80	2.19	0.21	146.76	0.04	0.536	0.012	2.39	0.43	7.56	0.11
2046 Nov	Mean	105.44	126.02	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.21	0.36	0.73	19.11	0.51	1.44	0.17	0.011	0.009	0.23	0.80	11.96	0.035	0.022	0.23	0.02	49.30	0.005	1.59	0.00	0.19	9.17	1.96	37.83	1.87	0.18	149.72	0.04	0.458	0.012	2.37	0.40	7.28	0.09
2046 Dec	Mean	107.18	128.10	0.03	0.01	0.77	0.06	0.12	0.23	0.00	32.74	0.46	0.74	24.64	0.57	1.71	0.17	0.013	0.009	0.24	0.81	12.16	0.045	0.028	0.23	0.02	63.51	0.005	2.05	0.00	0.24	9.32	2.53	48.74	1.91	0.19	186.56	0.04	0.466	0.014	2.86	0.45	8.83	0.09
2047 Jan	Mean	105.85	126.52	0.03	0.01	0.86	0.07	0.14	0.27	0.00	32.34	0.53	0.73	28.31	0.59	1.88	0.17	0.014	0.009	0.23	0.80	12.01	0.052	0.032	0.23	0.02	72.93	0.005	2.35	0.00	0.28	9.20	2.90	55.98	1.88	0.18	210.44	0.04	0.460	0.016	3.18	0.48	9.81	0.09
2047 Feb	Mean	103.13	123.26	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.50	0.54	0.71	29.14	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.70	0.053	0.033	0.22	0.02	75.07	0.004	2.42	0.00	0.28	8.97	2.98	57.62	1.83	0.18	215.32	0.03	0.448	0.016	3.23	0.48	9.99	0.09
2047 Mar	Mean	99.62	119.06	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.43	0.52	0.69	28.13	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.30	0.052	0.032	0.22	0.02	72.47	0.004	2.33	0.00	0.27	8.66	2.88	55.52	1.77	0.17	207.67	0.03	0.433	0.016	3.12	0.46	9.65	0.09
2047 Apr	Mean	212.9																																										

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(mg/l)	(mg/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	
2048 Sep	Mean	127.89	152.86	0.02	0.01	0.60	0.07	0.10	0.17	0.01	39.07	0.35	0.88	17.73	0.57	1.53	0.20	0.013	0.011	0.28	0.97	14.51	0.033	0.020	0.28	0.03	46.05	0.006	1.44	0.00	0.19	11.12	1.81	34.17	2.27	0.22	143.28	0.04	0.556	0.012	2.37	0.44	8.04	0.11
2048 Oct	Mean	119.62	142.97	0.02	0.01	0.61	0.06	0.10	0.17	0.01	36.54	0.35	0.83	18.41	0.55	1.49	0.19	0.012	0.010	0.26	0.91	13.57	0.034	0.021	0.26	0.03	47.62	0.005	1.51	0.00	0.19	10.40	1.89	35.87	2.13	0.21	147.01	0.04	0.520	0.012	2.39	0.43	7.59	0.10
2048 Nov	Mean	105.88	126.55	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.34	0.36	0.73	19.05	0.51	1.44	0.17	0.011	0.009	0.23	0.80	12.01	0.035	0.022	0.23	0.02	49.15	0.005	1.57	0.00	0.19	9.21	1.96	37.36	1.88	0.18	148.76	0.04	0.460	0.012	2.36	0.40	7.27	0.09
2048 Dec	Mean	107.42	128.39	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.81	0.46	0.74	24.52	0.57	1.71	0.17	0.013	0.009	0.24	0.82	12.19	0.045	0.028	0.23	0.02	63.22	0.005	2.02	0.00	0.24	9.34	2.51	48.13	1.91	0.19	185.13	0.04	0.467	0.014	2.85	0.45	8.80	0.09
2049 Jan	Mean	105.96	126.64	0.03	0.01	0.86	0.07	0.14	0.26	0.00	32.37	0.53	0.73	28.19	0.59	1.88	0.17	0.014	0.009	0.23	0.80	12.02	0.052	0.032	0.23	0.02	72.64	0.005	2.32	0.00	0.27	9.21	2.89	55.40	1.88	0.18	209.04	0.04	0.461	0.016	3.16	0.47	9.78	0.09
2049 Feb	Mean	103.16	123.30	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.51	0.54	0.71	29.05	0.59	1.90	0.16	0.014	0.009	0.23	0.78	11.70	0.053	0.033	0.22	0.02	74.84	0.004	2.39	0.00	0.28	8.97	2.97	57.14	1.83	0.18	214.17	0.03	0.449	0.016	3.22	0.48	9.97	0.09
2049 Mar	Mean	99.58	119.02	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.42	0.52	0.69	28.02	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.30	0.051	0.032	0.22	0.02	72.18	0.004	2.31	0.00	0.27	8.66	2.87	55.06	1.77	0.17	206.48	0.03	0.433	0.016	3.11	0.46	9.61	0.09
2049 Apr	Mean	394.44	471.44	0.05	0.04	1.34	0.20	0.25	0.36	0.02	120.49	0.77	2.73	35.22	1.59	4.01	0.62	0.040	0.034	0.87	3.00	44.74	0.071	0.040	0.85	0.09	93.21	0.017	2.93	0.00	0.41	34.30	3.50	68.38	7.01	0.69	312.79	0.13	1.715	0.033	5.55	1.21	23.26	0.34
2049 May	Mean	5316.75	6354.68	0.35	0.52	9.81	2.42	2.13	2.16	0.23	1624.15	5.36	36.73	163.71	18.63	41.85	8.32	0.511	0.462	11.66	40.38	603.11	0.425	0.182	11.48	1.22	471.87	0.231	13.60	0.00	2.75	462.33	14.36	296.84	94.52	9.25	2104.39	1.77	23.116	0.332	46.51	13.86	273.56	4.62
2049 Jun	Mean	2509.85	2999.82	0.16	0.23	4.35	1.14	0.98	0.90	0.11	766.71	2.19	17.34	66.08	8.70	18.64	3.93	0.224	0.218	5.51	19.06	284.71	0.171	0.077	5.42	0.57	190.85	0.109	5.80	0.00	1.20	218.25	5.91	124.43	44.62	4.36	940.35	0.84	10.912	0.144	21.20	6.44	116.39	2.18
2049 Jul	Mean	106.53	127.33	0.02	0.01	0.42	0.05	0.08	0.11	0.00	32.54	0.22	0.74	11.53	0.45	1.09	0.17	0.009	0.009	0.23	0.81	12.08	0.021	0.013	0.23	0.02	29.86	0.005	0.97	0.00	0.13	9.26	1.19	22.78	1.89	0.19	99.73	0.04	0.463	0.008	1.70	0.34	5.34	0.09
2049 Aug	Mean	103.84	124.11	0.02	0.01	0.51	0.06	0.09	0.14	0.00	31.72	0.29	0.72	15.13	0.47	1.24	0.16	0.010	0.009	0.23	0.79	11.78	0.028	0.017	0.22	0.02	39.09	0.005	1.25	0.00	0.16	9.03	1.56	29.52	1.85	0.18	122.24	0.03	0.451	0.010	2.00	0.36	6.19	0.09
2049 Sep	Mean	102.27	122.23	0.02	0.01	0.54	0.06	0.09	0.15	0.00	31.24	0.31	0.71	16.42	0.48	1.30	0.16	0.010	0.009	0.22	0.78	11.60	0.030	0.019	0.22	0.02	42.41	0.004	1.35	0.00	0.17	8.89	1.69	31.98	1.82	0.18	130.27	0.03	0.445	0.011	2.10	0.37	6.51	0.09
2049 Oct	Mean	157.86	188.68	0.03	0.02	0.74	0.08	0.13	0.21	0.01	48.22	0.43	1.09	21.76	0.70	1.88	0.25	0.016	0.014	0.35	1.20	17.91	0.041	0.025	0.34	0.04	56.55	0.007	1.79	0.00	0.23	13.73	2.22	42.40	2.81	0.27	176.81	0.05	0.686	0.015	2.92	0.54	9.99	0.14
2049 Nov	Mean	105.63	126.25	0.02	0.01	0.61	0.06	0.10	0.18	0.00	32.27	0.36	0.73	18.86	0.51	1.43	0.17	0.011	0.009	0.23	0.80	11.98	0.035	0.022	0.23	0.02	48.65	0.005	1.56	0.00	0.19	9.19	1.94	37.12	1.88	0.18	147.72	0.04	0.459	0.012	2.34	0.40	7.21	0.09
2049 Dec	Mean	107.19	128.11	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.74	0.45	0.74	24.30	0.56	1.69	0.17	0.013	0.009	0.24	0.81	12.16	0.045	0.028	0.23	0.02	62.65	0.005	2.01	0.00	0.24	9.32	2.49	47.85	1.91	0.19	183.93	0.04	0.466	0.014	2.83	0.45	8.73	0.09
2050 Jan	Mean	105.86	126.52	0.03	0.01	0.86	0.07	0.14	0.26	0.00	32.34	0.52	0.73	28.14	0.59	1.87	0.17	0.014	0.009	0.23	0.80	12.01	0.052	0.032	0.23	0.02	72.50	0.005	2.32	0.00	0.27	9.20	2.88	55.45	1.88	0.18	208.96	0.04	0.460	0.016	3.16	0.47	9.76	0.09
2050 Feb	Mean	103.18	123.32	0.03	0.01	0.88	0.06	0.14	0.27	0.00	31.52	0.54	0.71	29.05	0.59	1.90	0.16	0.014	0.009	0.23	0.78	11.70	0.053	0.033	0.22	0.02	74.84	0.004	2.40	0.00	0.28	8.97	2.97	57.27	1.83	0.18	214.41	0.03	0.449	0.016	3.22	0.48	9.97	0.09
2050 Mar	Mean	99.58	119.02	0.03	0.01	0.85	0.06	0.13	0.26	0.00	30.42	0.52	0.69	27.96	0.57	1.83	0.16	0.013	0.009	0.22	0.76	11.30	0.051	0.032	0.22	0.02	72.03	0.004	2.31	0.00	0.27	8.66	2.86	55.04	1.77	0.17	206.28	0.03	0.433	0.016	3.10	0.46	9.60	0.09
2050 Apr	Mean	333.41	398.50	0.04	0.03	1.22	0.17	0.22	0.34	0.01	101.85	0.71	2.30	33.10	1.37	3.55	0.52	0.034	0.029	0.73	2.53	37.82	0.066	0.038	0.72	0.08	87.35	0.014	2.74	0.00	0.37	28.99	3.30	64.09	5.93	0.58	285.74	0.11	1.450	0.029	4.98	1.05	20.64	0.29
2050 May	Mean	6279.28	7505.11	0.42	0.61	11.66	2.86	2.53	2.59	0.28	1918.18	6.41	43.38	196.51	22.03	49.70	9.83	0.608	0.546	13.77	47.70	712.29	0.510	0.218	13.56	1.44	566.07	0.273	16.29	0.00	3.28	546.03	17.22	355.93	111.64	10.92	2502.71	2.09	27.301	0.396	55.17	16.40	325.98	5.46
2050 Jun	Mean	2729.55	3262.41	0.17	0.25	4.73	1.23	1.06	0.98	0.12	833.82	2.38	18.86	71.55	9.46	20.26	4.27	0.244	0.237	5.99	20.73	309.63	0.186	0.083	5.90	0.62	206.79	0.119	6.29	0.00	1.30	237.35	6.39	134.87	48.53	4.75	1020.80	0.91	11.868	0.156	23.03	7.00	126.62	2.37
2050 Jul	Mean	207.73	248.28	0.02	0.02	0.62	0.10	0.12	0.16	0.01	63.46	0.33	1.44	15.14	0.81	1.91	0.33	0.019	0.018	0.46	1.58	23.56	0.030	0.017	0.45	0.05	40.11	0.009	1.27	0.00	0.18	18.06	1.52	29.37	3.69	0.36	142.98	0.07	0.903	0.015	2.63	0.61	10.68	0.18
2050 Aug	Mean	103.75	124.00	0.02	0.01	0.52	0.06	0.09	0.14	0.00	31.69	0.29	0.72	15.30	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.77	0.028	0.018	0.22	0.02	39.53	0.005	1.26	0.00	0.16	9.02	1.58	29.87	1.84	0.18	123.39	0.03	0.451	0.010	2.02	0.37	6.25	0.09
2050 Sep	Mean	147.86	176.72	0.02	0.02	0.65	0.08	0.11	0.18	0.01	45.17	0.37	1.02	18.60	0.64	1.70	0.23	0.015	0.013	0.32	1.12	16.77	0.035	0.021	0.32	0.03	48.52	0.006	1.52	0.00	0.20	12.86	1.89	35.96	2.63	0.26	153.06	0.05	0.643	0.014	2.57	0.50	9.26	0.13
2050 Oct	Mean	126.21	150.84	0.02	0.01	0.64	0.07	0.11	0.18	0.01	38.55	0.36	0.87	18.96	0.58	1.56	0.20	0.013	0.011	0.28	0.96	14.32	0.035	0.022	0.27	0.03	49.09	0.005	1.56	0.00	0.20	10.97	1.94	36.98	2.24	0.22	152.02	0.04	0.549	0.013	2.48	0.45	8.01	0.11
2050 Nov	Mean	105.37																																										

Table A-12
Monthly WQ Report for Scenario A.3.d - Interim/Ulimate WRD Sediment Pond, RCP 8.5, for 95th Percentile Water Quality, WRD Layering Fails

Date	Statistical value	Alkalinity	Hardness	Ag	Al	As	B	Ba	Be	Bi	Ca	Cd	Cl	Co	Cr	Cu	F	Fe	Hg	K	Li	Mg	Mn	Mo	Na	NH4	Ni	NO2	NO3	P	Pb	S	Sb	Se	Si	Sn	SO4	Sr	Ti	Tl	U	V	Zn	Zr
		Alkalinity	Hardness	Silver	Aluminum	Arsenic	Boron	Barium	Beryllium	Bismuth	Calcium	Cadmium	Chlorine	Cobalt	Chromium	Copper	Fluorine	Iron	Mercury	Potassium	Lithium	Magnesium	Manganese	Molybdenum	Sodium	Ammonium	Nickel	Nitrite	Nitrate	Phosphorus	Lead	Sulfur	Antimony	Selenium	Silicon	Tin	Sulfate	Strontium	Titanium	Thallium	Uranium	Vanadium	Zinc	Zirconium
Units		(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(µg/l)	(mg/l)	(mg/l)	(µg/l)	(µg/l)	(mg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
2052 Apr	Mean	273.28	326.63	0.04	0.03	1.08	0.14	0.19	0.31	0.01	83.48	0.64	1.89	30.10	1.15	3.08	0.43	0.030	0.024	0.60	2.08	31.00	0.060	0.034	0.59	0.06	79.36	0.012	2.51	0.00	0.33	23.76	2.99	58.83	4.86	0.48	254.17	0.09	1.188	0.026	4.34	0.89	18.20	0.24
2052 May	Mean	5649.29	6752.13	0.38	0.55	10.50	2.57	2.28	2.34	0.25	1725.74	5.76	39.03	177.07	19.82	44.66	8.84	0.545	0.491	12.39	42.91	640.83	0.458	0.197	12.20	1.29	509.62	0.246	14.84	0.00	2.95	491.24	15.55	324.21	100.44	9.82	2260.90	1.88	24.562	0.355	49.71	14.75	292.28	4.91
2052 Jun	Mean	2572.66	3074.89	0.16	0.24	4.47	1.16	1.00	0.93	0.11	785.89	2.28	17.77	68.07	8.92	19.24	4.03	0.233	0.224	5.64	19.54	291.83	0.178	0.078	5.56	0.59	197.14	0.112	5.96	0.00	1.23	223.71	6.04	127.98	45.74	4.47	963.87	0.86	11.186	0.149	21.72	6.60	121.41	2.24
2052 Jul	Mean	247.61	295.95	0.03	0.02	0.75	0.12	0.14	0.20	0.01	75.64	0.42	1.71	18.72	0.97	2.35	0.39	0.024	0.022	0.54	1.88	28.09	0.038	0.021	0.53	0.06	49.78	0.011	1.57	0.00	0.23	21.53	1.86	36.30	4.40	0.43	174.20	0.08	1.077	0.019	3.19	0.73	13.60	0.22
2052 Aug	Mean	103.69	123.93	0.02	0.01	0.52	0.06	0.09	0.15	0.00	31.67	0.29	0.72	15.37	0.47	1.25	0.16	0.010	0.009	0.23	0.79	11.76	0.028	0.018	0.22	0.02	39.70	0.005	1.28	0.00	0.16	9.02	1.58	30.32	1.84	0.18	124.41	0.03	0.451	0.010	2.02	0.37	6.27	0.09
2052 Sep	Mean	108.89	130.14	0.02	0.01	0.57	0.06	0.10	0.16	0.00	33.26	0.33	0.75	17.18	0.51	1.37	0.17	0.011	0.009	0.24	0.83	12.35	0.032	0.020	0.24	0.02	44.39	0.005	1.43	0.00	0.18	9.47	1.77	33.83	1.94	0.19	137.29	0.04	0.473	0.011	2.21	0.39	6.95	0.09
2052 Oct	Mean	102.39	122.38	0.02	0.01	0.55	0.06	0.09	0.16	0.00	31.28	0.31	0.71	16.52	0.48	1.30	0.16	0.010	0.009	0.22	0.78	11.61	0.030	0.019	0.22	0.02	42.65	0.004	1.38	0.00	0.17	8.90	1.70	32.75	1.82	0.18	132.03	0.03	0.445	0.011	2.12	0.37	6.53	0.09
2052 Nov	Mean	105.35	125.92	0.02	0.01	0.62	0.06	0.10	0.18	0.00	32.18	0.36	0.73	19.28	0.51	1.45	0.16	0.011	0.009	0.23	0.80	11.95	0.035	0.022	0.23	0.02	49.73	0.005	1.62	0.00	0.20	9.16	1.98	38.37	1.87	0.18	151.20	0.04	0.458	0.012	2.38	0.40	7.32	0.09
2052 Dec	Mean	107.05	127.95	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.70	0.46	0.74	24.58	0.56	1.71	0.17	0.013	0.009	0.23	0.81	12.14	0.045	0.028	0.23	0.02	63.35	0.005	2.06	0.00	0.24	9.31	2.52	49.00	1.90	0.19	186.85	0.04	0.465	0.014	2.86	0.45	8.81	0.09
2053 Jan	Mean	105.68	126.31	0.03	0.01	0.86	0.07	0.14	0.27	0.00	32.28	0.53	0.73	28.32	0.59	1.88	0.17	0.014	0.009	0.23	0.80	11.99	0.052	0.032	0.23	0.02	72.95	0.005	2.37	0.00	0.28	9.19	2.90	56.52	1.88	0.18	211.43	0.04	0.459	0.016	3.18	0.48	9.81	0.09
2053 Feb	Mean	102.93	123.03	0.03	0.01	0.88	0.06	0.14	0.28	0.00	31.44	0.54	0.71	29.23	0.59	1.91	0.16	0.014	0.009	0.23	0.78	11.68	0.054	0.033	0.22	0.02	75.28	0.004	2.45	0.00	0.28	8.95	2.99	58.41	1.83	0.18	217.00	0.03	0.448	0.016	3.24	0.48	10.01	0.09
2053 Mar	Mean	99.41	118.82	0.03	0.01	0.85	0.06	0.13	0.27	0.00	30.37	0.52	0.69	28.07	0.57	1.84	0.16	0.013	0.009	0.22	0.76	11.28	0.051	0.032	0.21	0.02	72.31	0.004	2.36	0.00	0.27	8.64	2.87	56.07	1.77	0.17	208.49	0.03	0.432	0.016	3.12	0.46	9.63	0.09
2053 Apr	Mean	511.99	611.94	0.06	0.06	1.75	0.25	0.32	0.49	0.02	156.40	1.07	3.54	46.50	2.06	5.50	0.80	0.058	0.045	1.12	3.89	58.08	0.097	0.052	1.11	0.12	124.35	0.022	3.83	0.00	0.54	44.52	4.50	89.20	9.10	0.89	405.20	0.17	2.226	0.046	7.18	1.58	34.70	0.45
2053 May	Mean	5468.73	6536.32	0.37	0.53	10.17	2.49	2.21	2.26	0.24	1670.58	5.51	37.78	171.25	19.19	42.95	8.56	0.521	0.476	12.00	41.54	620.34	0.439	0.192	11.81	1.25	491.42	0.238	14.55	0.00	2.86	475.54	15.16	317.71	97.22	9.51	2199.54	1.82	23.777	0.340	48.22	14.27	278.33	4.76
2053 Jun	Mean	2597.61	3104.70	0.16	0.24	4.42	1.17	1.00	0.92	0.11	793.51	2.25	17.95	65.34	8.98	19.30	4.07	0.235	0.226	5.70	19.73	294.66	0.174	0.075	5.61	0.59	190.53	0.113	5.78	0.00	1.22	225.88	5.73	123.19	46.18	4.52	951.55	0.87	11.294	0.149	21.63	6.64	122.28	2.26
2053 Jul	Mean	106.25	126.99	0.02	0.01	0.43	0.05	0.08	0.12	0.00	32.46	0.23	0.73	12.06	0.45	1.11	0.17	0.009	0.009	0.23	0.81	12.05	0.022	0.014	0.23	0.02	31.22	0.005	1.03	0.00	0.13	9.24	1.25	24.22	1.89	0.18	103.94	0.04	0.462	0.009	1.75	0.34	5.45	0.09
2053 Aug	Mean	113.30	135.42	0.02	0.01	0.56	0.06	0.10	0.16	0.00	34.61	0.31	0.78	16.42	0.51	1.36	0.18	0.011	0.010	0.25	0.86	12.85	0.030	0.019	0.24	0.03	42.44	0.005	1.38	0.00	0.17	9.85	1.69	32.59	2.01	0.20	133.78	0.04	0.493	0.011	2.18	0.40	6.81	0.10
2053 Sep	Mean	144.54	172.76	0.03	0.02	0.69	0.08	0.12	0.20	0.01	44.16	0.41	1.00	20.46	0.65	1.77	0.23	0.015	0.013	0.32	1.10	16.40	0.039	0.023	0.31	0.03	53.23	0.006	1.69	0.00	0.22	12.57	2.08	39.91	2.57	0.25	165.17	0.05	0.628	0.015	2.71	0.50	9.62	0.13
2053 Oct	Mean	128.66	153.78	0.02	0.01	0.62	0.07	0.11	0.18	0.01	39.30	0.36	0.89	18.47	0.58	1.57	0.20	0.013	0.011	0.28	0.98	14.59	0.035	0.021	0.28	0.03	47.95	0.006	1.55	0.00	0.19	11.19	1.88	36.57	2.29	0.22	150.05	0.04	0.559	0.013	2.45	0.45	8.30	0.11
2053 Nov	Mean	105.48	126.07	0.02	0.01	0.61	0.06	0.10	0.18	0.00	32.22	0.36	0.73	18.92	0.51	1.43	0.17	0.011	0.009	0.23	0.80	11.97	0.035	0.022	0.23	0.02	48.81	0.005	1.60	0.00	0.19	9.17	1.95	37.87	1.88	0.18	149.27	0.04	0.459	0.012	2.35	0.40	7.23	0.09
2053 Dec	Mean	107.07	127.97	0.03	0.01	0.76	0.06	0.12	0.23	0.00	32.71	0.45	0.74	24.31	0.56	1.69	0.17	0.013	0.009	0.23	0.81	12.15	0.045	0.028	0.23	0.02	62.65	0.005	2.05	0.00	0.24	9.31	2.49	48.68	1.90	0.19	185.47	0.04	0.466	0.014	2.84	0.45	8.73	0.09

Appendix B2: WRD Leachate Flowrate

Table B-1
Monthly Flow Report for WRD Leachate

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2020 Jan	Mean	6.22	6.23	6.25
2020 Feb	Mean	18.86	18.92	19.00
2020 Mar	Mean	31.16	31.51	31.36
2020 Apr	Mean	43.87	44.33	44.30
2020 May	Mean	57.63	58.15	58.27
2020 Jun	Mean	70.91	70.64	70.25
2020 Jul	Mean	83.88	83.61	83.59
2020 Aug	Mean	95.63	95.19	95.27
2020 Sep	Mean	108.00	107.44	107.63
2020 Oct	Mean	121.11	121.77	121.75
2020 Nov	Mean	138.17	140.20	138.32
2020 Dec	Mean	156.28	157.81	156.54
2021 Jan	Mean	288.33	289.51	290.67
2021 Feb	Mean	286.22	287.44	289.11
2021 Mar	Mean	280.53	284.43	283.07
2021 Apr	Mean	280.10	284.12	283.56
2021 May	Mean	286.58	290.35	290.63
2021 Jun	Mean	290.72	292.02	289.05
2021 Jul	Mean	291.49	295.27	293.35
2021 Aug	Mean	291.43	297.17	294.84
2021 Sep	Mean	295.20	303.23	300.48
2021 Oct	Mean	303.29	316.89	312.87
2021 Nov	Mean	324.47	343.98	334.37
2021 Dec	Mean	340.85	360.42	351.77
2022 Jan	Mean	488.04	507.30	503.10
2022 Feb	Mean	492.36	511.91	508.84
2022 Mar	Mean	494.35	518.21	510.92
2022 Apr	Mean	503.08	526.43	521.43
2022 May	Mean	517.35	538.73	535.65
2022 Jun	Mean	533.29	546.83	542.00
2022 Jul	Mean	538.91	551.15	549.78
2022 Aug	Mean	538.26	547.79	547.76
2022 Sep	Mean	537.41	545.91	546.50
2022 Oct	Mean	544.92	558.67	557.92
2022 Nov	Mean	567.17	587.11	577.98
2022 Dec	Mean	581.69	599.59	591.34
2023 Jan	Mean	646.75	660.22	657.24
2023 Feb	Mean	644.32	655.30	653.63
2023 Mar	Mean	641.14	654.77	648.47
2023 Apr	Mean	647.84	662.49	656.62
2023 May	Mean	657.58	674.08	667.41
2023 Jun	Mean	672.51	687.33	676.35
2023 Jul	Mean	681.09	700.30	690.49
2023 Aug	Mean	685.41	704.56	696.18
2023 Sep	Mean	688.50	705.89	700.12
2023 Oct	Mean	692.69	712.17	708.14
2023 Nov	Mean	713.84	736.77	727.08
2023 Dec	Mean	717.22	736.40	729.48
2024 Jan	Mean	796.81	811.94	811.10
2024 Feb	Mean	789.97	803.17	803.78
2024 Mar	Mean	779.00	795.36	790.08
2024 Apr	Mean	781.31	797.06	791.78
2024 May	Mean	792.27	809.06	802.82
2024 Jun	Mean	806.34	820.65	807.60
2024 Jul	Mean	810.68	831.51	818.87
2024 Aug	Mean	812.68	835.80	823.58
2024 Sep	Mean	816.17	839.03	829.52
2024 Oct	Mean	822.27	848.33	841.44
2024 Nov	Mean	843.57	872.05	860.13
2024 Dec	Mean	848.50	871.72	864.03
2025 Jan	Mean	925.01	944.00	943.35
2025 Feb	Mean	916.83	935.66	936.25
2025 Mar	Mean	904.92	930.30	923.44

**Table B-1
Monthly Flow Report for WRD Leachate**

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2025 Apr	Mean	909.14	936.97	930.19
2025 May	Mean	924.32	952.66	942.92
2025 Jun	Mean	935.24	961.96	944.90
2025 Jul	Mean	962.46	1000.44	982.22
2025 Aug	Mean	971.95	1015.99	996.98
2025 Sep	Mean	990.91	1036.51	1020.71
2025 Oct	Mean	1009.58	1058.14	1046.50
2025 Nov	Mean	1041.68	1091.96	1075.25
2025 Dec	Mean	1052.76	1094.79	1083.58
2026 Jan	Mean	1318.13	1353.45	1349.68
2026 Feb	Mean	1302.72	1335.09	1332.23
2026 Mar	Mean	1295.49	1332.52	1322.31
2026 Apr	Mean	1302.78	1342.90	1331.36
2026 May	Mean	1321.90	1366.65	1350.92
2026 Jun	Mean	1338.44	1381.29	1360.46
2026 Jul	Mean	1368.23	1422.16	1401.14
2026 Aug	Mean	1384.93	1436.91	1419.43
2026 Sep	Mean	1397.11	1442.41	1431.23
2026 Oct	Mean	1406.94	1450.51	1444.30
2026 Nov	Mean	1424.70	1467.66	1455.93
2026 Dec	Mean	1429.15	1463.96	1455.15
2027 Jan	Mean	1497.50	1523.56	1520.85
2027 Feb	Mean	1485.80	1507.41	1505.28
2027 Mar	Mean	1477.11	1503.21	1493.70
2027 Apr	Mean	1486.20	1518.90	1506.48
2027 May	Mean	1499.41	1538.17	1520.69
2027 Jun	Mean	1510.25	1551.93	1529.65
2027 Jul	Mean	1538.23	1586.77	1567.03
2027 Aug	Mean	1545.18	1588.58	1574.46
2027 Sep	Mean	1547.86	1582.57	1576.29
2027 Oct	Mean	1542.44	1574.22	1573.29
2027 Nov	Mean	1550.94	1583.76	1577.32
2027 Dec	Mean	1546.08	1573.56	1568.62
2028 Jan	Mean	1531.64	1553.55	1552.05
2028 Feb	Mean	1524.96	1545.69	1542.79
2028 Mar	Mean	1523.72	1551.62	1540.93
2028 Apr	Mean	1539.57	1579.27	1563.57
2028 May	Mean	1560.13	1613.19	1589.17
2028 Jun	Mean	1580.83	1637.62	1611.47
2028 Jul	Mean	1611.64	1671.97	1648.68
2028 Aug	Mean	1617.48	1666.07	1651.00
2028 Sep	Mean	1608.67	1644.30	1638.49
2028 Oct	Mean	1587.91	1619.63	1619.00
2028 Nov	Mean	1580.98	1615.48	1609.54
2028 Dec	Mean	1561.91	1594.94	1588.49
2029 Jan	Mean	1518.15	1550.82	1544.84
2029 Feb	Mean	1513.65	1549.22	1540.70
2029 Mar	Mean	1516.64	1562.35	1546.57
2029 Apr	Mean	1534.96	1593.83	1572.96
2029 May	Mean	1557.37	1627.56	1600.65
2029 Jun	Mean	1579.12	1651.08	1622.26
2029 Jul	Mean	1601.51	1669.64	1645.66
2029 Aug	Mean	1597.88	1650.56	1634.93
2029 Sep	Mean	1578.01	1618.34	1610.58
2029 Oct	Mean	1547.95	1587.61	1583.17
2029 Nov	Mean	1535.38	1582.31	1572.61
2029 Dec	Mean	1525.78	1576.28	1564.64
2030 Jan	Mean	1542.11	1594.37	1584.12
2030 Feb	Mean	1545.66	1599.99	1588.83
2030 Mar	Mean	1550.00	1613.65	1595.77
2030 Apr	Mean	1571.02	1644.24	1624.15
2030 May	Mean	1591.50	1668.30	1644.26
2030 Jun	Mean	1608.31	1676.64	1652.52

Table B-1
Monthly Flow Report for WRD Leachate

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2030 Jul	Mean	1628.82	1690.07	1671.94
2030 Aug	Mean	1618.07	1662.16	1651.27
2030 Sep	Mean	1598.25	1630.71	1625.90
2030 Oct	Mean	1572.96	1605.08	1602.36
2030 Nov	Mean	1568.45	1605.63	1595.69
2030 Dec	Mean	1561.62	1598.31	1588.04
2031 Jan	Mean	1630.93	1666.84	1660.89
2031 Feb	Mean	1624.57	1662.07	1656.90
2031 Mar	Mean	1614.33	1661.66	1650.10
2031 Apr	Mean	1625.07	1681.49	1669.81
2031 May	Mean	1643.97	1704.63	1688.66
2031 Jun	Mean	1659.61	1713.88	1696.82
2031 Jul	Mean	1690.25	1751.84	1736.57
2031 Aug	Mean	1695.81	1751.67	1739.91
2031 Sep	Mean	1703.33	1754.52	1747.38
2031 Oct	Mean	1702.94	1755.46	1750.84
2031 Nov	Mean	1728.60	1784.13	1772.21
2031 Dec	Mean	1732.35	1781.03	1770.79
2032 Jan	Mean	1749.97	1790.96	1786.66
2032 Feb	Mean	1741.83	1779.76	1777.14
2032 Mar	Mean	1725.52	1768.29	1759.98
2032 Apr	Mean	1728.41	1774.91	1766.99
2032 May	Mean	1739.88	1789.42	1776.33
2032 Jun	Mean	1749.47	1791.32	1775.70
2032 Jul	Mean	1766.53	1816.15	1801.35
2032 Aug	Mean	1765.65	1809.42	1796.12
2032 Sep	Mean	1755.49	1792.58	1783.21
2032 Oct	Mean	1744.48	1777.81	1772.36
2032 Nov	Mean	1748.02	1779.82	1769.95
2032 Dec	Mean	1731.96	1756.36	1749.88
2033 Jan	Mean	1716.65	1736.48	1736.56
2033 Feb	Mean	1684.84	1705.48	1706.91
2033 Mar	Mean	1660.75	1688.67	1685.10
2033 Apr	Mean	1653.04	1683.28	1680.57
2033 May	Mean	1659.71	1687.17	1682.98
2033 Jun	Mean	1657.36	1678.12	1669.19
2033 Jul	Mean	1672.07	1700.36	1693.00
2033 Aug	Mean	1670.86	1700.13	1692.10
2033 Sep	Mean	1671.90	1704.05	1696.86
2033 Oct	Mean	1676.27	1711.85	1706.65
2033 Nov	Mean	1694.58	1730.47	1720.10
2033 Dec	Mean	1696.81	1724.42	1717.70
2034 Jan	Mean	1666.65	1687.14	1687.58
2034 Feb	Mean	1639.47	1659.06	1661.34
2034 Mar	Mean	1615.30	1641.45	1639.22
2034 Apr	Mean	1607.99	1636.83	1634.86
2034 May	Mean	1610.73	1637.04	1633.77
2034 Jun	Mean	1615.02	1631.00	1624.62
2034 Jul	Mean	1626.81	1651.62	1646.07
2034 Aug	Mean	1625.14	1650.63	1644.17
2034 Sep	Mean	1623.42	1651.96	1645.73
2034 Oct	Mean	1630.40	1663.14	1657.85
2034 Nov	Mean	1646.66	1679.53	1669.66
2034 Dec	Mean	1646.56	1672.07	1665.52
2035 Jan	Mean	1724.91	1744.60	1743.70
2035 Feb	Mean	1694.79	1714.93	1715.31
2035 Mar	Mean	1675.26	1700.58	1698.44
2035 Apr	Mean	1670.12	1699.11	1696.93
2035 May	Mean	1671.19	1700.94	1696.49
2035 Jun	Mean	1674.59	1702.24	1696.00
2035 Jul	Mean	1687.43	1722.60	1716.47
2035 Aug	Mean	1692.46	1731.60	1724.45
2035 Sep	Mean	1703.10	1746.84	1739.79

Table B-1
Monthly Flow Report for WRD Leachate

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2035 Oct	Mean	1716.47	1763.69	1757.70
2035 Nov	Mean	1734.80	1782.59	1774.59
2035 Dec	Mean	1745.91	1789.64	1783.55
2036 Jan	Mean	1714.29	1753.79	1750.01
2036 Feb	Mean	1702.77	1740.73	1737.32
2036 Mar	Mean	1701.47	1738.96	1734.90
2036 Apr	Mean	1702.76	1739.56	1734.79
2036 May	Mean	1705.13	1741.71	1736.01
2036 Jun	Mean	1709.38	1747.62	1740.84
2036 Jul	Mean	1716.49	1757.29	1749.28
2036 Aug	Mean	1721.77	1763.46	1754.73
2036 Sep	Mean	1723.83	1762.87	1754.52
2036 Oct	Mean	1720.12	1753.00	1746.09
2036 Nov	Mean	1710.19	1735.97	1730.64
2036 Dec	Mean	1693.16	1713.36	1709.59
2037 Jan	Mean	1671.77	1689.91	1687.24
2037 Feb	Mean	1652.17	1671.64	1669.13
2037 Mar	Mean	1636.93	1659.62	1656.49
2037 Apr	Mean	1627.34	1653.11	1649.34
2037 May	Mean	1621.60	1649.22	1644.81
2037 Jun	Mean	1620.08	1649.44	1644.60
2037 Jul	Mean	1622.97	1653.77	1648.47
2037 Aug	Mean	1625.91	1657.33	1651.67
2037 Sep	Mean	1628.42	1659.42	1653.72
2037 Oct	Mean	1630.13	1659.60	1654.33
2037 Nov	Mean	1630.65	1657.88	1652.88
2037 Dec	Mean	1627.77	1651.99	1647.77
2038 Jan	Mean	1621.33	1643.14	1639.84
2038 Feb	Mean	1613.23	1634.02	1631.19
2038 Mar	Mean	1605.04	1626.24	1623.32
2038 Apr	Mean	1598.44	1620.46	1617.36
2038 May	Mean	1592.86	1615.68	1612.22
2038 Jun	Mean	1589.88	1614.11	1610.33
2038 Jul	Mean	1591.04	1616.77	1612.61
2038 Aug	Mean	1592.30	1619.13	1614.69
2038 Sep	Mean	1594.49	1622.17	1617.60
2038 Oct	Mean	1597.06	1625.01	1620.56
2038 Nov	Mean	1600.79	1628.63	1624.29
2038 Dec	Mean	1602.22	1628.85	1624.82
2039 Jan	Mean	1600.75	1625.89	1622.55
2039 Feb	Mean	1597.75	1621.95	1619.05
2039 Mar	Mean	1593.33	1617.52	1614.58
2039 Apr	Mean	1589.36	1613.77	1610.75
2039 May	Mean	1585.35	1610.12	1606.93
2039 Jun	Mean	1583.09	1608.93	1605.62
2039 Jul	Mean	1584.85	1612.18	1608.61
2039 Aug	Mean	1586.94	1615.44	1611.63
2039 Sep	Mean	1590.06	1619.44	1615.53
2039 Oct	Mean	1594.02	1623.64	1619.83
2039 Nov	Mean	1599.07	1628.05	1624.26
2039 Dec	Mean	1602.29	1629.47	1626.05
2040 Jan	Mean	1602.15	1626.85	1624.18
2040 Feb	Mean	1599.80	1622.29	1620.16
2040 Mar	Mean	1595.71	1616.70	1614.71
2040 Apr	Mean	1591.45	1611.02	1609.19
2040 May	Mean	1585.99	1604.31	1602.40
2040 Jun	Mean	1581.87	1599.92	1597.91
2040 Jul	Mean	1581.14	1599.16	1597.11
2040 Aug	Mean	1580.23	1598.14	1595.99
2040 Sep	Mean	1579.99	1597.86	1595.68
2040 Oct	Mean	1580.72	1598.32	1596.29
2040 Nov	Mean	1582.41	1599.42	1597.43
2040 Dec	Mean	1581.94	1597.35	1595.59

Table B-1
Monthly Flow Report for WRD Leachate

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2041 Jan	Mean	1578.97	1592.27	1591.18
2041 Feb	Mean	1573.58	1585.20	1584.55
2041 Mar	Mean	1566.33	1577.11	1576.53
2041 Apr	Mean	1558.83	1568.82	1568.33
2041 May	Mean	1550.28	1560.03	1559.44
2041 Jun	Mean	1543.32	1553.92	1553.03
2041 Jul	Mean	1540.15	1552.08	1550.99
2041 Aug	Mean	1537.29	1550.60	1549.21
2041 Sep	Mean	1535.97	1550.85	1549.19
2041 Oct	Mean	1536.46	1552.61	1550.89
2041 Nov	Mean	1538.39	1555.31	1553.37
2041 Dec	Mean	1539.23	1555.79	1554.02
2042 Jan	Mean	1537.93	1553.43	1552.21
2042 Feb	Mean	1534.63	1549.12	1548.32
2042 Mar	Mean	1529.44	1543.44	1542.77
2042 Apr	Mean	1523.87	1537.45	1536.81
2042 May	Mean	1517.37	1530.80	1529.90
2042 Jun	Mean	1512.29	1526.41	1525.47
2042 Jul	Mean	1510.69	1526.11	1524.83
2042 Aug	Mean	1509.71	1526.44	1524.88
2042 Sep	Mean	1510.34	1528.43	1526.67
2042 Oct	Mean	1512.61	1531.94	1529.99
2042 Nov	Mean	1516.93	1536.95	1534.73
2042 Dec	Mean	1519.79	1539.41	1537.39
2043 Jan	Mean	1520.41	1538.82	1537.29
2043 Feb	Mean	1519.03	1536.16	1535.04
2043 Mar	Mean	1515.53	1531.77	1530.82
2043 Apr	Mean	1511.56	1526.95	1526.06
2043 May	Mean	1505.96	1520.68	1519.65
2043 Jun	Mean	1501.51	1516.68	1515.62
2043 Jul	Mean	1500.35	1516.44	1515.13
2043 Aug	Mean	1499.56	1516.75	1515.18
2043 Sep	Mean	1500.42	1518.86	1517.11
2043 Oct	Mean	1503.03	1522.47	1520.70
2043 Nov	Mean	1507.55	1527.64	1525.66
2043 Dec	Mean	1510.81	1530.37	1528.54
2044 Jan	Mean	1511.95	1530.12	1528.78
2044 Feb	Mean	1511.17	1527.84	1526.93
2044 Mar	Mean	1507.93	1523.45	1522.73
2044 Apr	Mean	1503.92	1518.31	1517.78
2044 May	Mean	1498.22	1511.59	1510.87
2044 Jun	Mean	1493.33	1506.89	1506.12
2044 Jul	Mean	1491.98	1506.22	1505.25
2044 Aug	Mean	1490.88	1505.92	1504.73
2044 Sep	Mean	1491.13	1507.20	1505.81
2044 Oct	Mean	1493.41	1510.49	1508.92
2044 Nov	Mean	1497.54	1514.93	1513.26
2044 Dec	Mean	1500.61	1517.28	1515.74
2045 Jan	Mean	1501.46	1516.60	1515.56
2045 Feb	Mean	1499.82	1513.35	1512.75
2045 Mar	Mean	1496.47	1508.80	1508.45
2045 Apr	Mean	1491.77	1502.85	1502.68
2045 May	Mean	1485.57	1495.70	1495.31
2045 Jun	Mean	1480.12	1490.24	1489.90
2045 Jul	Mean	1478.10	1488.87	1488.39
2045 Aug	Mean	1476.05	1487.64	1487.02
2045 Sep	Mean	1475.68	1488.40	1487.67
2045 Oct	Mean	1477.16	1490.89	1490.08
2045 Nov	Mean	1480.78	1495.22	1494.30
2045 Dec	Mean	1483.49	1497.55	1496.69
2046 Jan	Mean	1484.22	1497.18	1496.73
2046 Feb	Mean	1482.55	1494.31	1494.21
2046 Mar	Mean	1478.79	1489.64	1489.69

Table B-1
Monthly Flow Report for WRD Leachate

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
		Units (m3/day)	(m3/day)	(m3/day)
2046 Apr	Mean	1474.33	1484.28	1484.38
2046 May	Mean	1468.13	1477.33	1477.31
2046 Jun	Mean	1462.62	1472.13	1471.99
2046 Jul	Mean	1460.25	1470.79	1470.42
2046 Aug	Mean	1458.06	1469.85	1469.23
2046 Sep	Mean	1457.56	1470.97	1470.18
2046 Oct	Mean	1459.13	1474.10	1473.22
2046 Nov	Mean	1462.80	1478.92	1478.06
2046 Dec	Mean	1466.11	1482.40	1481.49
2047 Jan	Mean	1467.41	1482.98	1482.41
2047 Feb	Mean	1466.74	1481.38	1481.11
2047 Mar	Mean	1464.22	1478.18	1478.07
2047 Apr	Mean	1460.47	1473.60	1473.55
2047 May	Mean	1455.13	1467.60	1467.26
2047 Jun	Mean	1450.24	1463.14	1462.75
2047 Jul	Mean	1448.50	1462.51	1461.90
2047 Aug	Mean	1446.97	1462.22	1461.43
2047 Sep	Mean	1447.22	1464.15	1463.16
2047 Oct	Mean	1449.46	1467.98	1466.92
2047 Nov	Mean	1454.05	1473.74	1472.59
2047 Dec	Mean	1458.06	1477.96	1476.81
2048 Jan	Mean	1460.09	1479.23	1478.42
2048 Feb	Mean	1460.37	1478.43	1477.94
2048 Mar	Mean	1458.53	1475.66	1475.33
2048 Apr	Mean	1455.78	1471.89	1471.56
2048 May	Mean	1451.01	1466.23	1465.78
2048 Jun	Mean	1446.78	1462.35	1461.90
2048 Jul	Mean	1445.69	1462.17	1461.56
2048 Aug	Mean	1444.71	1462.29	1461.53
2048 Sep	Mean	1445.33	1464.36	1463.50
2048 Oct	Mean	1448.05	1468.37	1467.57
2048 Nov	Mean	1453.00	1474.21	1473.55
2048 Dec	Mean	1457.22	1478.44	1477.68
2049 Jan	Mean	1459.50	1479.80	1479.35
2049 Feb	Mean	1460.07	1479.22	1479.03
2049 Mar	Mean	1458.48	1476.63	1476.57
2049 Apr	Mean	1455.87	1472.98	1472.78
2049 May	Mean	1451.46	1467.45	1467.05
2049 Jun	Mean	1447.45	1463.66	1463.28
2049 Jul	Mean	1446.46	1463.40	1462.82
2049 Aug	Mean	1445.83	1463.77	1463.01
2049 Sep	Mean	1446.71	1466.05	1465.18
2049 Oct	Mean	1449.41	1469.96	1469.12
2049 Nov	Mean	1454.58	1475.97	1475.22
2049 Dec	Mean	1458.57	1479.69	1478.98
2050 Jan	Mean	1461.15	1481.24	1480.85
2050 Feb	Mean	1460.96	1479.88	1479.74
2050 Mar	Mean	1459.14	1477.13	1477.16
2050 Apr	Mean	1456.38	1473.36	1473.42
2050 May	Mean	1451.87	1468.05	1467.86
2050 Jun	Mean	1447.80	1464.11	1463.93
2050 Jul	Mean	1446.90	1464.03	1463.84
2050 Aug	Mean	1446.13	1464.23	1463.97
2050 Sep	Mean	1447.05	1466.50	1466.24
2050 Oct	Mean	1449.71	1470.33	1470.19
2050 Nov	Mean	1455.03	1476.58	1476.48
2050 Dec	Mean	1458.70	1480.06	1480.04
2051 Jan	Mean	1461.37	1481.86	1482.04
2051 Feb	Mean	1461.38	1480.81	1481.14
2051 Mar	Mean	1460.00	1478.62	1479.01
2051 Apr	Mean	1457.15	1474.87	1475.14
2051 May	Mean	1452.75	1469.55	1469.50
2051 Jun	Mean	1448.78	1465.87	1465.88

**Table B-1
Monthly Flow Report for WRD Leachate**

Date	Statistical value	Base Climate	Climate Change Scenario RCP 4.5	Climate Change Scenario RCP 8.5
Units		(m3/day)	(m3/day)	(m3/day)
2051 Jul	Mean	1447.93	1465.90	1465.85
2051 Aug	Mean	1447.23	1466.18	1466.09
2051 Sep	Mean	1448.22	1468.55	1468.47
2051 Oct	Mean	1451.25	1472.85	1472.87
2051 Nov	Mean	1456.53	1479.05	1479.18
2051 Dec	Mean	1461.12	1483.60	1483.78
2052 Jan	Mean	1463.77	1485.32	1485.70
2052 Feb	Mean	1464.50	1484.86	1485.47
2052 Mar	Mean	1463.06	1482.41	1483.11
2052 Apr	Mean	1460.47	1478.77	1479.39
2052 May	Mean	1456.18	1473.27	1473.61
2052 Jun	Mean	1452.10	1469.38	1469.77
2052 Jul	Mean	1451.37	1469.37	1469.66
2052 Aug	Mean	1450.64	1469.45	1469.71
2052 Sep	Mean	1451.72	1471.73	1472.03
2052 Oct	Mean	1454.62	1475.80	1476.23
2052 Nov	Mean	1460.15	1482.12	1482.64
2052 Dec	Mean	1464.42	1486.14	1486.77
2053 Jan	Mean	1466.96	1487.76	1488.55
2053 Feb	Mean	1467.63	1487.30	1488.30
2053 Mar	Mean	1466.43	1485.17	1486.23
2053 Apr	Mean	1464.02	1481.63	1482.69
2053 May	Mean	1459.70	1476.29	1477.06
2053 Jun	Mean	1456.03	1472.58	1473.22
2053 Jul	Mean	1455.29	1472.34	1472.94
2053 Aug	Mean	1454.59	1472.31	1472.88
2053 Sep	Mean	1455.63	1474.36	1475.00
2053 Oct	Mean	1458.34	1478.07	1478.89
2053 Nov	Mean	1463.62	1483.99	1485.13
2053 Dec	Mean	1467.71	1487.89	1489.12