RAINY RIVER MINE 2020 LARGE-BODIED FISH TISSUE MONITORING PROGRAM

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RAINY RIVER MINE 2020 LARGE-BODIED FISH TISSUE MONITORING PROGRAM

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EXECUTIVE SUMMARY

The Rainy River Mine (RRM) is a gold-silver mine located in northwestern Ontario in the District of Rainy River, approximately 65 km northwest of Fort Frances and 420 km west of Thunder Bay. The mine is located within the Pinewood River watershed and discharges into the Pinewood River. The mine occupies approximately 6,050 hectares of land and is owned by New Gold Inc. (New Gold).

The objective of the large-bodied fish tissue quality monitoring program is to assess whether the RRM has affected the concentrations of contaminants of potential concern (COPCs; arsenic, boron, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium and zinc) within the tissues of fish that reside in the portion of Pinewood River downstream of the effluent discharge. Concentrations were determined for muscle, liver, and ovary tissues of two sentinel sport fish species, Northern Pike (*Esox Lucius*) and Walleye (*Stizostedion vitreum*).

The results of this study determined that the majority of Northern Pike and Walleye did not exceed the mercury consumption advisory for vulnerable populations (0.5 mg/kg w.w.); however, exceedance of individual fish did occur. This is consistent with the results obtained during baseline assessments. Other than mercury (which typically is a concern in boreal environments due to wide spread atmospheric deposition), the only other metal to exceed a benchmark was selenium, which only occurred in liver tissue of two Northern Pike.

Comparison of mercury concentrations in muscle tissue of Northern Pike and Walleye captured during this period of study to individuals of the same species sampled during baseline studies indicated no difference (i.e., no statistical difference). Mercury concentration in liver tissue of Northern Pike captured in 2020 had a statistically higher level when compared to baseline. Liver tissue mercury concentrations of Walleye were not different between the current study (2020) and the baseline period (2012).

Trend analysis demonstrated that there are no increasing trends in mercury concentration within tissue (muscle, liver, ovary) for either Northern Pike or Walleye across years (2012 to 2020).

Overall, the data indicates that the RRM has not significantly impacted the metal tissue concentrations of Northern Pike or Walleye within the Pinewood River.

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1.0 INTRODUCTION

1.1 Site Description

The Rainy River Mine (RRM) is a gold-silver mine located in northwestern Ontario in the District of Rainy River, approximately 65 km northwest of Fort Frances and 420 km west of Thunder Bay (**Figure 1.1**). Located within the Pinewood River watershed, the Pinewood River flows past the RRM and continues for approximately 37 km until the confluence with Rainy River. The mine occupies approximately 6,050 hectares of land and is owned by New Gold Inc. (New Gold).

The RRM began processing ore in September 2017, fifty years after it was first explored in 1967. In 2005, the project was acquired by Rainy River Resources Ltd. with initial baseline studies conducted in 2008. In 2013, the RRM was acquired by New Gold Inc. An Environmental Assessment (EA) report, which included baseline conditions, was submitted in 2014 (AMEC 2014). Provincial and Federal EA approvals were granted in 2015 leading to the RRM site construction. The open pit mine became operational in 2017 and was constructed to include: ore storage facilities, a process plant, a Tailings Management Area (TMA), watercourse diversions, site drainage works, a fuel tank farm, explosives manufacturing facilities, explosives storage facilities, with plans for transition into underground operations (**Figure 1.2**).

The Environmental Effects Monitoring (EEM) studies at the RRM has demonstrated some influence on surface water quality as a result of mine construction/operation that was evident through significantly elevated levels of some constituents within the Pinewood River downstream of the RRM effluent discharge, compared to its upstream section (Minnow 2018, Ecometrix 2020). However, during the Phase 2 EEM in September 2020 dissolved mercury concentrations were below the detection limit and overall quarterly measures of mercury at locations upstream and downstream of the mine discharge do not indicate any elevation in mercury concentrations due to effluent.

Effluent discharge at the mine is intermittent and is regulated by the mine's provincial Environmental Compliance Approval (ECA) Number 7004-BC7KQ5 issued by the Ministry of Environment Conservation and Parks (MECP) February 11, 2020. This ECA provides flow and seasonal requirements for discharge. Discharge of both treated water and site run-off is intermittent and is based on precipitation rather than mine production with the mine being self-sufficient from a water recycling point of view. For example, in 2019 and 2020 discharge was limited to 29 days per year.

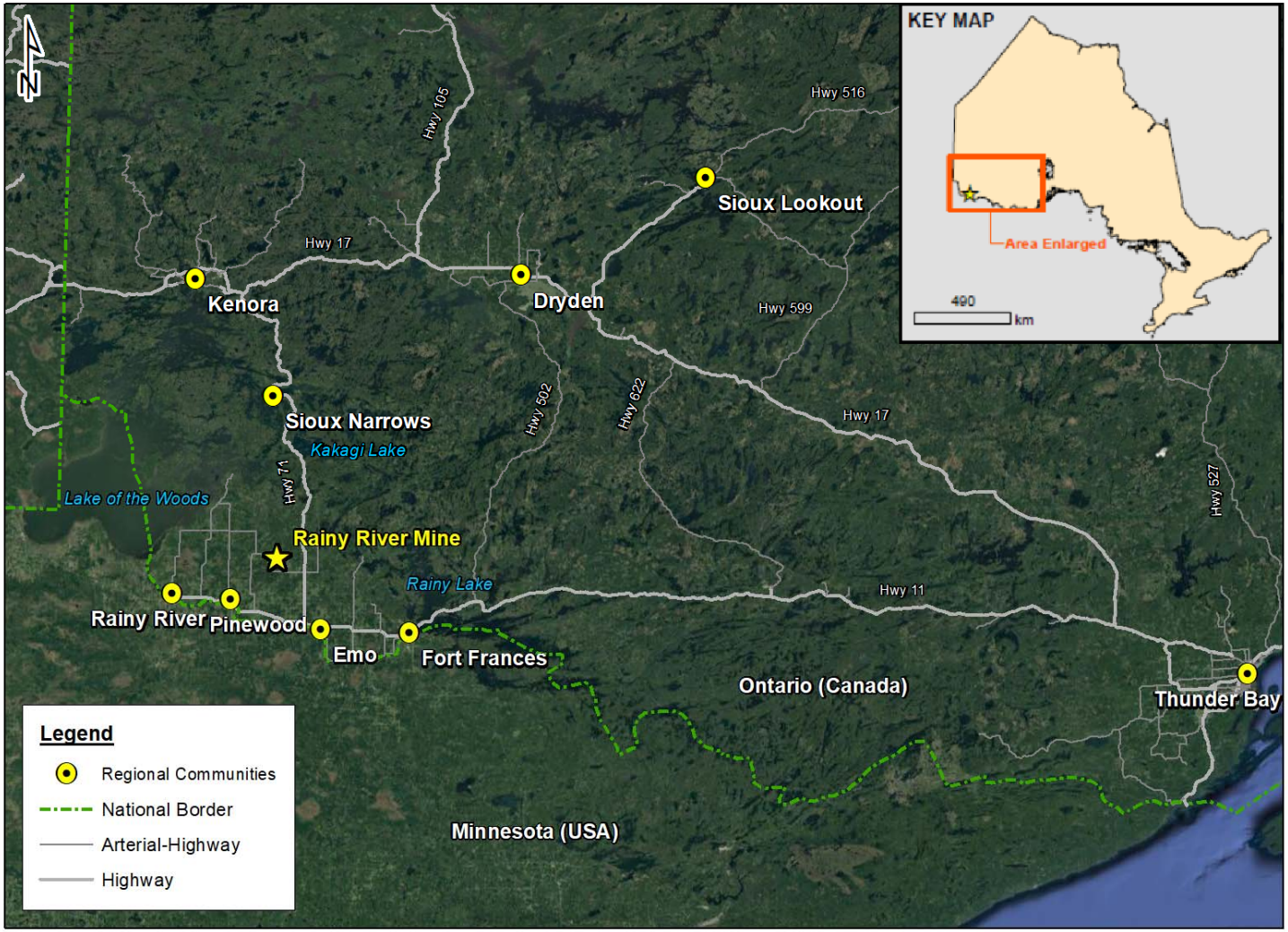
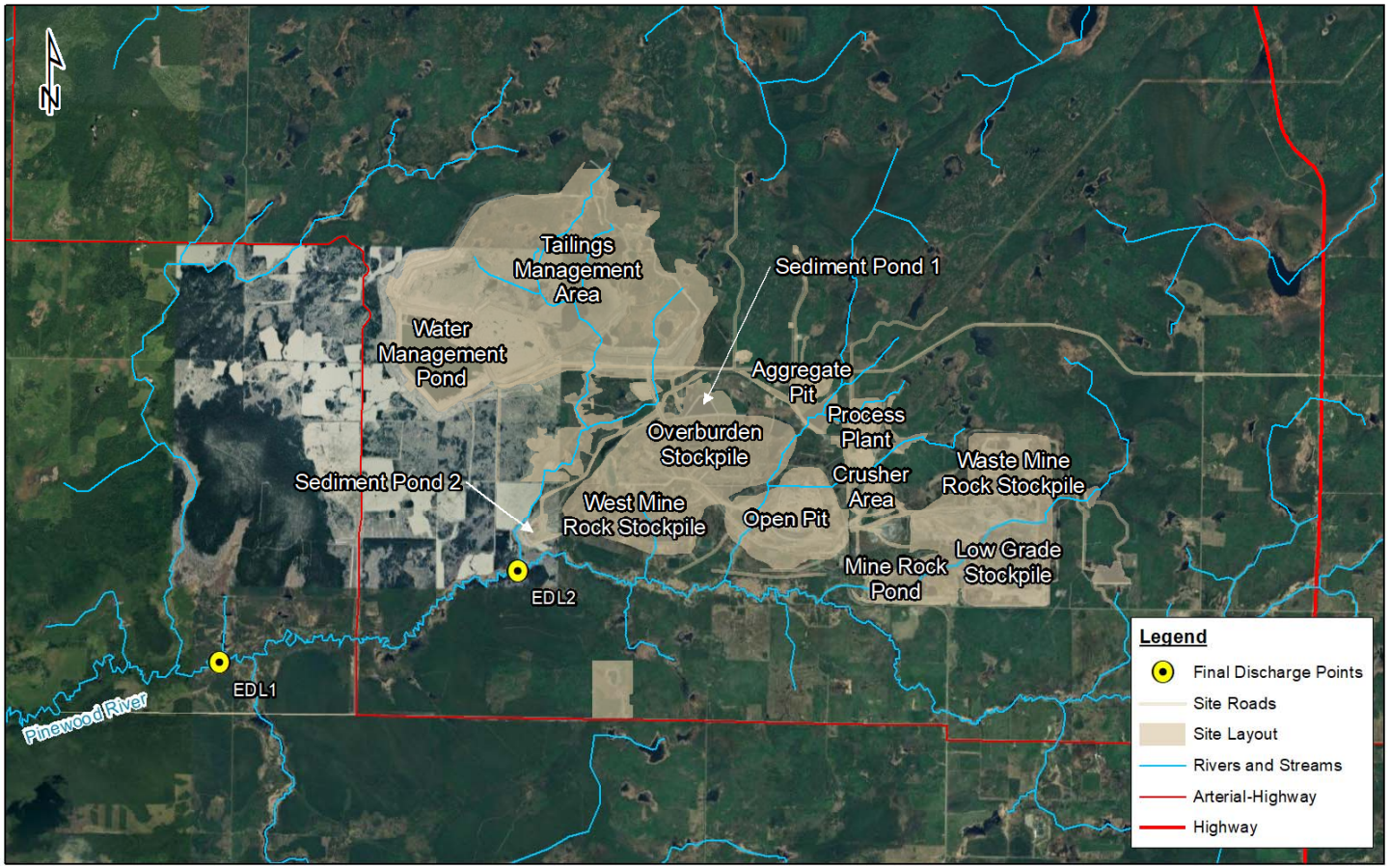


Figure 1.1: Regional Location of the Rainy River Mine.



Notes:

Basemap Imagery accessed from Google Maps from ESRI online. Ontario base data extracted from Land information Ontario (MNR) data warehouse.

Site Layout polygons provided by New Gold, 2018

Ecometrix

1:70,000 0 2.5 5 10 Kilometers

Figure 1.2: Layout of Rainy River Mine.

1.2 Project Background and Objective

The RRM fish tissue quality monitoring program is a requirement by both the Federal EA Approval and the original provincial ECA. The original ECA (Number 5178-9TUPD9) issued by the MECP on September 1, 2015 was replaced in February 2020 with ECA Number 7004-BC7KQ5. The requirements comprise both large-bodied and small-bodied fish surveys with the large-bodied fish survey to now be implemented every three years, and the small-bodied fish survey to be implemented annually. Logistical errors have resulted in some changes to the sampling. To date, large-bodied fish surveys were conducted annually from 2016 to 2018 and then again in 2020 (i.e., the current study) with small-bodied fish surveys conducted in 2019 and 2020 but not 2018. The frequency of the monitoring program has now been formalized with the next large-bodied tissue survey to take place in 2023.

The objective of the large-bodied fish tissue quality monitoring program is to assess whether the RRM has affected the concentrations of contaminants of potential concern (COPCs; arsenic, boron, cadmium, cobalt, copper, chromium, iron, lead, manganese, mercury, molybdenum, nickel, selenium and zinc) within the tissues of fish that reside in the portion of Pinewood River downstream of the effluent discharge. Concentrations are determined by sampling muscle, liver, and ovary tissues of two sentinel sport fish species, Northern Pike and Walleye. Any potential risk to human health by COPC concentrations that are affected by the RRM are to be described and communicated to stakeholders. This report details the methods and results of the 2020 large-bodied fish tissue study. The 2020 small-bodied fish tissue study is provided under separate cover.

1.3 Discharge Configuration

The below explanation of the discharges from the mine as now constituted are provided for context with respective to the tissue study.

During the construction phase of the project there were a number of temporary discharge points from the mine. However, consistent with provincial approvals, discharge from these locations ceased as of May 2018. After that time all water was directed to appropriate collection facilitates through constructed infrastructure until September 2019.

RRM now has a total of four discharge locations according to their current provincial permit (**Figure 1.3**):

1. Near SW24, the former location of the water intake pipe (also referred to as Water Discharge Pipeline and EDL1);

2. At the confluence of Loslo Creek with the Pinewood River (also referred to as EDL2);

3. Sediment Pond 1; and,

4. Sediment Pond 2.

Discharges 1 and 2 listed above were equipped with diffusers in December 2019 and September 2020, respectively and will be the main discharge locations used for the life of the mine. Mine planning predictions indicate that both sediment pond discharges will need to be used in the early part of the mine life to manage water levels through direct discharge to the West Creek diversion (i.e., Sediment Pond 1) and to the Pinewood River (i.e., Sediment Pond 2), with water collected in these ponds requiring pump-back and treatment as the mine-life progresses. Furthermore, as the mine life progresses EDL2 will primarily be used as the discharge location.

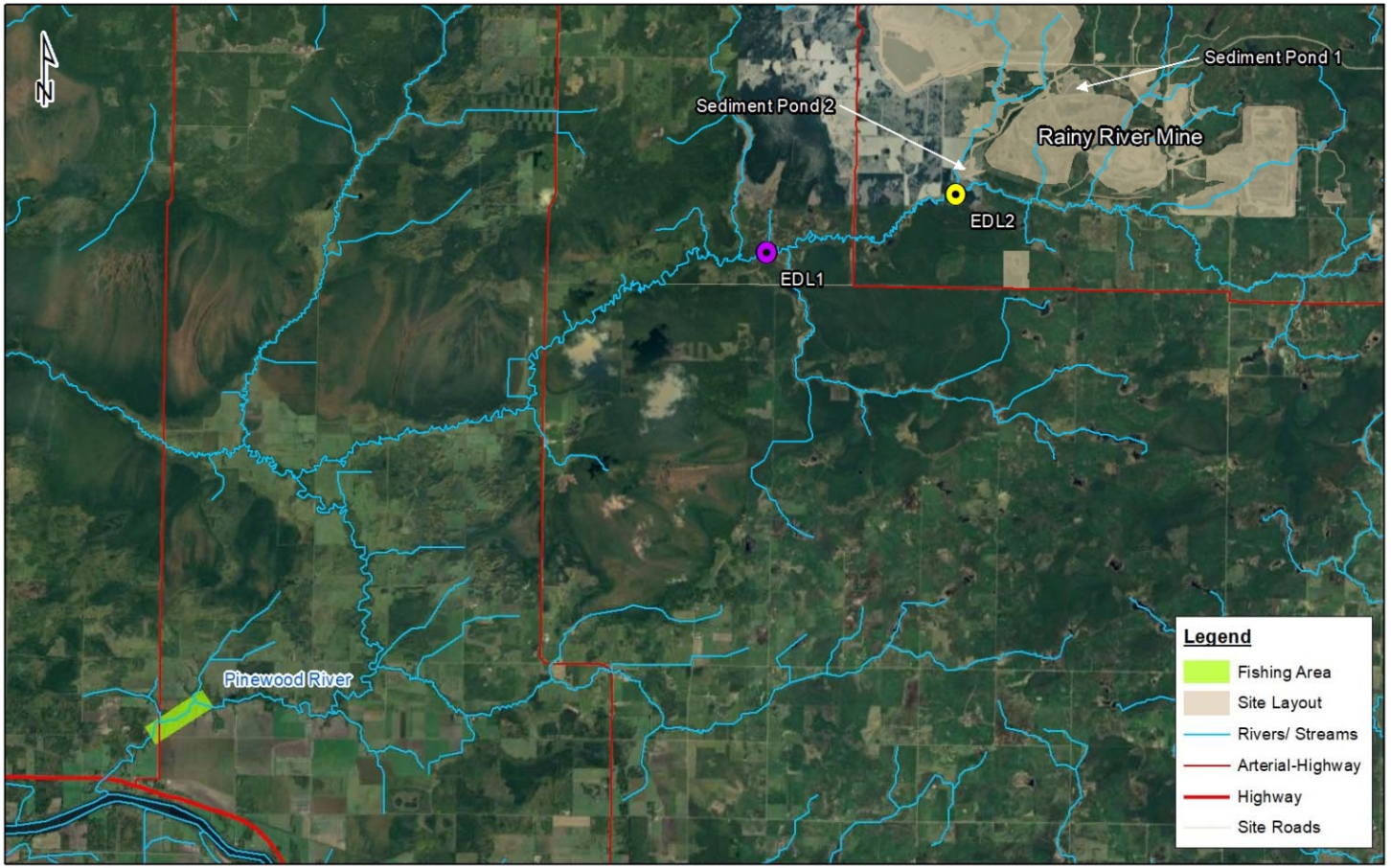


Figure 1.3: Locations of the Rainy River Mine Discharges in Relation to the Large-Bodied fishing Area.

2.0 Methods

2.1 Overall Study Design

The 2020 study included a fish tissue quality assessment in the Pinewood River downstream of the RRM extending to approximately 500 m upstream of the confluence with the Rainy River. As outlined in the Terms of Reference (TOR) (AMEC 2016), and provided as a requirement under the original ECA, tissue samples from fifteen individuals of two sentinel sport fish species, Northern Pike and Walleye, were collected. Tissue samples taken from each individual included muscle, liver and ovary (if possible). Samples were sent to an analytical laboratory for metal concentration analyses and the results were compared to provincial, federal, and international criteria for the protection of human health (BCMOE 2012, Health Canada 2007, Health Canada 2010, MECP 2015, IRIS 2018) as well as to baseline concentrations (AMEC 2013).

2.2 Fish Sampling

Fish sampling was performed under a Ministry of Natural Resources and Forestry (MNRF) License to Collect Fish for Scientific Purposes (Licence No. 1096566) provided in Appendix C. The fish tissue quality monitoring program was conducted downstream of RRM in Pinewood River from 09 to 11 September 2020. The sampling locations were recorded using a Global Position System (GPS; **Figure 2.1**). Tissue samples were collected from 15 Northern Pike and Walleye. Fish were captured through angling and gill netting (100-ft length gill net with a mesh size of 3", or 3 to 5"). All captured fish were identified to species and enumerated. Apart from Walleye and Northern Pike, all fish captured were released at the point of capture. Adult Northern Pike and Walleye (> 300 mm total length, based on MECP recommendations for the Rainy River; MECP 2015) were retained for further processing. Measurements of total and fork length were determined using a standard measuring board and fresh weight was measured using and electronic balance. The sex and any abnormalities for each fish were also noted. Ageing structures were collected from each retained Northern Pike (cleithra) and Walleye (dorsal spine) for subsequent laboratory age analysis. Tissue samples taken from each individual included muscle, liver and ovary. Tissues samples retained for analysis were placed in clean Whirl-Pak® bags and frozen until analysis. Samples were shipped to Bureau Veritas Laboratories with appropriately completed chain-of-custody (COC) forms for inductively couple plasma mass spectrometry (ICP-MS) metals analysis and moisture content; as well, muscle tissue samples were shipped to ALS Environmental to determine mercury concentration using the cold vapor atomic fluorescence spectroscopy (CVAFS) method.

The set and lift date and time as well as depth were recorded for each net set. Standard environmental data such as air temperature, water temperature, and precipitation were also recorded each day of the collections. Fish meristic data is provided in Appendix A. Documentation for all laboratory analyses is provided in Appendix B. Field survey information is provided in Appendix C.

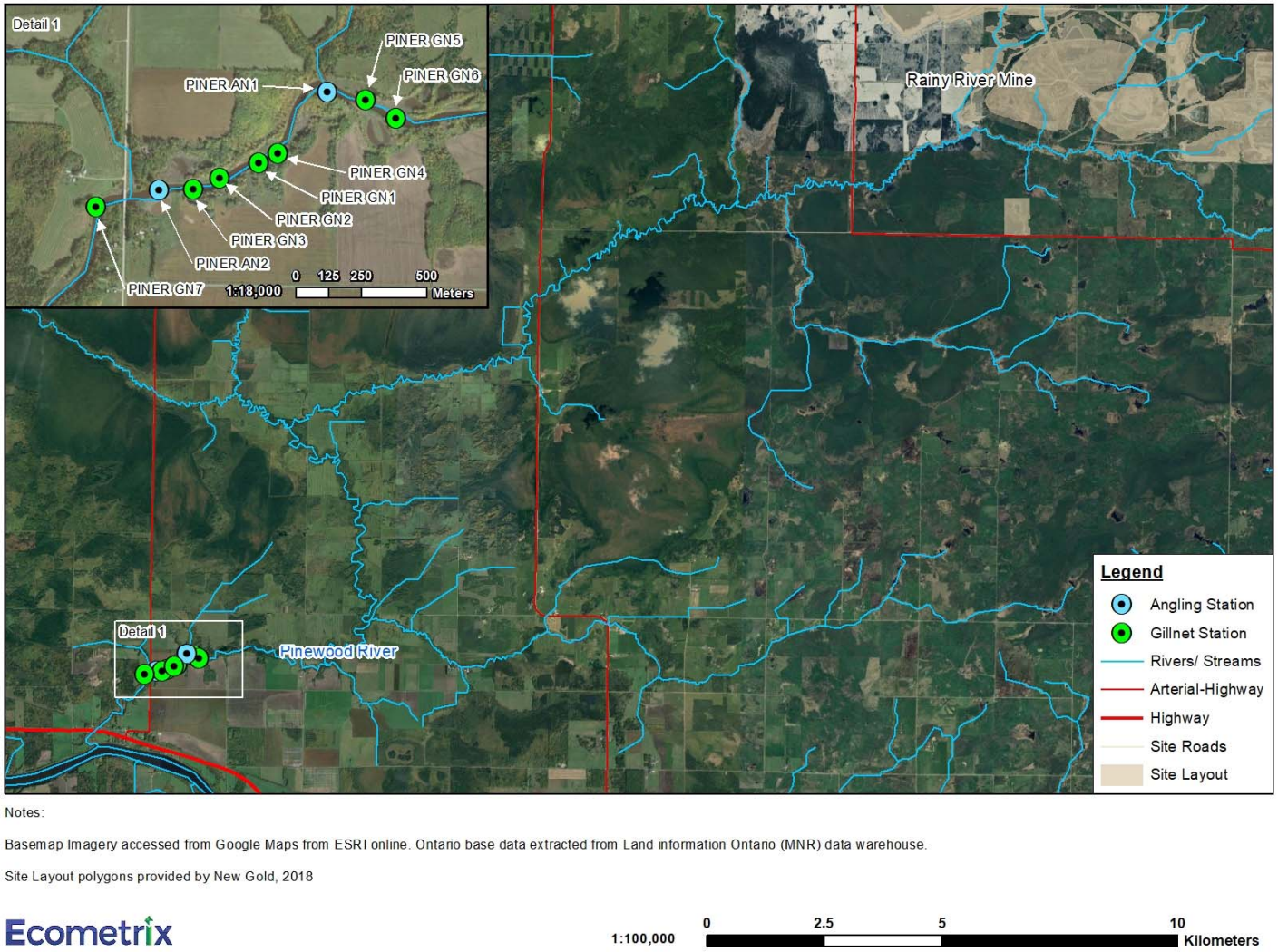


Figure 2.1: Fishing locations on the Pinewood River, Fall 2020.

2.3 Meristic Data

Fish catch data were compiled and summarized. Catch records and data on angling effort and gill net set durations were used to calculate total and species-specific catch-per-unit effort (CPUE) for each capture method in the Pinewood River.

2.4 Evaluation and Statistical Analysis

2.4.1 Comparison to Consumption Guidelines

2.4.1.1 Mercury

The consumption guidelines for the current study are the same as were used previously (Minnow 2019). Mercury is the only metal (i.e., metalloid) with a commercial guideline and multiple consumption level advisories have been established for fish muscle tissue (Health Canada 2007, BCMOE 2012, MECP 2015). Health Canada has established a standard of 0.5 mg/kg wet weight (w.w.) as the maximum acceptable concentration of mercury in commercially sold fish, enforceable by the Canadian Food Inspection Agency (Health Canada 2007). Although this guideline is only applicable to commercially sold fish, 0.5 mg/kg w.w. is also the level at which the MECP recommends a complete consumption restriction for vulnerable populations (i.e., women of childbearing age and children under 15; **Table 2.1**; MECP 2015). Summary statistics included sample size, mean, standard deviation, minimum, and maximum values. Summary statistics were calculated for each parameter by year.

Table 2.1: Fish consumption advisories for vulnerable and general populations based on fish tissue mercury concentrations.

Advisory recommended maximum number of meals per month	Fish tissue mercury concentration (mg/kg w.w.)	
	As consumed by vulnerable populations [a]	As consumed by the general population
32	0	0
16	0.06	0.15
12	0.12	0.3
8	0.16	0.4
4	0.25	0.6
2	-	1.2
0	0.5	1.8

Shaded cells indicate selected benchmark.
Abbreviations: w.w. = wet weight.
As described in the Guide to Eating Ontario Fish (MECP 2015).
[a] This group includes women of child-bearing age and children younger than 15.

2.4.1.2 Other Metals

Concentrations of other metals (i.e., metalloids) in muscle, liver, and ovary tissue were evaluated relative to consumption benchmarks derived from the lowest reported tolerable daily intake (TDI; Health Canada 2010, IRIS 2018) and established consumption rates for fish eating populations (OHM 1990, Richardson 1997, USEPA 1997, Health Canada 2010). With the assumption that typical adult body weight is 70 kg, the Fish Consumption Limit Benchmark is defined as:

Fish Consumption Limit Benchmark = TDI mg/kg x 70 kg / consumption rate (kg).

The consumption rates are presented in **Table 2.2** and include 6.5 g/day (USEPA 1997), 21.8 g/day (OHM 1990), and 111 g/day (Health Canada 2010 and Richardson 1997). A consumption rate of 21.8 g/day, which represents the upper limit consumption rate for Canadian population based on high caloric intake, was chosen to derive benchmark values due to the following rational:

- Initial investigations conducted during the EA determined that the RRM area does not support a significant commercial or recreational fishery and that no traditional activities are currently undertaken within the RRM area by local First Nation and/or Métis people (AMEC 2014).

- Further discussion with local First Nations community members in August 2016 confirmed that the Pinewood River does not support a significant traditional fishery, and that it is only occasionally used for recreational fishing, with most fishing located near the mouth (Minnow 2017).

The consumption rate of 21.8 g/day results in the derivation of conservative benchmarks, as it is more than double the mean consumption rate for anglers within a general population (8.0 g/d; USEPA 1997) and 21.8 g/day is the highest consumption level considered in development of fish advisories in Ontario.

Benchmarks were derived for 16 of the 18 COPC for which health criteria or TDI values were available, these include: antimony, arsenic, barium, beryllium, boron, cadmium, chromium, copper, lead, manganese, molybdenum, nickel, silver, strontium, uranium, and zinc Table 2.2. Cobalt and iron do not have applicable health criteria or TDI values (i.e., benchmarks could not be calculated).

2.4.1.3 Evaluation

Evaluation to benchmark values was conducted for all metals for the current year of sampling (2020), and for COPCs only across years.

For the current year of sampling (2020), the following summary statistics were calculated for all metals: sample size, mean, standard deviation, minimum, and maximum values.

Across years summary statistics included; sample size, mean and maximum concentrations.

If a maximum concentration exceeded a benchmark the number of individual fish that exceeded that benchmark was presented. Further evaluation inspected whether the exceedances where common across years for any particular COPC, or whether the exceedance may be indicative of future concern.

Table 2.2: Fish consumption benchmarks for metals including COPCs in fish tissue.

Metals	Tolerable daily intake (mg/kg day)[a]	Fish concentration benchmarks (mg/kg) based on		
		6.5 g/day[b]	21.8 g/day[c]	111 g/day[d]
Antimony	0.0004 [1]	4.3	1.3	0.3
Arsenic	0.0003 [1]	3.2	1.0	0.2
Barium	0.2 [1,2]	2,150	642	126
Beryllium	0.002 [1]	21.5	6.4	1.3
Boron	0.0175 [2]	188	56.2	11.0
Cadmium	0.001 [1,2]	10.8	3.2	0.6
Chromium	0.001 [2]	10.8	3.2	0.6
Cobalt	none available	-	-	-
Copper	0.091 [2,4]	980	292	57
Iron	none available	-	-	-
Lead	0.0036 [2]	38.8	11.6	2.3
Manganese	0.122 [2,4]	1,310	392	76.9
Molybdenum	0.005 [1]	53.8	16.1	3.2
Nickel	0.0011 [2,3]	11.8	3.5	0.7
Silver	0.005 [1]	53.8	16.1	3.2
Strontium	0.6 [1]	6,460	1,930	378
Uranium	0.0006 [2]	6.5	1.9	0.4
Zinc	0.3 [1]	3,230	963	189

Shaded cells indicate selected benchmark.
Abbreviations: COPC = Contaminants of Potential Concern.
[a] For values reported by both IRIS (2018) and Health Canada (2010), the lowest value was used to set a conservative benchmark.
[b] USEPA (1997) mean consumption rate for general population; mean value for anglers is 8.0 g/day, 95th percentile for anglers is 25 g/day.
[c] Upper limit consumption rate for Canadian population based on high caloric intake (OHM 1990). Also, the highest consumption level considered in development of fish advisories in Ontario.
[d] Health Canada (2010) consumption rate for screening level risk assessments, from Richardson (1997). Exceeds the average value for fishing subsistence populations (70 g/day; USEPA 1997).
[1] IRIS (2018).
[2] Health Canada (2010).
[3] Value based on nickel chloride.
[4] Most conservative concentration (tolerable daily intakes are defined on an age-group specific basis).

2.4.2 Comparison to Baseline

Statistical comparisons of mercury concentrations between the baseline year (2012) and the current year of sampling (2020) were conducted using analysis of covariance (ANCOVA) with fork length as the covariate as prescribed by Environment Canada's Metal Mining Technical Guidance Document (TGD; EC 2012). Having fork length as a covariate is necessary as mercury is known to bio-accumulate in fish tissue over time (e.g., Evers et al. 2011, Kidd and Batchelar 2012). Important to the ANCOVA procedure, is that the covariate (fork length) have overlapping ranges between years and that the analysis only be conducted on the overlapping range (EC 2012). Therefore, the range of overlap between years must first be determined for each species and tissue type before applying the ANOCVA procedure. Before analysis, data was tested for normality of residuals and homogeneity of variance. Ovaries were not collected during sampling in 2012 therefore comparison to baseline condition for this tissue type was not possible

The ANCOVA is a two-step procedure. First the ANCOVA procedure conducts an interaction test, to determine whether the slopes are parallel between years (i.e., does the linear relationship differ between years). If a significant interaction between year and the covariate is found (i.e., slopes are different), the difference between years is estimated using the max-min method, as prescribed by the TGD (EC 2012).

In cases where the interaction ANCOVA results in a non-significant interaction between years a second ANCOVA procedure was performed with the interaction term removed to determine if there is a difference between the estimated least square means of each year (i.e., it was previously determined that concentration responds to fork length similarly between years so this second procedure then tests whether the mean value of the linear relationship is different between years). As per TGD (EC 2012), a statistical significance was determined at a *P*-value of 0.10. The magnitude of the difference between years was calculated using the following formula:

[(exposed least square mean – reference least square mean)/ reference least square mean] x 100

Scatter plots of mercury tissue concentration with fork length were generated to facilitate interpretation of statistical results.

All statistical analyses were conducted using the statistical software program R (Version 3.1.0; R Core Team 2014) with the following packages; XLConnect, rstudioapi, car, psych, stats, latticeExtra, knitr, data.table, lawstat, lsmeans, multcomp, gdata, EnvStats, and effects.

2.4.3 Long-term Trends

To determine if mercury concentration is increasing through time (across years), a one-tailed Mann-Kendall test was performed. Similar to statistical comparisons with baseline (**Section 2.4.2**), statistical significance was determined at a *P*-value of 0.10.

Mercury concentrations vary with the size of fish (see **Section 2.4.2**), as such, the overlapping range of fork length between all study years was determined and least squared means were calculated based on a linear relationship between mercury concentration and fork length. To determine least squared means, the statistical assumptions of the linear model (i.e., normality of residuals and variance heterogeneity) were evaluated and transformation of data was conducted if necessary.

The least squared mean concentration of each tissue type was then plotted across years along with the Vulnerable Populations Advisory value of 0.5 mg/kg w.w., which is the same as with the Health Canada guideline for most commercially available fish (Health Canada 2007).

Least squared means were derived using the FORECAST function in Microsoft Excel® 2016 and the Mann-Kendall test was also conducted in Excel using the Real Statistics Resource Pack version 7.2 software (Zaiontz 2018) and the MK_Test function.

2.5 Data Quality Objectives

The data quality objectives (DQOs) for this study are identified in **Table 2.3**. The DQOs include laboratory objectives, such as; hold time, lowest detection limit, precision and accuracy; as well as, data entry and reporting review procedures.

Table 2.3: List of Data Quality Objectives

Type	Objective
Data Entry	Any spreadsheet that is prepared for statistical analysis will be completely checked (zero tolerance) so that the data is copied over to the appropriate index headings and that the data is presented accurately.
Completeness	Was the data collected as defined in the study design?
Hold Time	Did samples arrive to the lab on time and in proper condition to meet analytical requirements?
Lowest Detection Limit	The reported laboratory detection limits should be the same as were quoted by the laboratory. The detection limits should be less than the benchmarks used in this study.
Blank	Sample blanks should result in non-detects.
Precision	Agreement among repeated measurements. Laboratory duplicates should meet the processing laboratory's DQOs.
Accuracy	Certified reference materials and laboratory control samples should meet the laboratory's DQOs.
Review	All statistical results will be independently reviewed by a senior statistician including: confirming the accuracy of the test input parameters, confirming the appropriateness of the tests used (i.e., have all assumptions been met) and confirming the integrity of the test output files. The draft and final report will be reviewed by a project principle prior to submission to client.

3.0 Results

3.1 Data Quality Objectives

Assessment of the data quality objectives indicate that the data is suitable for the purposes of this report. A few instances occurred where acceptance criteria were not met **Table 3.1**; however, these instances do not affect the overall quality of the data.

Table 3.1: Summary of Data Quality Objectives Results

Type	Outcome
Data Entry	Spreadsheets were reviewed and no data errors were identified.
Completeness	All samples were collected as defined in the study design.
Hold Time	Samples met laboratory hold time and temperature requirements. Certified lab results are presented in Appendix B.
Lowest Detection Limit	Lowest detection limits were attained as quoted by the laboratory. All detection limits were lower than the benchmarks used in this study.
Blank	There were seven instances where blanks did not meet acceptance criteria; four times for lead, two times for zinc, and once for Sodium. Certified lab results are provided in Appendix B.
Precision	There were five instances where laboratory duplicates did not meet acceptance criteria; two times for strontium and once for aluminium, barium, and manganese. Certified lab results are provided in Appendix B.
Accuracy	There were six instances where reference material did not meet acceptance criteria; four times for lead and twice for tin. There were seven instances where the spiked blank did not meet acceptance criteria; four times for silver and three times for tin. Certified lab results are provided in Appendix B.
Review	Statistical results were reviewed by a senior statistician and reporting was reviewed by a project principle.

3.2 Fish Captured During the 2020 Program

Both gillnets and angling were employed during the 2020 large-bodied fish tissue monitoring program, which resulted in a total of eight species being caught (**Table 3.2**). The most abundant species captured was Northern Pike, followed by Walleye and White Sucker (*Catostomus commersoni*).

Table 3.2: Fishing effort summary of the 2020 large-bodied fish tissue monitoring program.

Species	Gill Nets		Angling		Total Catch
	Catch	CPUE [a]	Catch	CPUE [b]	
Northern Pike	32	0.0144	2	0.4444	34
Walleye	15	0.0061	1	0.2222	16
Sauger	7	0.0032	0	0.0000	7
White Sucker	18	0.0075	0	0.0000	18
Brown Bullhead	4	0.0017	0	0.0000	4
Rock Bass	1	0.0003	0	0.0000	1
Shorthead Redhorse	1	0.0004	0	0.0000	1
Longnose Sucker	1	0.0006	0	0.0000	1

Abbreviations: CPUE = catch per unit effort (units)

[a] CPUE = catch/foot*hours

[b] CPUE = catch/rod*hours

3.3 Northern Pike

3.3.1 Comparison to Consumption Benchmarks

3.3.1.1 Current Program Year (2020)

Mean values did not exceed the chosen benchmark guidelines for any metal in any tissue type (**Table 3.3**, **Table 3.4**, and **Table 3.5**). Four fish (ranging in size from 465 to 562 mm) did exceed the consumption guideline (0.5 mg/kg) for vulnerable populations (range 0.550 to 0.614 mg/kg w.w.; **Table 3.3**, Appendix B). Two of the same fish also had mercury concentrations (0.567 and 0.667 mg/kg w.w.) in liver tissue that also exceeded the consumption guidelines for vulnerable populations (**Table 3.4**). Additionally, the liver concentration of two fish exceeded British Columbia's consumption guideline for selenium of 3.60 mg/kg and had selenium concentrations of 3.78 and 3.79 mg/kg w.w. (**Table 3.4**; BCMOE 2012). No fish ovaries exceeded any metal benchmark guideline (**Table 3.5**).

3.3.1.2 Across Program Years (2012 to 2020)

Specific trend analysis of mercury bioaccumulation accounting for fish length is presented in **Section 3.3.3**. This current section provides an overview of potential emerging concerns but is not a trend analysis.

The only mean metal concentration within muscle tissue to exceed across years was mercury during baseline sampling in 2012 (**Table 3.6**). Since then, mean mercury values have remained below the benchmark; however, individual fish have exceeded the benchmark value as indicated by the maximum value column in **Table 3.6**.

Mean metal concentrations in liver tissue have not exceeded benchmark concentrations (**Table 3.7**). In recent years (2017, 2018, and 2020), some individual fish liver tissue concentrations have exceeded mercury and selenium benchmarks (**Table 3.7**).

No mean or individual fish ovary tissue concentrations have exceeded their respective benchmark values since monitoring began in 2012 (**Table 3.8**).

Table 3.3: Muscle tissue mercury concentrations of Northern Pike sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=15)	SD	Min	Max
Total Aluminum (Al)	0.20	-	0.96	0.77	0.21	2.72
Total Antimony (Sb)	0.0010	1.30	<0.001	0.0000	<0.001	<0.001
Total Arsenic (As)	0.0040	1.00	0.0817	0.0282	0.0416	0.1320
Total Barium (Ba)	0.010	642	0.071	0.034	0.010	0.125
Total Beryllium (Be)	0.0010	6.40	<0.001	0.0000	<0.001	<0.001
Total Bismuth (Bi)	0.0010	-	0.0028	0.0005	0.0019	0.0034
Total Boron (B)	0.20	56.20	<0.2	0.00	<0.2	<0.2
Total Cadmium (Cd)	0.0010	3.20	0.0012	0.0003	0.0010	0.0019
Total Calcium (Ca)	2.0	-	671.3	303.6	162.0	1390.0
Total Chromium (Cr)	0.010	3.20	0.017	0.027	<0.01	0.114
Total Cobalt (Co)	0.0013	-	0.0031	0.0008	<0.0013	0.0044
Total Copper (Cu)	0.010	292	0.104	0.009	0.090	0.122
Total Iron (Fe)	0.25	-	2.07	0.71	1.05	3.57
Total Lead (Pb)	0.0010	11.6	0.0320	0.0012	0.0298	0.0343
Total Magnesium (Mg)	0.40	-	310.80	15.57	279.00	338.00
Total Manganese (Mn)	0.010	392	0.659	0.276	0.126	1.110
Total Mercury (Hg)*	0.0020	0.50	0.4409	0.1091	0.2747	0.6140 [1]
Total Molybdenum (Mo)	0.0040	16.1	0.0041	0.0003	<0.004	0.0050
Total Nickel (Ni)	0.010	3.5	0.010	0.000	<0.01	0.010
Total Phosphorus (P)	2.0	-	2564.0	187.0	2330.0	3010.0
Total Potassium (K)	2.0	-	4002.7	158.7	3740.0	4280.0
Total Selenium (Se)	0.010	3.60	0.180	0.020	0.146	0.227
Total Silver (Ag)	0.0010	16.10	<0.001	0.0000	<0.001	<0.001
Total Sodium (Na)	2.0	-	346.7	84.9	231.0	466.0
Total Strontium (Sr)	0.010	1,930	0.337	0.175	0.035	0.705
Total Thallium (Tl)	0.00040	-	0.00228	0.00043	0.00177	0.00334
Total Tin (Sn)	0.020	-	0.020	0.000	0.020	0.020
Total Titanium (Ti)	0.020	-	0.189	0.022	0.155	0.234
Total Uranium (U)	0.00040	1.90	0.0004	0.0000	<0.0004	0.0005
Total Vanadium (V)	0.020	-	<0.02	0.000	<0.02	<0.02
Total Zinc (Zn)	0.040	963	4.431	0.657	3.330	5.790

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistic calculations used MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[1] Four fish exceeded the mercury benchmark [NP3 (0.609 mg/kg w.w.), NP5 (0.564 mg/kg w.w.), NP8 (0.550 mg/kg w.w.) and NP11 (0.614 mg/kg w.w.); fork length range 465 to 562 mm].

Table 3.4: Liver tissue mercury concentrations of Northern Pike sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=15)	SD	Min	Max
Total Aluminum (Al)	0.20	-	2.14	1.56	0.24	6.76
Total Antimony (Sb)	0.0010	1.30	0.0020	0.0014	<0.001	0.0066
Total Arsenic (As)	0.0040	1.00	0.0538	0.0175	0.0244	0.0850
Total Barium (Ba)	0.010	642	0.017	0.004	<0.01	0.028
Total Beryllium (Be)	0.0010	6.40	<0.001	0.0000	<0.001	<0.001
Total Bismuth (Bi)	0.0010	-	0.0086	0.0059	0.0041	0.0283
Total Boron (B)	0.20	56.20	<0.2	0.00	<0.2	<0.2
Total Cadmium (Cd)	0.0010	3.20	0.1982	0.1086	0.0304	0.4000
Total Calcium (Ca)	2.0	-	71.8	30.7	32.7	153.0
Total Chromium (Cr)	0.010	3.20	0.019	0.022	<0.01	0.095
Total Cobalt (Co)	0.0013	-	0.0657	0.0238	0.0153	0.1040
Total Copper (Cu)	0.010	292	36.520	15.813	10.300	69.800
Total Iron (Fe)	0.25	-	230.19	164.13	20.50	576.00
Total Lead (Pb)	0.0010	11.6	0.0089	0.0130	<0.004	0.0415
Total Magnesium (Mg)	0.40	-	177.07	25.00	140.00	214.00
Total Manganese (Mn)	0.010	392	1.289	0.231	0.836	1.560
Total Mercury (Hg)*	0.0020	0.50	0.3109	0.1553	0.1460	0.6670 [1]
Total Molybdenum (Mo)	0.0040	16.1	0.2272	0.0721	0.0845	0.3490
Total Nickel (Ni)	0.010	3.5	0.031	0.013	<0.01	0.060
Total Phosphorus (P)	2.0	-	2977.3	428.0	2300.0	3640.0
Total Potassium (K)	2.0	-	2801.3	327.7	2150.0	3320.0
Total Selenium (Se)	0.010	3.60	2.657	0.617	1.740	3.790 [2]
Total Silver (Ag)	0.0010	16.10	0.1310	0.0785	0.0168	0.3150
Total Sodium (Na)	2.0	-	891.2	112.0	753.0	1180.0
Total Strontium (Sr)	0.010	1,930	0.048	0.016	0.018	0.073
Total Thallium (Tl)	0.00040	-	0.00395	0.00073	0.00247	0.00530
Total Tin (Sn)	0.020	-	0.023	0.005	<0.02	0.039
Total Titanium (Ti)	0.020	-	0.160	0.032	0.095	0.197
Total Uranium (U)	0.00040	1.90	0.0009	0.0008	<0.0004	0.0031
Total Vanadium (V)	0.020	-	0.392	0.370	0.039	1.520
Total Zinc (Zn)	0.040	963	61.573	16.312	33.000	86.400

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistic calculations used MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[1] Two fish exceeded the mercury benchmark [NP3 (0.667 mg/kg w.w.) and NP11 (0.567 mg/kg w.w.); fork lengths of 511 and 562 mm].
[2] Two fish exceeded the selenium benchmark [NP3 (3.78 mg/kg w.w.) and NP4 (3.79 mg/kg w.w.); fork lengths of 511 and 431 mm].

Table 3.5: Ovary tissue mercury concentrations of Northern Pike sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=5)	SD	Min	Max
Total Aluminum (Al)	0.20	-	1.37	1.49	0.26	3.88
Total Antimony (Sb)	0.0010	1.30	<0.001	0.0000	<0.001	<0.001
Total Arsenic (As)	0.0040	1.00	0.0296	0.0060	0.0218	0.0366
Total Barium (Ba)	0.010	642	0.023	0.004	0.016	0.028
Total Beryllium (Be)	0.0010	6.40	<0.001	0.0000	<0.001	<0.001
Total Bismuth (Bi)	0.0010	-	<0.001	0.0000	<0.001	<0.001
Total Boron (B)	0.20	56.20	<0.2	0.00	<0.2	<0.2
Total Cadmium (Cd)	0.0010	3.20	0.0155	0.0098	0.0058	0.0296
Total Calcium (Ca)	2.0	-	238.2	147.1	101.0	487.0
Total Chromium (Cr)	0.010	3.20	0.017	0.011	<0.01	0.036
Total Cobalt (Co)	0.0013	-	0.0606	0.0229	0.0277	0.0874
Total Copper (Cu)	0.010	292	0.919	0.117	0.748	1.060
Total Iron (Fe)	0.25	-	42.04	13.92	24.30	56.80
Total Lead (Pb)	0.0010	11.6	0.0334	0.0013	0.0318	0.0354
Total Magnesium (Mg)	0.40	-	215.60	8.59	205.00	227.00
Total Manganese (Mn)	0.010	392	25.500	12.405	12.000	41.100
Total Mercury (Hg)*	0.0020	0.50	0.0757	0.0198	0.0424	0.0937
Total Molybdenum (Mo)	0.0040	16.1	0.0394	0.0202	0.0140	0.0575
Total Nickel (Ni)	0.010	3.5	0.014	0.001	0.012	0.015
Total Phosphorus (P)	2.0	-	3030.0	95.7	2910.0	3140.0
Total Potassium (K)	2.0	-	3992.0	138.1	3810.0	4120.0
Total Selenium (Se)	0.010	3.60	0.899	0.120	0.797	1.100
Total Silver (Ag)	0.0010	16.10	<0.001	0.0000	<0.001	<0.001
Total Sodium (Na)	2.0	-	749.6	116.3	624.0	895.0
Total Strontium (Sr)	0.010	1,930	0.107	0.067	0.047	0.220
Total Thallium (Tl)	0.00040	-	0.00422	0.00042	0.00387	0.00489
Total Tin (Sn)	0.020	-	0.020	0.001	0.020	0.021
Total Titanium (Ti)	0.020	-	0.183	0.057	0.140	0.280
Total Uranium (U)	0.00040	1.90	0.0005	0.0001	<0.0004	0.0007
Total Vanadium (V)	0.020	-	0.045	0.023	<0.02	0.067
Total Zinc (Zn)	0.040	963	74.040	12.601	57.700	87.200

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistic calculations used MLD if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.

Table 3.6: Muscle tissue mercury concentrations of Northern Pike sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012 (n = 70)		2015 (n = 15)		2016 (n = 15)		2017 (n = 15)		2018 (n = 15)		2020 (n = 15)	
		Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]
Arsenic (As)	1.00	0.1000	0.1000	0.0934	0.1328	0.0862	0.1434	0.0701	0.1290	0.0485	0.0896	0.0817	0.1320
Boron (B)	56.20	<0.50	<0.50	<0.22	<0.24	<0.20	<0.20	0.20	0.20	0.20	0.20	<0.20	<0.20
Cadmium (Cd)	3.20	<0.010	0.0100	0.0018	0.0073	<0.0013	0.0040	0.0010	0.0014	0.0013	0.0026	0.0012	0.0019
Chromium (Cr)	3.20	<0.30	0.300	0.024	0.088	0.022	0.075	0.013	0.030	0.010	0.015	0.017	0.114
Cobalt (Co)	-	0.0051	0.0080	0.0045	0.0051	<0.0044	0.0051	0.0042	0.0066	0.0049	0.0078	0.0031	0.0044
Copper (Cu)	292	0.506	0.900	0.183	0.275	0.154	0.224	0.146	0.387	0.171	0.236	0.104	0.122
Iron (Fe)	-	3.23	5.00	2.76	4.35	1.69	2.55	1.71	3.00	3.11	4.68	2.07	3.57
Lead (Pb)	11.6	0.0300	0.0300	0.0124	0.0745	<0.0043	0.0047	0.0043	0.0091	0.0069	0.0257	0.0040	0.0040
Manganese (Mn)	392	0.342	0.670	0.441	1.023	0.364	1.023	0.516	1.300	0.366	0.733	0.6594	1.11
Mercury (Hg)*	0.50	0.776	4.700 (5)	0.342	0.731 (3)	0.357	0.613 (2)	0.412	1.290 (2)	0.476	0.981 (4)	0.440	0.614 (4)
Molybdenum (Mo)	16.1	0.0514	0.1500	0.0056	0.0096	<0.0043	0.0047	<0.0040	<0.0040	<0.0040	<0.0040	0.0041	0.0052
Nickel (Ni)	3.5	0.103	3.700 (1)	<0.044	0.048	<0.043	0.047	<0.04	<0.04	<0.04	<0.04	0.01	0.01
Selenium (Se)	3.60	0.203	0.300	0.207	0.266	0.181	0.219	0.157	0.213	0.163	0.196	0.180	0.227
Zinc (Zn)	963	5.00	12.00	4.55	13.62	4.12	6.75	3.62	4.98	4.87	6.93	4.43	5.79

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, Max = maximum.
Summary statistic calculations used MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] Number of individual fish in exceedance of benchmark value in parentheses.

Table 3.7: Liver tissue mercury concentrations of Northern Pike sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012 (n = 70)		2015 (n = 15)		2016 (n = 15)		2017 (n = 15)		2018 (n = 15)		2020 (n = 15)	
		Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]
Arsenic (As)	1.00	0.1020	0.2000	0.0435	0.0812	0.0401	0.0556	0.0365	0.0900	0.0367	0.0589	0.0538	0.0850
Boron (B)	56.20	<0.50	0.50	<0.28	<0.394	0.26	0.34	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	3.20	0.0357	0.1900	0.0537	0.1362	0.0734	0.1820	0.1020	0.2060	0.1289	0.4445	0.1982	0.4000
Chromium (Cr)	3.20	<0.300	0.300	0.039	0.146	0.023	0.068	0.036	0.296	0.011	0.018	0.019	0.095
Cobalt (Co)	-	0.0361	0.0820	0.0434	0.0810	0.0505	0.0749	0.0590	0.1220	0.0628	0.1326	0.0657	0.1040
Copper (Cu)	292	15.465	38.000	24.976	54.026	24.480	45.924	30.853	46.200	35.310	78.100	36.520	69.800
Iron (Fe)	-	118.71	360.00	121.97	449.46	202.62	497.84	150.31	369.00	192.35	484.00	230.19	576.00
Lead (Pb)	11.6	0.0312	0.0900	0.0439	0.5017	0.0071	0.0170	0.0061	0.0100	0.0043	0.0074	0.0089	0.0415
Manganese (Mn)	392	1.404	3.000	1.440	2.883	1.141	1.656	1.241	2.160	1.371	2.477	1.289	1.560
Mercury (Hg)	0.50	0.148	0.300	0.139	0.386	0.125	0.325	0.258	1.320 (1)	0.297	0.903 (1)	0.306	0.667 (2)
Molybdenum (Mo)	16.1	0.1763	0.3000	0.1482	0.2335	0.1790	0.2794	0.2061	0.2980	0.2202	0.3110	0.2272	0.3490
Nickel (Ni)	3.5	0.050	0.050	<0.057	<0.0788	0.053	0.075	0.048	0.155	0.041	0.053	0.031	0.060
Selenium (Se)	3.60	1.439	2.500	1.513	2.338	1.751	2.530	2.201	4.350 (1)	1.988	2.372	2.657	3.790 (2)
Zinc (Zn)	963	38.20	72.00	46.92	83.30	37.82	52.51	44.50	55.70	47.99	67.82	61.57	86.40

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, Max = maximum.
Summary statistic calculations used MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] Number of individual fish in exceedance of benchmark value in parentheses.

Table 3.8: Ovary tissue mercury concentration of Northern Pike sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012 [c]		2015 (n = 9)		2016 (n = 7)		2017 (n = 7)		2018 (n = 9)		2020 (n = 5)	
		Mean	Max [d]	Mean	Max [d]	Mean	Max [d]	Mean	Max [d]	Mean	Max [d]	Mean	Max [d]
Arsenic (As)	1.00	-	-	0.0251	0.0339	0.0223	0.0427	0.0188	0.0252	0.0252	0.0329	0.0296	0.0366
Boron (B)	56.20	-	-	<0.22	<0.26	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	3.20	-	-	0.0076	0.0133	0.0060	0.0097	0.0098	0.0133	0.0105	0.0202	0.0155	0.0296
Chromium (Cr)	3.20	-	-	0.017	0.044	0.018	0.039	0.010	0.010	0.011	0.018	0.017	0.036
Cobalt (Co)	-	-	-	0.0673	0.0886	0.0566	0.0802	0.0545	0.0820	0.0699	0.1073	0.0606	0.0874
Copper (Cu)	292	-	-	1.184	1.485	1.256	1.380	0.936	1.130	1.047	1.200	0.919	1.060
Iron (Fe)	-	-	-	54.85	71.53	51.50	61.22	39.80	53.20	43.21	67.60	42.04	56.80
Lead (Pb)	11.6	-	-	0.0076	0.0256	0.0037	0.0039	0.0040	0.0040	0.0050	0.0133	0.0334	0.0354
Manganese (Mn)	392	-	-	35.439	56.350	33.708	44.460	21.971	29.700	26.905	40.420	25.500	41.100
Mercury (Hg)	0.50	-	-	0.031	0.067	0.029	0.052	0.070	0.257	0.082	0.167	0.076	0.094
Molybdenum (Mo)	16.1	-	-	0.0416	0.0507	0.0527	0.0621	0.0407	0.0550	0.0535	0.0772	0.0394	0.0575
Nickel (Ni)	3.5	-	-	<0.044	<0.051	0.041	0.053	<0.040	0.040	<0.040	0.040	0.014	0.015
Selenium (Se)	3.60	-	-	1.167	1.705	0.965	1.737	1.171	3.360	0.649	1.080	0.899	1.100
Zinc (Zn)	963	-	-	79.96	126.76	70.10	85.46	69.29	80.30	59.57	67.16	74.04	87.20

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, max = maximum.
Summary statistic calculations used MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] No ovaries were sampled during baseline (2012).
[d] Number of individual fish in exceedance of benchmark value in parentheses.

3.3.2 Mercury Comparison of Current Year (2020) to Baseline (2012)

The Northern Pike data was Log_{10} transformed to best meet the assumptions of ANCOVA (i.e., normality of residuals and variance heterogeneity). For both muscle and liver tissue the range of fork length overlap between the 2012 and 2020 datasets was 420 to 550 mm. As such, this resulted in 12 fish from 2012 and 13 fish from 2020 to be included in the ANCOVA procedure. Scatterplots demonstrated that fork length was adequately represented across the range of fork length overlap (**Figure 3.1**).

There was no statistical difference in Northern Pike mean muscle tissue mercury concentration between the current study year (2020) and baseline (2012; **Table 3.9**).

Mean liver tissue mercury concentration of Northern Pike sampled in the current study was statistically higher than Northern Pike sampled during the baseline study (2012; **Table 3.9**).

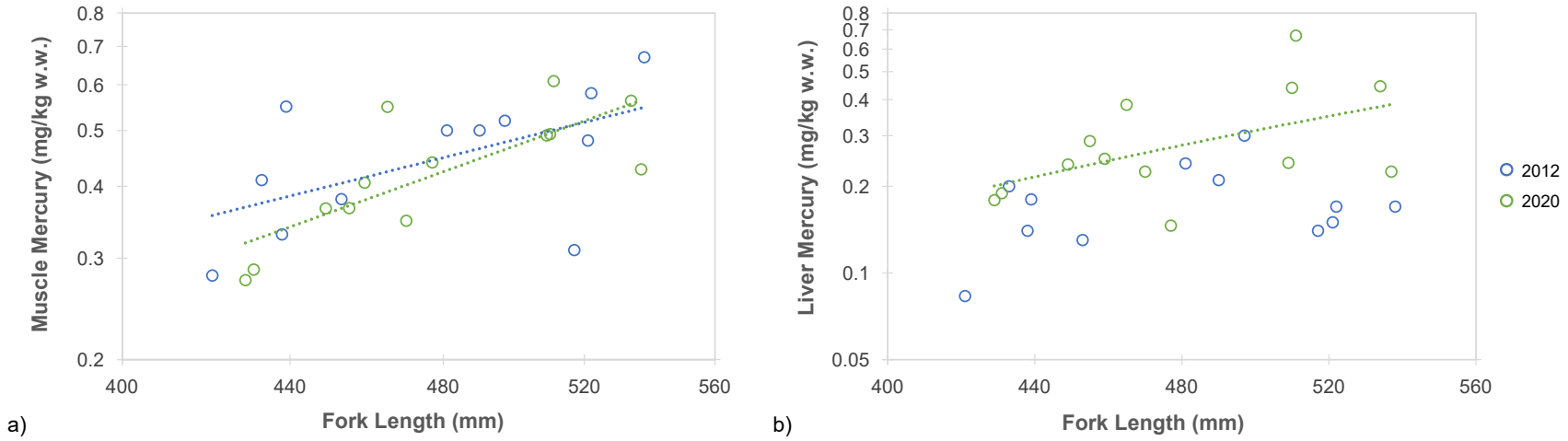


Figure 3.1: Scatter plots of Northern Pike mercury concentrations in tissue, a) muscle and b) liver versus fork length sampled in the Pinewood River during baseline (2012) and the current sampling program year (2020).

Note: Only the range of fork length overlap between years is plotted (420 to 550 mm). Linear regression line displayed if significant ($P < 0.1$). Axes are Log_{10} scaled.

Table 3.9: Statistical differences between Northern Pike sampled within the Pinewood River during baseline (2012) and the current sampling program year (2020).

Variables		Sample Size		Test	ANCOVA Statistics		Response Mean			Test *P*-value (Year)	Magnitude of Difference (%)[a]
					Interaction Model	Covariate Value for Comparisons					
Response	Covariate	2012	2020		Interaction *P*-value		Statistic	2012	2020		Relative to Baseline (2012)
Log_{10} Muscle Mercury (mg/kg w.w.)	Log_{10} Fork Length (mm)	12	13	ANCOVA	0.463	478	Adjusted Mean (Geometric)	0.446	0.420	0.464	-5.8
Log_{10} Liver Mercury (mg/kg w.w.)	Log_{10} Fork Length (mm)	12	13	ANCOVA	0.391	478	Adjusted Mean (Geometric)	0.168	0.274	0.002	63.2

Notes:
Shaded cell indicates *P*-value < 0.10
Mean and covariate values have been back transformed for ease of interpretation.
Statistics were conducted using data within range of fork length overlap between years (i.e., 420 to 550 mm).
[a] Magnitude of difference is calculated on based on the transformed data used to determine statistical significance.

3.3.3 Long-term Mercury Trend Analysis

The Northern Pike data was Log_{10} transformed to best meet the assumptions of the linear model (i.e., normality of residuals and variance heterogeneity) that was used to derive the least square mean of mercury concentration per tissue type for each year. As stated in **Section 2.4.3**, the fact that mercury bioaccumulates requires that analysis of trends be standardized to a common body length among datasets. The common range of fork length overlap among sampling years was 420 to 550 mm for muscle and liver, and 460 to 600 mm for ovaries.

In general mercury concentrations were higher during the baseline sampling year (2012) and declined until 2017, after which concentrations have increased (**Figure 3.2**). This apparent cyclic pattern may be due to the import of methylated mercury with dissolved organic carbon from the surrounding soils/landscape during years of increased precipitation. As expected for mercury, the concentration in all tissue types fluctuate synchronously through time, with muscle, liver and ovaries having highest, intermediate and lowest concentrations, respectively (**Figure 3.2**).

Mann-Kendall trend analysis did not result in a significant increasing trend for any tissue type since the baseline study (**Table 3.10**).

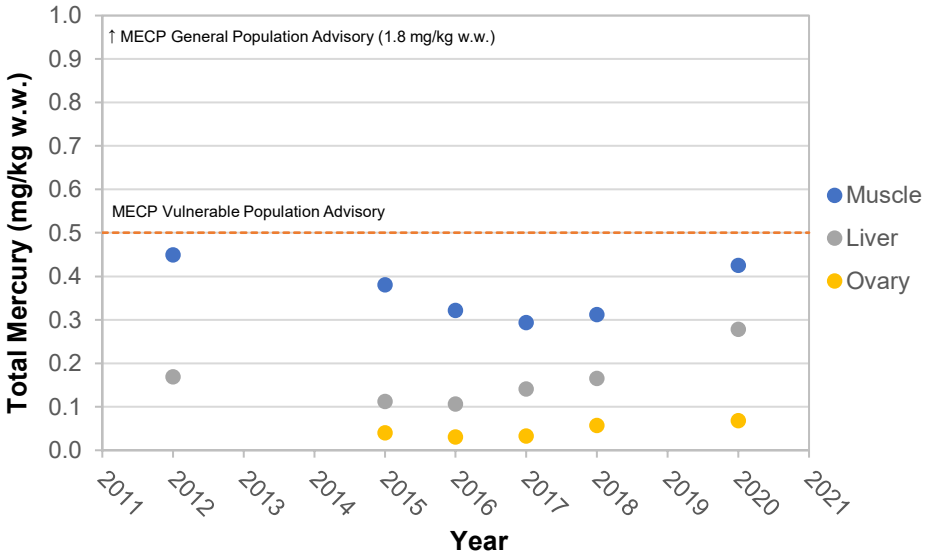


Figure 3.2: Scatter plot of least squared mean mercury tissue concentrations in Northern Pike sampled in the Pinewood River between baseline (2012) and the current sampling program (2020).

Note: Least squared means were calculated using the range of fork length overlap between years; Muscle and Liver - 420 to 550 mm, ovary - 460 to 600 mm. Ovaries were not sampled during the baseline (2012) year.

Table 3.10: Statistical results of Mann-Kendall trend analyses of least squared mean mercury tissue concentrations in Northern Pike sampled in the Pinewood River between baseline (2012) and the current sampling program (2020).

Tissue	MK-statistic	Standard Error	z-statistic	*P*-value	Trend
Muscle	-5	5.323	-0.751	0.226	No
Liver	5	5.323	0.751	0.226	No
Ovary	6	4.082	1.225	0.110	No

Notes:
Trend analysis for upward trend only (one-tail test).
Shaded cell indicates *P*-value < 0.10
Statistics conducted on data presented in Figure 3.2.

3.4 Walleye

3.4.1 Comparison to Consumption Benchmarks

3.4.1.1 Current Program Year (2020)

Mean values did not exceed the chosen benchmark for any metal in any tissue type (

Table 3.11, **Table 3.12**, and **Table 3.13**). Four fish (ranging in size from 354 to 650 mm) did have muscle mercury concentrations that exceed the consumption guidelines 0.5 mg/kg for vulnerable populations (range 0.509 to 1.88 mg/kg w.w.;

Table 3.11, Appendix B). One of the same fish also had a liver tissue mercury concentration that also exceeded the consumption guidelines 0.5 mg/kg for vulnerable populations with a concentration value of 1.440 mg/kg w.w. (**Table 3.12**). No fish ovaries exceeded benchmark guidelines (**Table 3.13**).

3.4.1.2 Across Program Years (2012 to 2020)

Specific trend analysis of mercury bioaccumulation accounting for fish length is presented in **Section 3.4.3**. This current section provides an overview of potential emerging concerns but is not a trend analysis.

The only mean metal concentration within muscle tissue to exceed benchmark across years was mercury during baseline sampling in 2012 (**Table 3.14**). Mean mercury values have remained below benchmark since 2012; however, individual fish have exceeded the benchmark value as indicated by the maximum value column in **Table 3.14**.

With the exception of mercury, no mean or maximum metal concentration within liver tissue has exceeded benchmark concentrations (**Table 3.15**). Mean mercury concentrations in liver tissue have not exceeded benchmark concentrations; however, some individual fish did exceed the mercury benchmark concentration since baseline sampling began in 2012 (**Table 3.15**).

No mean or individual fish ovary tissue concentrations have exceeded their respective benchmark values since monitoring began in 2012 (**Table 3.16**).

Table 3.11: Muscle tissue mercury concentrations of Walleye sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=15)	SD	Min	Max
Total Aluminum (Al)	0.20	-	0.85	1.01	<0.2	4.00
Total Antimony (Sb)	0.0010	1.30	<0.001	0.0000	<0.001	<0.001
Total Arsenic (As)	0.0040	1.00	0.0600	0.0341	0.0300	0.1520
Total Barium (Ba)	0.010	642	0.014	0.007	<0.01	0.037
Total Beryllium (Be)	0.0010	6.40	<0.001	0.0000	<0.001	<0.001
Total Bismuth (Bi)	0.0010	-	0.0023	0.0011	0.0010	0.0054
Total Boron (B)	0.20	56.20	<0.2	0.00	<0.2	<0.2
Total Cadmium (Cd)	0.0010	3.20	0.0010	0.0001	<0.001	0.0013
Total Calcium (Ca)	2.0	-	192.9	108.2	93.2	469.0
Total Chromium (Cr)	0.010	3.20	0.012	0.007	<0.01	0.037
Total Cobalt (Co)	0.0013	-	0.0014	0.0003	<0.0013	0.0020
Total Copper (Cu)	0.010	292	0.107	0.008	0.088	0.121
Total Iron (Fe)	0.25	-	1.64	0.54	0.84	3.17
Total Lead (Pb)	0.0010	11.6	0.0322	0.0016	0.0286	0.0346
Total Magnesium (Mg)	0.40	-	313.80	21.47	285.00	377.00
Total Manganese (Mn)	0.010	392	0.112	0.022	0.076	0.156
Total Mercury (Hg)*	0.0020	0.50	0.4792	0.4233	0.2037	1.8768 [1]
Total Molybdenum (Mo)	0.0040	16.1	<0.004	0.0000	<0.004	<0.004
Total Nickel (Ni)	0.010	3.5	0.022	0.035	<0.01	0.144
Total Phosphorus (P)	2.0	-	2454.0	160.0	2230.0	2920.0
Total Potassium (K)	2.0	-	4512.0	359.4	4000.0	5460.0
Total Selenium (Se)	0.010	3.60	0.226	0.032	0.153	0.296
Total Silver (Ag)	0.0010	16.10	<0.001	0.0000	<0.001	<0.001
Total Sodium (Na)	2.0	-	342.9	71.3	230.0	464.0
Total Strontium (Sr)	0.010	1,930	0.039	0.031	0.015	0.131
Total Thallium (Tl)	0.00040	-	0.00365	0.00037	0.00285	0.00427
Total Tin (Sn)	0.020	-	0.022	0.008	<0.02	0.052
Total Titanium (Ti)	0.020	-	0.177	0.018	0.153	0.217
Total Uranium (U)	0.00040	1.90	<0.0004	0.0000	<0.0004	<0.0004
Total Vanadium (V)	0.020	-	<0.02	0.000	<0.02	<0.02
Total Zinc (Zn)	0.040	963	2.942	0.150	2.720	3.170

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[1] Four fish exceeded the mercury benchmark [WA1 (0.757 mg/kg w.w.), WA6 (1.88 mg/kg w.w.), WA8 (0.509 mg/kg w.w.), WA12 (0.746 mg/kg w.w.); fork length range 354 to 650 mm].

Table 3.12: Liver tissue mercury concentrations of Walleye sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=15)	SD	Min	Max
Total Aluminum (Al)	0.20	-	0.67	0.28	0.32	1.17
Total Antimony (Sb)	0.0010	1.30	<0.001	0.0000	<0.001	<0.001
Total Arsenic (As)	0.0040	1.00	0.0561	0.0282	0.0204	0.1140
Total Barium (Ba)	0.010	642	0.015	0.007	<0.01	0.034
Total Beryllium (Be)	0.0010	6.40	<0.001	0.0000	<0.001	<0.001
Total Bismuth (Bi)	0.0010	-	0.0018	0.0011	<0.001	0.0046
Total Boron (B)	0.20	56.20	<0.2	0.00	<0.2	<0.2
Total Cadmium (Cd)	0.0010	3.20	0.2238	0.1503	0.0789	0.5550
Total Calcium (Ca)	2.0	-	106.3	39.6	56.6	206.0
Total Chromium (Cr)	0.010	3.20	0.011	0.001	<0.01	0.014
Total Cobalt (Co)	0.0013	-	0.1856	0.1140	0.0525	0.4110
Total Copper (Cu)	0.010	292	2.230	2.994	0.736	13.000
Total Iron (Fe)	0.25	-	137.79	44.60	31.50	213.00
Total Lead (Pb)	0.0010	11.6	0.0253	0.0156	<0.004	0.0521
Total Magnesium (Mg)	0.40	-	173.47	16.74	149.00	207.00
Total Manganese (Mn)	0.010	392	1.267	0.341	0.825	2.090
Total Mercury (Hg)*	0.0020	0.50	0.2257	0.3409	0.0973	1.4400
Total Molybdenum (Mo)	0.0040	16.1	0.1283	0.0285	0.0812	0.1880
Total Nickel (Ni)	0.010	3.5	0.023	0.022	<0.01	0.100
Total Phosphorus (P)	2.0	-	2856.7	314.3	2360.0	3600.0
Total Potassium (K)	2.0	-	2850.7	230.1	2360.0	3340.0
Total Selenium (Se)	0.010	3.60	0.916	0.108	0.791	1.200
Total Silver (Ag)	0.0010	16.10	0.0024	0.0054	<0.001	0.0219
Total Sodium (Na)	2.0	-	1181.7	136.4	966.0	1500.0
Total Strontium (Sr)	0.010	1,930	0.058	0.023	0.030	0.116
Total Thallium (Tl)	0.00040	-	0.01051	0.00270	0.00717	0.01690
Total Tin (Sn)	0.020	-	0.022	0.002	<0.02	0.025
Total Titanium (Ti)	0.020	-	0.181	0.038	0.118	0.257
Total Uranium (U)	0.00040	1.90	0.0005	0.0002	<0.0004	0.0011
Total Vanadium (V)	0.020	-	0.027	0.012	<0.02	0.058
Total Zinc (Zn)	0.040	963	18.600	2.978	15.100	26.500

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[1] One fish exceeded mercury benchmark [WA6 (1.440 mg/kg w.w.); fork length of 650 mm].

Table 3.13: Ovary tissue mercury concentrations of Walleye sampled in the Pinewood River, 2020.

Parameter	Lowest Detection Limit	Benchmark [a,b]	Mean (n=7)	SD	Min	Max
Total Aluminum (Al)	0.20	-	2.71	2.74	0.34	8.48
Total Antimony (Sb)	0.0010	1.30	<0.002	0.0005	<0.001	<0.002
Total Arsenic (As)	0.0040	1.00	0.0383	0.0181	0.0135	0.0625
Total Barium (Ba)	0.010	642	0.044	0.023	0.014	0.080
Total Beryllium (Be)	0.0010	6.40	<0.002	0.0005	<0.001	<0.002
Total Bismuth (Bi)	0.0010	-	0.0018	0.0007	0.0010	0.0032
Total Boron (B)	0.20	56.20	0.42	0.62	<0.2	1.95
Total Cadmium (Cd)	0.0010	3.20	0.0061	0.0032	0.0024	0.0119
Total Calcium (Ca)	2.0	-	203.8	105.2	55.5	394.0
Total Chromium (Cr)	0.010	3.20	0.047	0.038	<0.01	0.113
Total Cobalt (Co)	0.0013	-	0.0598	0.0352	0.0086	0.1230
Total Copper (Cu)	0.010	292	0.868	0.225	0.423	1.120
Total Iron (Fe)	0.25	-	31.14	11.12	19.70	53.90
Total Lead (Pb)	0.0010	11.6	0.0234	0.0096	<0.015	0.0383
Total Magnesium (Mg)	0.40	-	343.13	54.32	258.00	406.00
Total Manganese (Mn)	0.010	392	1.177	1.315	0.275	4.130
Total Mercury (Hg)*	0.0020	0.50	0.1148	0.1383	0.0412	0.4550
Total Molybdenum (Mo)	0.0040	16.1	0.0146	0.0054	0.0042	0.0209
Total Nickel (Ni)	0.010	3.5	0.041	0.048	0.010	0.156
Total Phosphorus (P)	2.0	-	5135.0	1405.6	2530.0	6260.0
Total Potassium (K)	2.0	-	5576.3	1724.4	2470.0	7280.0
Total Selenium (Se)	0.010	3.60	1.141	0.444	0.482	1.680
Total Silver (Ag)	0.0010	16.10	<0.001	0.0002	<0.001	<0.0013
Total Sodium (Na)	2.0	-	843.1	192.1	620.0	1200.0
Total Strontium (Sr)	0.010	1,930	0.110	0.067	0.050	0.245
Total Thallium (Tl)	0.00040	-	0.00983	0.00282	0.00492	0.01320
Total Tin (Sn)	0.020	-	0.021	0.002	<0.02	0.026
Total Titanium (Ti)	0.020	-	0.433	0.223	0.146	0.800
Total Uranium (U)	0.00040	1.90	0.0004	0.0001	<0.0004	0.0006
Total Vanadium (V)	0.020	-	<0.02	0.000	<0.02	0.020
Total Zinc (Zn)	0.040	963	149.150	101.678	20.400	232.000

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: SD = standard deviation, n = sample size, Min =minimum, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.

Table 3.14: Muscle tissue mercury concentration of Walleye sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012 (n = 15)		2015 (n = 1)		2016 (n = 15)		2017 (n = 15)		2018 (n = 15)		2020 (n = 15)	
		Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]
Arsenic (As)	1.00	0.1000	0.1000	0.1022	0.1022	0.0374	0.0700	0.0457	0.0915	0.0420	0.0670	0.0594	0.1620
Boron (B)	56.20	<0.50	0.50	<0.21	<0.21	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	3.20	<0.0010	0.0100	<0.0010	0.0010	0.0011	0.0023	0.0010	0.0017	0.0010	0.0010	0.0010	0.0011
Chromium (Cr)	3.20	<0.300	0.300	<0.010	0.010	0.014	0.045	0.010	0.012	0.011	0.027	0.012	0.034
Cobalt (Co)	-	<0.005	0.0050	<0.0042	0.0042	0.0042	0.0045	<0.0040	0.0040	0.0040	0.0040	0.0014	0.0020
Copper (Cu)	292	0.540	1.100	0.146	0.146	0.134	0.162	0.121	0.160	0.139	0.228	0.105	0.113
Iron (Fe)	-	3.20	5.00	2.15	2.15	1.02	1.91	1.60	2.51	1.84	4.24	1.60	3.17
Lead (Pb)	11.6	<0.0300	0.0300	0.0067	0.0067	0.0047	0.0113	0.0052	0.0079	0.0069	0.0415	0.0040	0.0040
Manganese (Mn)	392	0.307	1.800	0.163	0.163	0.089	0.112	0.127	0.222	0.139	0.204	0.110	0.156
Mercury (Hg)*	0.50	0.567 (4)	0.400	0.299	0.299	0.346	0.484	0.393	1.210 (3)	0.337	0.674 (2)	0.480	1.880 (4)
Molybdenum (Mo)	16.1	<0.050	0.0500	<0.0042	0.0042	0.0045	0.0090	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Nickel (Ni)	3.5	<0.050	0.050	<0.042	<0.042	0.051	0.065	0.071	0.495	<0.040	0.040	0.022	0.153
Selenium (Se)	3.60	0.213	0.300	0.295	0.295	0.206	0.275	0.222	0.301	0.219	0.304	0.221	0.267
Zinc (Zn)	963	3.53	5.00	3.16	3.16	2.80	3.36	2.60	3.19	3.20	3.65	2.88	3.07

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] Number of individual fish in exceedance of benchmark value in parentheses.

Table 3.15: Liver tissue mercury concentration of Walleye sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012 (n = 13)		2015 (n = 1)		2016 (n = 15)		2017 (n = 15)		2018 (n = 15)		2020 (n = 15)	
		Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]	Mean	Max [c]
Arsenic (As)	1.00	<0.1000	0.1000	0.0603	0.0603	0.0693	0.1169	0.0475	0.0880	0.0758	0.1562	0.0564	0.1140
Boron (B)	56.20	0.50	0.50	<0.20	<0.20	<0.20	0.30	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Cadmium (Cd)	3.20	0.1123	0.2000	0.5810	0.5810	0.1034	0.4386	0.4013	2.2700	0.1403	0.3290	0.2274	0.5550
Chromium (Cr)	3.20	<0.300	0.300	<0.040	<0.040	0.027	0.061	0.027	0.065	0.013	0.058	0.011	0.014
Cobalt (Co)	-	0.1342	0.3000	0.2340	0.2340	0.1277	0.3418	0.2030	0.3750	0.1590	0.3333	0.1864	0.4110
Copper (Cu)	292	1.985	3.000	3.120	3.120	1.976	7.968	1.665	2.350	1.772	2.818	2.240	13.000
Iron (Fe)	-	84.00	130.00	120.00	120.00	69.93	136.53	93.30	242.00	118.47	190.49	138.22	213.00
Lead (Pb)	11.6	0.0300	0.0300	<0.0100	<0.0100	0.0079	0.0152	0.0075	0.0121	<0.0040	0.0040	0.0054	0.0164
Manganese (Mn)	392	1.946	2.500	4.220	4.220	1.494	2.773	1.689	2.720	1.593	2.440	1.283	2.090
Mercury (Hg)	0.50	0.326	1.100 (4)	0.128	0.128	0.091	0.163	0.194	0.842 (1)	0.138	0.254	0.226	1.440 (1)
Molybdenum (Mo)	16.1	0.1392	0.2100	0.1320	0.1320	0.1211	0.1782	0.1426	0.2060	0.1614	0.2352	0.1298	0.1870
Nickel (Ni)	3.5	<0.05	0.050	<0.040	0.040	0.049	0.061	0.043	0.073	<0.040	0.040	0.023	0.100
Selenium (Se)	3.60	0.792	1.100	1.130	1.130	0.682	0.870	0.840	1.080	0.824	1.236	0.928	1.200
Zinc (Zn)	963	19.23	22.00	45.60	45.60	15.93	19.00	18.09	21.40	19.13	25.45	18.81	26.50

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] Number of individual fish in exceedance of benchmark value in parentheses.

Table 3.16: Ovary tissue mercury concentration of Walleye sampled in the Pinewood River, Baseline (2012) to present (2020).

COPC	Benchmark [a,b]	Baseline 2012[c]		2016 (n = 8)		2015[d]		2017 (n = 3)		2018 (n = 6)		2020 (n = 8)	
		Mean	Max [e]	Mean	Max [e]	Mean	Max [e]	Mean	Max [e]	Mean	Max [e]	Mean	Max [e]
Arsenic (As)	1.00	-	-	0.0432	0.0546	-	-	0.0137	0.0201	0.0332	0.0521	0.0383	0.0625
Boron (B)	56.20	-	-	0.30	0.32	-	-	<0.20	<0.20	0.27	0.60	0.42	1.95
Cadmium (Cd)	3.20	-	-	0.0020	0.0045	-	-	0.0038	0.0071	0.0022	0.0040	0.0061	0.0119
Chromium (Cr)	3.20	-	-	0.015	0.016	-	-	<0.010	<0.010	0.018	0.057	0.047	0.113
Cobalt (Co)	-	-	-	0.0596	0.0748	-	-	0.0369	0.0416	0.0564	0.0696	0.0598	0.1230
Copper (Cu)	292	-	-	0.717	0.832	-	-	0.692	0.780	0.871	1.072	0.868	1.120
Iron (Fe)	-	-	-	24.50	31.02	-	-	25.57	33.30	27.48	39.72	31.14	53.90
Lead (Pb)	11.6	-	-	0.0060	0.0065	-	-	0.0040	0.0040	0.0054	0.0126	0.0234	0.0383
Manganese (Mn)	392	-	-	4.198	7.052	-	-	1.843	2.060	3.733	8.140	1.177	4.130
Mercury (Hg)	0.50	-	-	0.025	0.031	-	-	0.098	0.176	0.037	0.055	0.115	0.455
Molybdenum (Mo)	16.1	-	-	0.0125	0.0158	-	-	0.0087	0.0103	0.0182	0.0289	0.0146	0.0209
Nickel (Ni)	3.5	-	-	0.060	0.065	-	-	<0.040	<0.040	0.044	0.067	0.041	0.156
Selenium (Se)	3.60	-	-	0.830	0.956	-	-	0.484	0.550	0.954	1.905	1.141	1.680
Zinc (Zn)	963	-	-	30.52	35.33	-	-	26.87	31.40	57.60	162.94	149.15	232.00

Notes:
Shaded cell indicates values higher than the benchmark value.
Abbreviations: n = sample size, Max = maximum.
Summary statistics considered less than MDL if reported as <MDL.
Units (mg/kg w.w.).
[a] Mercury guideline for women of child-bearing age and children under 15 (based on Table 2.1; MECP 2015).
[b] Consumption Benchmark References based on Table 2.2.
[c] No ovaries were sampled during baseline (2012).
[d] No females were captured in 2015.
[e] Number of individual fish in exceedance of benchmark value in parentheses.

3.4.2 Mercury Comparison of Current Year (2020) to Baseline (2012)

The Walleye data was Log10 transformed to best meet the assumptions of ANCOVA (i.e., normality of residuals and variance heterogeneity). For both muscle and liver tissue the range of fork length overlap between the 2012 and 2020 datasets was 285 to 655 mm. As such, this resulted in 9 fish from 2012 and 15 fish from 2020 to be included in the ANCOVA procedure for muscle tissue and 10 fish from 2012 and 15 fish from 2020 for liver tissue. Scatterplots demonstrated that there is a lack of data within the fork length range of 500 to 630 mm; however, this was consistent between datasets and ultimately was deemed acceptable for analysis by ANCOVA (**Figure 3.3**).

There was no statistical difference in Walleye mercury mean muscle tissue concentrations between the current year of study (2020) and baseline (2012; **Table 3.17**).

Similarly, mean liver tissue mercury concentration of Walleye sampled in the current year of sampling (2020) was not found to be statistically different from Walleye sampled during the baseline year (2012; **Table 3.17**).

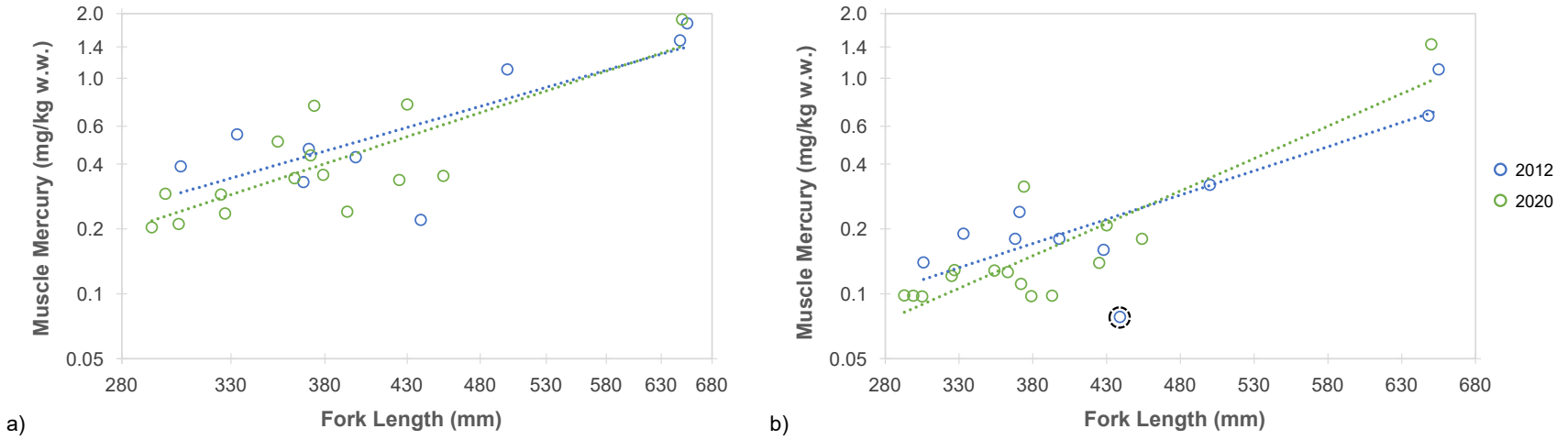


Figure 3.3: Scatter plots of Walleye mercury concentration in tissue, a) muscle and b) liver, versus fork length sampled in the Pinewood River during baseline (2012) and the current sampling program year (2020).

Note: Only range of fork length overlap between years is plotted (285 to 655 mm). Linear regression line displayed if significant ($P < 0.1$). Dashed circle identifies studentized outlier (PIN-18-GN1-1-L). Axes are Log_{10} scaled.

Table 3.17: Statistical differences between Walleye sampled within the Pinewood River during baseline (2012) and the current sampling program year (2020).

Variables		Sample Size		Test	ANCOVA Statistics		Response Mean			Test *P*-value (Year)	Magnitude of Difference (%)[a]
Response	Covariate	2012[b]	2020		Interaction Model: Interaction *P*-value	Covariate Value for Comparisons	Statistic	2012	2020		Relative to Baseline (2012)
Log_{10} Muscle Mercury (mg/kg w.w.)	Log_{10} Fork Length (mm)	9	15	ANCOVA	0.705	395	Adjusted Mean (Geometric)	0.491	0.437	0.512	-11.2
Log_{10} Muscle Mercury (mg/kg w.w.)	Log_{10} Fork Length (mm)	8	15	ANCOVA[1]	0.686	394	Adjusted Mean (Geometric)	0.552	0.433	0.121	-21.8
Log_{10} Liver Mercury (mg/kg w.w.)	Log_{10} Fork Length (mm)	10	15	ANCOVA	0.521	396	Adjusted Mean (Geometric)	0.193	0.177	0.656	-8.3

Notes:
Shaded cell indicates P-value < 0.10
Mean and covariate values have been back transformed for ease of interpretation.
Statistics were conducted using data within range of fork length overlap between years (285 to 655 mm).
[a] Magnitude of difference is calculated on based on the transformed data used to determine statistical significance.
[b] Sample size differed between muscle and liver tissue in 2012 as some fish did not have both muscle and liver tissue data.
[1] A studentized outlier was identified and removed from the dataset (WA10).

3.4.3 Long-term Mercury Trend Analysis

The Walleye data was Log_{10} transformed to best meet the assumptions of the linear model (i.e., normality of residuals and variance heterogeneity) that was used to derive the least squared mean of mercury concentration per tissue type for each year. As stated in **Section 2.4.3**, the fact that mercury bioaccumulates requires that analysis of trends be standardized to a common body length among datasets. The common range of fork length overlap among sampling years was 320 to 520 mm for all three tissue types.

Similar to Northern Pike, mercury concentrations in Walleye fish tissue was greatest during the baseline sampling year (2012) and declined until 2017, after which concentrations have increased (**Figure 3.4**). The same cyclic pattern demonstrated with Northern Pike was also evident with Walleye. Again, tissues fluctuated synchronously through time, with muscle, liver and ovaries having highest, intermediate and lowest concentrations, respectively (**Figure 3.4**).

Mann-Kendall trend analysis did not result in a significant increasing trend for any tissue type since the baseline study (**Table 3.18**).

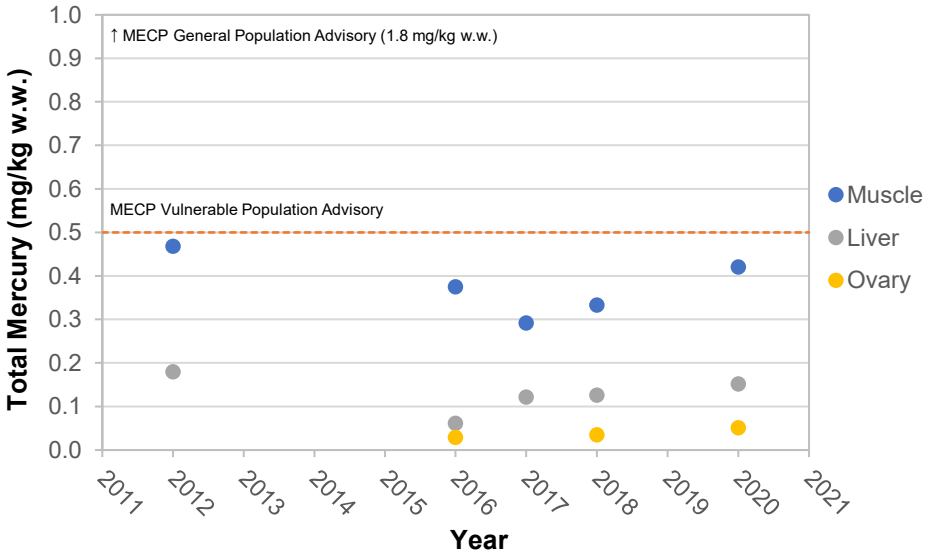


Figure 3.4: Scatter plot of least squared mean mercury tissue concentrations in Walleye sampled in the Pinewood River between baseline (2012) and the current sampling program (2020).

Note: Least squared means were calculated using the range of fork length overlap between years; Muscle, Liver and ovary - 320 to 520 mm. Only one male fish was captured in 2015 which is not sufficient for least squared mean calculations. Ovaries were not sampled during the baseline (2012) year and fork length overlap requirement resulted in a single female fish in 2017 which is not sufficient for least squared mean calculations.

Table 3.18: Statistical results of Mann-Kendall trend analyses of least squared mean mercury tissue concentrations in Walleye sampled in the Pinewood River between baseline (2012) and the current sampling program (2020).

Tissue	MK-statistic	Standard Error	z-statistic	p-value	Trend
Muscle	-2	4.082	-0.245	0.403	No
Liver	2	4.082	0.245	0.403	No
Ovary	3	1.915	1.044	0.148	No

Notes:
Trend analysis for upward trend only (one-tail test).
Shaded cell indicates *P*-value < 0.10
Statistics conducted on data presented in Figure 3.4.

4.0 Conclusions and Recommendations

4.1 Conclusions

Overall, the data indicates that the RRM has not significantly impacted the metal tissue concentrations for Northern Pike or Walleye within the Pinewood River. A summary table of the overall findings is presented in **Table 4.1**.

Table 4.1: Summary Results from the Pinewood River large-bodied fish tissue monitoring program, 2020.

Species	Tissue Type	Exceedance of Consumption Guideline in 2020?				Mercury Greater than Baseline ?	Increasing Mercury Trend?
		Mercury [a]		Other			
		Mean	Individual Fish	Mean	Individual Fish		
Northern Pike	Muscle	No	4 of 15 fish	No	No	No	No
	Liver	No	2 of 15 fish	No	(Se) 2 of 15	Yes	No
	Ovary	No	No	No	No	- [1]	No
Walleye	Muscle	No	4 of 15 fish	No	No	No	No
	Liver	No	1 of 15 fish	No	No	No	No
	Ovary	No	No	No	No	- [1]	No

Notes:
[a] This was based on the 'no-eat' Vulnerable Population Advisory of 0.5 mg/kg w.w., No fish exceeded the General Population Advisory of 1.8 mg/kg w.w.
[1] Ovaries were not collected during baseline monitoring (2012).

4.1.1 Comparison to Consumption Benchmarks (All Metals)

Some fish exceeded the mercury consumption advisory for vulnerable populations (0.5 mg/kg w.w.); however, this also occurred during baseline sampling. While the vulnerable population advisory was chosen as the benchmark for comparison it is important to note that it is approximately three times lower than the same advisory for the general population (1.8 mg/kg w.w.) which no fish exceeded. Other than mercury (which typically is a concern in boreal environments due to wide spread atmospheric deposition), the only other metal to exceed a benchmark was selenium, which only occurred in liver tissue of two Northern Pike. None of the metals had a mean value that exceeded the selected benchmarks identified in **Table 4.1**.

4.1.2 Mercury Comparison of Current Year (2020) to Baseline (2012)

Statistical comparisons of the current sampling program (2020) to baseline did not indicate differences concerning mercury concentrations within muscle tissue of Northern Pike or

Walleye (**Table 4.1**). Mean mercury concentration of liver tissue between the current study (2020) and baseline (2012) was not statistically different for Walleye but was for Northern Pike. This difference may be part of the natural oscillation of mercury concentrations in fish tissue in the Pinewood River and it appears that the baseline year (2012) and the current sampling year (2020) are indicative of high temporal events of this oscillation; however, continued monitoring is necessary to determine future trends.

4.1.3 Long-term Mercury Trend Analysis

Mercury concentration within tissue (muscle, liver, ovary) did not demonstrate a significant increasing trend for Northern Pike or Walleye (**Table 4.1**).

4.2 Recommendations

Based on the results and understanding attained from the analysis of the 2020 Large-Bodied Fish Monitoring Program the following recommendations are provided:

1. Continued monitoring of muscle, liver, and ovary tissues for Northern Pike and Walleye. Currently, the monitoring program has been conducted over 9 years with sampling occurring during 6 of these years. The dataset is approaching the robustness needed to conduct a technical assessment of monitoring performance regarding temporal frequency and sample size requirements.

2. Continue to foster community engagement in monitoring activities.

5.0 References

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Appendix A Fish Catch and Meristic Data

Table A-1: Fish meristic and sampling data for Northern Pike caught in Pinewood River in September 2020.

Species	Date Sampled	Station ID	Fish ID	Fork Length	Total Length	Body Weight	Left Tissue Weight	Right Tissue Weight	Liver Weight	Gonad Weight	Sex [a]	Maturity [b]	Aging Structures	Abnormalities
				mm	mm	kg	g	g	g	g				
Northern Pike	09-Sep-20	PineR-GN2	NP1	509	544	0.89	39.890	42.199	7.372	10.144	M	M	Sc, Cl	-
	10-Sep-20	PineR-AN1	NP2	537	566	1.33	35.049	46.693	19.400	11.561	F	M	Sc, Cl	Slight black spot
	10-Sep-20	PineR-AN1	NP3	511	546	0.83	39.850	37.805	4.235	34.024	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP4	431	461	0.53	34.680	24.781	3.515	7.671	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP5	534	566	0.88	47.747	37.864	7.078	12.350	F	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP6	429	460	0.58	28.616	26.520	4.210	13.349	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP7	455	486	0.69	34.410	43.520	4.815	19.398	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP8	465	491	0.65	35.677	34.159	4.590	9.485	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP9	470	502	0.71	38.791	38.170	7.252	8.899	F	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP10	449	478	0.58	28.408	30.642	2.236	9.980	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP11	562	598	1.00	33.271	48.282	9.181	13.464	F	M	Sc, Cl	-
	10-Sep-20	PineR-GN1	NP12	459	496	0.61	29.673	28.658	4.657	2.226	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN6	NP13	589	622	1.33	58.216	43.732	24.479	9.474	F	M	Sc, Cl	-
	10-Sep-20	PineR-GN6	NP14	477	500	0.76	45.037	31.880	8.721	21.853	M	M	Sc, Cl	-
	10-Sep-20	PineR-GN6	NP15	510	542	0.75	33.249	23.256	5.036	7.260	M	M	Sc, Cl	-
			Sample Size	15	15	15	15	15	15	15				
			Mean	492	524	0.81	37.504	35.877	7.785	12.743				
			Standard Deviation	48	50	0.25	7.971	8.072	6.142	7.557				
			Standard Error	12	13	0.06	2.058	2.084	1.586	1.951				
			Minimum	429	460	0.53	28.408	23.256	2.236	2.226				
			Maximum	589	622	1.33	58.216	48.282	24.479	34.024				

Abbreviations: Sc = Scales, Cl = Cleithrum

[a] Sex: M = Male, F = Female

[b] Maturity: IM = Immature, M = Mature

Table A-2: Fish meristic and sampling data for Walleye caught in Pinewood River in September 2020.

Species	Date Sampled	Station ID	Fish ID	Fork Length	Total Length	Body Weight	Left Tissue Weight	Right Tissue Weight	Liver Weight	Gonad Weight	Sex [a]	Maturity [b]	Aging Structures	Abnormalities
				mm	mm	kg	g	g	g	g				
Walleye	11-Sep-20	PineR-AN2	WA1	430	463	0.84	58.052	42.140	9.922	15.225	M	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN4	WA2	363	389	0.48	28.010	27.647	4.591	0.692	F	IM	Sc, Dr, Oto	1 cyst in liver
	10-Sep-20	PineR-GN7	WA3	454	486	1.22	75.216	55.440	14.091	8.200	M	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN7	WA4	325	346	0.38	26.108	26.789	4.684	2.122	M	IM	Sc, Dr, Oto	1 cyst in liver
	10-Sep-20	PineR-GN7	WA5	299	322	0.31	9.393	9.398	4.541	0.783	F	IM	Sc, Dr, Oto	Slight black spot
	09-Sep-20	PineR-GN2	WA6	650	684	3.13	116.551	12.357	54.866	87.288	F	M	Sc, Dr, Oto	-
	09-Sep-20	PineR-GN2	WA7	327	350	0.37	21.944	21.793	3.271	0.442	F	IM	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN1	WA8	354	378	0.49	28.660	20.381	6.575	5.050	M	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN1	WA9	372	397	0.58	40.038	24.539	6.558	3.410	-	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN1	WA10	393	422	0.65	40.425	33.291	10.098	9.448	M	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN6	WA11	379	406	0.65	36.246	28.436	8.359	1.360	F	IM	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN6	WA12	374	401	0.57	34.146	29.463	5.368	15.885	M	M	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN6	WA13	305	325	0.32	21.056	20.628	3.364	0.708	F	IM	Sc, Dr, Oto	-
	10-Sep-20	PineR-GN6	WA14	293	318	0.32	24.255	17.058	3.743	0.100	M	IM	Sc, Dr, Oto	-
	09-Sep-20	PineR-GN3	WA15	425	451	0.79	50.460	45.530	10.215	12.606	F	M	Sc, Dr, Oto	-
			Sample Size	15	15	15.00	15	15	15	15				
			Mean	383	409	0.74	40.704	27.659	10.016	10.888				
			Standard Deviation	88	92	0.71	26.608	12.432	12.799	21.853				
			Standard Error	23	24	0.18	6.870	3.210	3.305	5.642				
			Minimum	293	318	0.31	9.393	9.398	3.271	0.100				
			Maximum	650	684	3.13	116.551	55.440	54.866	87.288				

Abbreviations: Sc = Scales, Dr = Dorsal Rays, Oto = Otoliths

[a] Sex: M = Male, F = Female

[b] Maturity: IM = Immature, M = Mature

Table A-3: Fish catch summary at all sampling stations in Pinewood River in September 2020.

Station ID	Date	Gear	Net Length (ft)	Mesh size (inch)	Species	Catch	Set Time	Left Time	Fishing Duration (hh:mm)
PinR-GN1	09-Sep-20	Gill net	100	3	Northern Pike	9	16:20	9:40	17:20
PinR-GN1	09-Sep-20	Gill net	100	3	Walleye	3	16:20	9:40	17:20
PinR-GN1	09-Sep-20	Gill net	100	3	Sauger	2	16:20	9:40	17:20
PinR-GN1	09-Sep-20	Gill net	100	3	Brown Bullhead	1	16:20	9:40	17:20
PinR-GN1	09-Sep-20	Gill net	100	3	Longnose Sucker	1	16:20	9:40	17:20
PinR-GN2	11-Sep-20	Gill net	150	3 to 5	Northern Pike	1	16:40	10:00	17:20
PinR-GN2	11-Sep-20	Gill net	150	3 to 5	Walleye	2	16:40	10:00	17:20
PinR-GN2	11-Sep-20	Gill net	150	3 to 5	White Sucker	6	16:40	10:00	17:20
PinR-GN2	11-Sep-20	Gill net	150	3 to 5	Sauger	1	16:40	10:00	17:20
PinR-GN3	11-Sep-20	Gill net	150	3 to 5	Northern Pike	2	17:00	10:25	17:25
PinR-GN3	11-Sep-20	Gill net	150	3 to 5	Walleye	1	17:00	10:25	17:25
PinR-GN3	11-Sep-20	Gill net	150	3 to 5	Brown Bullhead	1	17:00	10:25	17:25
PinR-GN3	11-Sep-20	Gill net	150	3 to 5	White Sucker	5	17:00	10:25	17:25
PinR-GN4	10-Sep-20	Gill net	150	3 to 5	Northern Pike	4	12:35	11:45	23:10
PinR-GN4	10-Sep-20	Gill net	150	3 to 5	Walleye	1	12:35	11:45	23:10
PinR-GN4	10-Sep-20	Gill net	150	3 to 5	Rock Bass	1	12:35	11:45	23:10
PinR-GN4	10-Sep-20	Gill net	150	3 to 5	Sauger	1	12:35	11:45	23:10
PinR-GN5	09-Sep-20	Gill net	100	3	Northern Pike	3	12:45	16:00	15:15
PinR-GN5	09-Sep-20	Gill net	100	3	White Sucker	1	12:45	16:00	15:15
PinR-GN6	10-Sep-20	Gill net	150	3	Northern Pike	11	15:40	11:10	18:30
PinR-GN6	10-Sep-20	Gill net	150	3	Walleye	4	15:40	11:10	18:30
PinR-GN6	10-Sep-20	Gill net	150	3	White Sucker	3	15:40	11:10	18:30
PinR-GN6	10-Sep-20	Gill net	150	3	Sauger	1	15:40	11:10	18:30
PinR-GN6	10-Sep-20	Gill net	150	3	Brown Bullhead	2	15:40	11:10	18:30
PinR-GN6	10-Sep-20	Gill net	150	3	Shorthead Redhorse	1	15:40	11:10	18:30
PinR-GN7	10-Sep-20	Gill net	100	3 to 5	Northern Pike	2	16:30	12:15	19:45
PinR-GN7	10-Sep-20	Gill net	100	3 to 5	Sauger	2	16:30	12:15	19:45
PinR-GN7	10-Sep-20	Gill net	100	3 to 5	White Sucker	3	16:30	12:15	19:45
PinR-GN7	10-Sep-20	Gill net	100	3 to 5	Walleye	3	16:30	12:15	19:45
PinR-AN1	10-Sep-20	Angling	-	-	Northern Pike	2	13:00	15:15	4:30
PinR-AN2	11-Sep-20	Angling	-	-	Walleye	1	13:00	15:15	4:30

Table A-4: Fish sampling locations on the Pinewood River in September 2020.

Location	Latitude (Decimal Degrees)	Longitude (Decimal Degrees)	Elevation (masl)
PINER AN 1	48.7286	-94.2852	311.7
PINER AN2	48.7251	-94.2939	291.6
PINER GN1	48.7261	-94.2887	274.5
PINER GN2	48.7256	-94.2907	287.8
PINER GN3	48.7252	-94.2921	297.7
PINER GN4	48.7265	-94.2877	306.8
PINER GN5	48.7284	-94.2832	310.1
PINER GN6	48.7278	-94.2816	320.7
PINER GN7	48.7246	-94.2971	317.2

Appendix B Fish Tissue Data

Table B-1: Wet weight metal concentrations of Northern Pike muscle tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
				PineR-GN2	PineR-AN1	PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1
				NP1	NP2	NP3	NP4	NP5	NP6	NP7	NP8	NP8
				NP-1 L.TISSUE	NP-2 L.TISSUE	NP-3 L.TISSUE	NP-4 L.TISSUE	NP-5 L.TISSUE	NP-6 L.TISSUE	NP-7 L.TISSUE	NP-8 L.TISSUE	NP-8 L.T Lab-Dup
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	0.32	0.21	0.27	0.93	0.50	2.22	2.72	1.33 (3)	0.62 (4)
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0675	0.115	0.0863	0.119	0.0456	0.0672	0.107	0.102	0.104
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.100	0.036	0.082	0.098	0.039	0.091	0.041	0.119 (3)	0.232 (4)
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0034	0.0024	0.0031	0.0027	0.0021	0.0021	0.0030	0.0034	0.0034
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	<0.0010	0.0014	0.0019	0.0012	0.0013	0.0010	0.0014	0.0015	0.0012
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	1050	597	596	541	410	951	390	864	1610
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	<0.010	<0.010	0.011	<0.010	<0.010	<0.010	<0.010	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0030	0.0023	0.0035	0.0038	0.0034	0.0036	0.0030	0.0035	0.0034
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	0.090	0.097	0.098	0.120	0.101	0.112	0.122	0.116	0.095
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	1.78	1.26	1.80	2.68	2.15	2.38	2.32	2.53	2.44
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	336	317	318	300	279	324	306	308	337
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.801	0.380	0.680	0.492	0.403	0.999	0.403	0.919 (3)	1.87 (4)
Total (Wet Wt) Mercury (Hg)[1]	0.50	0.0040	mg/kg	0.490	0.428	0.609	0.287	0.564	0.275	0.366	0.550	0.548
Total (Wet Wt) Mercury (Hg) - CVAFS[2]	0.50	0.01	mg/kg	0.490	0.428	0.609	0.287	0.564	0.275	0.366	0.550	-
Total (Dry Wt) Mercury (Hg) - CVAFS[2]	-	0.01	mg/kg	2.170	2.140	3.030	1.440	3.220	1.360	1.860	2.790	-
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2860	2720	2450	2490	2330	2710	2480	2520	3040
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	4110	4280	3820	4070	3840	3920	4220	3820	3970
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.187	0.194	0.182	0.203	0.166	0.166	0.182	0.180	0.178
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	373	466	439	247	347	440	244	266	280
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.530	0.253	0.295	0.252	0.178	0.539	0.198	0.503 (3)	0.986 (4)
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00203	0.00271	0.00177	0.00214	0.00180	0.00223	0.00334	0.00180	0.00198
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.202	0.194	0.177	0.190	0.155	0.189	0.189	0.170	0.228
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00047	0.00042	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	4.64	4.52	4.35	4.82	4.31	4.44	5.79	4.37	4.36
Moisture-Subcontracted	-	0.25	%	81	81	82	80	81	80	80	82	82
Moisture (CVAFS)[2]	-	0.50	%	77	80	80	80	83	80	80		80

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate, ICP-MS = inductively coupled plama-mass-spectrometry, CVAFS = cold vapour atomic fluorescence sprectroscopy, L.Tissue = Left Tissue (of muscle)

[1] Muscle tissues wet weight values obtained from Bureau Veritas Laboratory using inductively coupled plama-mass-spectrometry (ICP-MS), similar to most other metals analyzed.

[2] Muscle tissues dry weight values obtained from ALS using cold vapour atomic fluorescence sprectroscopy (CVAFS). Moisture values were used to convert dry weight concentrations to wet weight concentrations using the formula: (dry wt/100)*(100-moisture).

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-1: Wet weight metal concentrations of Northern Pike muscle tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
				PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6
				NP9	NP10	NP11	NP12	NP13	NP14	NP15
				NP-9 L.TISSUE	NP-10 L.TISSUE	NP-11 L.TISSUE	NP-12 L.TISSUE	NP-13 L.TISSUE	NP-14 L.TISSUE	NP-15 L.TISSUE
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	1.39	1.44	0.40	1.27	0.24	0.35	0.79
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0820	0.0789	0.0728	0.0482	0.0598	0.132	0.0416
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.089	0.048	0.125	0.039	<0.010	0.059	0.082
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0028	0.0033	0.0032	0.0031	0.0030	0.0032	0.0019
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	<0.0010	0.0014
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	718	563	1390	472	162	568	797
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	0.114	<0.010	<0.010	<0.010	<0.010	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0044	0.0038	0.0028	0.0031	<0.0013	0.0027	0.0023
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	0.096	0.108	0.103	0.104	0.097	0.102	0.098
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	2.59	3.57	1.44	2.76	1.05	1.36	1.35
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	302	314	338	317	310	302	291
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.706	0.561	1.11	0.524	0.126	0.913	0.874
Total (Wet Wt) Mercury (Hg)[1]	0.50	0.0040	mg/kg	0.349	0.366	0.614	0.406	0.378	0.440	0.493
Total (Wet Wt) Mercury (Hg) - CVAFS[2]	0.50	0.01	mg/kg	0.349	0.366	0.614	0.406	0.378	0.440	0.493
Total (Dry Wt) Mercury (Hg) - CVAFS[2]	-	0.01	mg/kg	1.700	1.760	3.010	1.960	1.790	2.190	2.440
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	<0.0040	0.0052	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2580	2520	3010	2390	2370	2510	2520
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	3990	4040	4130	3920	4140	4000	3740
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.171	0.227	0.157	0.173	0.190	0.170	0.146
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	282	231	363	441	393	255	414
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.419	0.231	0.705	0.215	0.035	0.313	0.389
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00268	0.00274	0.00230	0.00192	0.00230	0.00230	0.00217
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.234	0.212	0.220	0.190	0.161	0.164	0.182
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00047	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	5.70	4.34	3.75	4.40	3.90	3.33	3.81
Moisture-Subcontracted	-	0.25	%	79	81	81	82	78	82	81
Moisture (CVAFS)[2]	-	0.50	%	80	79	80	79	79	80	80

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate, ICP-MS = inductively coupled plama-mass-spectrometry, CVAFS = cold vapour atomic fluorescence sprectroscopy, L.Tissue = Left Tissue (of muscle)

[1] Muscle tissues wet weight values obtained from Bureau Veritas Laboratory using inductively coupled plama-mass-spectrometry (ICP-MS), similar to most other metals analyzed.

[2] Muscle tissues dry weight values obtained from ALS using cold vapour atomic fluorescence sprectroscopy (CVAFS). Moisture values were used to convert dry weight concentrations to wet weight concentrations using the formula: (dry wt/100)*(100-moisture).

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-2: Wet weight metal concentrations of Northern Pike liver tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
				PineR-GN2	PineR-AN1	PineR-AN1	PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1
				NP1	NP2	NP2	NP3	NP4	NP5	NP6	NP7	NP8
				NP-1 LIVER	NP-2 LIVER	NP-2 Lab-Dup	NP-3 LIVER	NP-4 LIVER	NP-5 LIVER	NP-6 LIVER	NP-7 LIVER	NP-8 LIVER
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	2.12	0.82	0.82	6.76	1.47	3.82	1.16	2.30	2.44
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	0.0020	<0.0010	<0.0010	0.0066	0.0016	0.0019	0.0020	<0.0010	0.0033
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0466	0.0403	0.0409	0.0589	0.0783	0.0442	0.0506	0.0850	0.0625
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.013	<0.010	<0.010	0.020	0.018	0.018	0.015	0.028	0.018
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0079	0.0041	0.0043	0.0283	0.0062	0.0067	0.0044	0.0080	0.0103
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.135	0.133	0.136	0.400	0.173	0.328	0.173	0.205	0.356
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	50.9	32.7	34.2	43.6	86.8	67.9	120	57.3	70.5
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	0.011	<0.010	<0.010	0.016	0.010	0.013	0.010	0.014	0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0549	0.0274	0.0287	0.104	0.0722	0.0739	0.0582	0.0600	0.0917
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	37.8	11.4	11.6	69.8	47.5	24.6	33.8	43.7	53.2
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	278	103	113	130	576	98.8	286	255	533
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	0.0405 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	140	162	165	164	214	212	188	172	178
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.836	1.15	1.21	1.34	1.53	1.46	1.37	1.50	1.30
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.241	0.225	0.231	0.667	0.189	0.445	0.179	0.287	0.384
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.209	0.0929	0.0950	0.349	0.308	0.226	0.260	0.273	0.246
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.027	0.012	0.013	0.060	0.029	0.037	0.031	0.026	0.049
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2470	2640	2760	2990	3470	3450	3160	2930	2980
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	2540	3310	3400	3050	3000	2980	2420	2630	2760
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	2.87	1.89	2.03	3.78	3.79	2.07	2.66	2.53	3.18
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	0.189	0.0264	0.0270	0.234	0.111	0.0612	0.125	0.175	0.315
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	866	774	793	906	855	1060	835	838	925
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.034	0.018	0.018	0.035	0.060	0.044	0.065	0.058	0.069
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00367	0.00434	0.00448	0.00374	0.00470	0.00372	0.00388	0.00530	0.00346
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	0.021	<0.020	0.029	<0.020	0.026	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.121	0.126	0.148	0.178	0.197	0.196	0.168	0.181	0.136
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00051	0.00069	0.00070	0.00185	<0.00040	0.00187	<0.00040	<0.00040	0.00090
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	0.497	0.127	0.128	1.52	0.213	0.420	0.165	0.241	0.764
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	54.5	35.3	35.1	69.8	73.7	54.2	86.4	81.3	57.8
Moisture-Subcontracted	-	0.25	%	63	73	73	67	63	78	67	64	60

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-2: Wet weight metal concentrations of Northern Pike liver tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
				PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6
				NP9	NP10	NP11	NP12	NP13	NP14	NP15
				NP-9 LIVER	NP-10 LIVER	NP-11 LIVER	NP-12 LIVER	NP-13 LIVER	NP-14 LIVER	NP-15 LIVER
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	1.29	1.53	2.57	1.45	0.24	1.33	2.82
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	0.0012	0.0016	0.0019	0.0016	<0.0010	0.0013	0.0015
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0465	0.0566	0.0480	0.0358	0.0244	0.0843	0.0455
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.018	0.016	0.015	0.020	<0.010	0.017	0.017
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0052	0.0077	0.0103	0.0080	0.0048	0.0051	0.0113
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.121	0.198	0.217	0.0793	0.0304	0.102	0.322
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	60.5	69.0	83.5	153	44.4	64.9	72.7
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	0.014	0.020	<0.010	0.095	<0.010	0.012	0.028
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0808	0.0690	0.0658	0.0521	0.0153	0.0616	0.0981
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	29.8	46.4	34.5	31.2	10.3	24.7	49.1
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	212	202	55.6	130	20.5	397	176
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	0.0415 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	203	197	202	176	145	141	162
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	1.19	1.56	1.40	1.46	0.945	0.927	1.37
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.225	0.238	0.567	0.249	0.182	0.146	0.439
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.184	0.282	0.235	0.209	0.0845	0.180	0.269
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.028	0.034	0.033	0.025	<0.010	0.027	0.040
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	3520	3090	3640	2930	2310	2300	2780
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	3030	2760	3320	2460	2840	2150	2770
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	2.93	3.04	2.29	2.36	1.74	2.20	2.53
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	0.101	0.125	0.179	0.105	0.0168	0.0746	0.127
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	850	839	967	791	753	929	1180
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.045	0.044	0.055	0.073	0.022	0.045	0.056
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00345	0.00395	0.00530	0.00346	0.00247	0.00379	0.00395
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	<0.020	0.039	<0.020	0.022	0.027
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.183	0.176	0.178	0.176	0.119	0.095	0.174
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00080	0.00040	0.00313	0.00050	<0.00040	0.00091	0.00073
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	0.440	0.168	0.602	0.132	0.039	0.266	0.281
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	67.9	74.9	54.5	76.7	42.0	33.0	61.6
Moisture-Subcontracted	-	0.25	%	69	68	78	68	70	57	76

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-3: Wet weight metal concentrations of Northern Pike gonad tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
				PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6
				NP2	NP5	NP9	NP11	NP13
				NP-2- GONAD	NP-5- GONAD	NP-9 GONAD	NP-11 GONAD	NP-13 GONAD
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	0.45	3.88	1.54	0.70	0.26
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0348	0.0218	0.0366	0.0274	0.0276
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.023	0.028	0.025	0.024	0.016
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.0296	0.0188	0.0066	0.0167	0.0058
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	487	170	101	228	205
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	0.013	0.036	0.014	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0498	0.0642	0.0874	0.0737	0.0277
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	0.748	0.885	0.919	1.06	0.983
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	30.5	48.0	50.6	56.8	24.3
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	0.0328	0.0354	0.0334	0.0337	0.0318
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	205	221	227	214	211
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	12.0	35.6	22.0	41.1	16.8
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.0937	0.0849	0.0424	0.0824	0.0749
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.0140	0.0575	0.0544	0.0498	0.0212
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.012	0.015	0.015	0.014	0.014
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	3140	3110	3020	2970	2910
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	4060	4120	4090	3880	3810
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	1.10	0.797	0.829	0.911	0.858
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	895	624	639	815	775
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.220	0.072	0.047	0.108	0.086
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00489	0.00411	0.00389	0.00387	0.00435
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	0.021	<0.020	<0.020	0.021	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.162	0.280	0.182	0.150	0.140
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00047	0.00068	<0.00040	0.00052	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	0.020	0.061	0.067	0.058	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	87.2	85.8	66.6	57.7	72.9
Moisture-Subcontracted	-	0.25	%	82	83	84	83	81

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-4: Wet weight metal concentrations of Walleye muscle tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	11-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20
				PineR-AN2	PineR-GN4	PineR-GN7	PineR-GN7	PineR-GN7	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN1
				WA1	WA2	WA3	WA3	WA4	WA5	WA6	WA7	WA8
				WA-1 L.TISSUE	WA-2 L.TISSUE	WA-3 L.TISSUE	WA-3 Lab-Dup	WA-4 L.TISSUE	WA-5 L.TISSUE	WA-6 L.TISSUE	WA-7 L.TISSUE	WA-8 L.TISSUE
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	0.22	0.26	0.85	0.46	0.33	0.48	1.21	1.27	0.54
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0590	0.0656	0.0767	0.0739	0.0578	0.0475	0.118	0.0485	0.0419
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	<0.010	<0.010	0.04	0.054	<0.010	<0.010	0.014	0.012	0.012
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0028	0.0014	0.0038	0.0038	0.0013	0.0018	0.0054	0.0019	0.0026
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.0011	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	112	117	469	866	133	140	93.2	117	197
Total (Wet Wt) Cesium (Cs)	-	0.0010	mg/kg	0.0138	-	-	-	-	-	-	-	-
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	0.014	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0015	0.0014	<0.0013	<0.0013	0.0013	0.0013	<0.0013	0.0019	<0.0013
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	0.105	0.106	0.101	0.098	0.109	0.110	0.088	0.110	0.107
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	1.57	1.42	1.37	1.49	1.58	1.38	2.15	1.99	1.65
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Lithium (Li)	-	0.10	mg/kg	<0.10	-	-	-	-	-	-	-	-
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	326	297	289	289	304	321	306	308	316
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.107	0.090	0.081	0.095	0.130	0.132	0.076	0.127	0.122
Total (Wet Wt) Mercury (Hg)[1]	0.50	0.00	mg/kg	0.87	0.36	0.35	0.36	0.32	0.29	1.75	0.27	0.51
Total (Wet Wt) Mercury (Hg) - CVAFS[2]	0.50	0.01	mg/kg	0.76	0.34	0.35	-	0.29	0.29	1.88	0.24	0.51
Total (Dry Wt) Mercury (Hg) - CVAFS[2]	-	0.01	mg/kg	3.57	1.63	1.77	-	1.41	1.38	8.98	1.13	2.46
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	<0.010	<0.010	0.019	<0.010	<0.010	<0.010	<0.010	0.038	<0.010
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2530	2310	2370	2600	2360	2420	2440	2420	2340
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	4720	4380	4080	3980	4490	4670	4360	4550	4300
Total (Wet Wt) Rubidium (Rb)	-	0.010	mg/kg	10.7	-	-	-	-	-	-	-	-
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.256	0.239	0.153	0.154	0.243	0.204	0.227	0.222	0.225
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	234	379	275	273	280	230	306	279	464
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.016	0.015	0.200 (3)	0.396 (4)	0.018	0.025	0.023	0.017	0.042
Total (Wet Wt) Tellurium (Te)	-	0.0040	mg/kg	<0.0040	-	-	-	-	-	-	-	-
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00334	0.00364	0.00367	0.00370	0.00427	0.00371	0.00325	0.00336	0.00360
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.052	<0.020	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.168	0.166	0.157	0.169	0.155	0.169	0.187	0.202	0.178
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	2.64	2.92	2.94	3.04	3.06	3.07	2.76	2.96	3.02
Total (Wet Wt) Zirconium (Zr)	-	0.040	mg/kg	<0.040	-	-	-	-	-	-	-	-
Moisture (ICP-MS)	-	0.25	%	80	80	81	81	81	79	80	80	81
Moisture (CVAFS)[2]	-	0.50	%	79	79	80	-	80	79	79	79	79

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate, ICP-MS = inductively coupled plama-mass-spectrometry, CVAFS = cold vapour atomic fluorescence sprectroscopy, L. Tissue = left tissue (of muscle)

[1] Muscle tissues wet weight values obtained from Bureau Veritas Laboratory using inductively coupled plama-mass-spectrometry (ICP-MS). This method was used for all other metals analyzed unless noted otherwise.

[2] Muscle tissues dry weight values obtained from ALS Laboratory using cold vapour atomic fluorescence sprectroscopy (CVAFS). Moisture values were used to convert dry weight concentrations to wet weight concentrations using the formula: (dry wt/100)*(100-moisture).

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-4: Wet weight metal concentrations of Walleye muscle tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
				PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN3
				WA9	WA10	WA11	WA12	WA13	WA14	WA15
				WA-9 L.TISSUE	WA-10 L.TISSUE	WA-11 L.TISSUE	WA-12 L.TISSUE	WA-13 L.TISSUE	WA-14 L.TISSUE	WA-15 L.TISSUE
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	1.92	0.61	0.21	4.27	0.27	<0.20	0.23
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0425	0.0310	0.0280	0.162	0.0389	0.0385	0.0344
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.018	0.013	<0.010	0.016	<0.010	<0.010	0.017
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0021	<0.0010	0.0023	0.0024	0.0017	0.0018	0.0020
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	122	162	181	257	183	157	412
Total (Wet Wt) Cesium (Cs)	-	0.0010	mg/kg	-	-	-	-	-	-	-
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	0.010	<0.010	0.034	0.012	<0.010	<0.010	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0020	<0.0013	<0.0013	0.0016	<0.0013	<0.0013	<0.0013
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	0.103	0.103	0.106	0.113	0.095	0.105	0.113
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	3.17	1.44	1.41	1.62	1.06	0.82	1.40
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Lithium (Li)	-	0.10	mg/kg	-	-	-	-	-	-	-
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	311	324	301	323	284	280	311
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.156	0.099	0.097	0.098	0.107	0.106	0.120
Total (Wet Wt) Mercury (Hg)[1]	0.50	0.00	mg/kg	0.42	0.25	0.39	0.67	0.24	0.26	0.39
Total (Wet Wt) Mercury (Hg) - CVAFS[2]	0.50	0.01	mg/kg	0.44	0.24	0.36	0.75	0.21	0.20	0.34
Total (Dry Wt) Mercury (Hg) - CVAFS[2]	-	0.01	mg/kg	2.03	1.16	1.72	3.50	1.06	1.05	1.68
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	<0.010	<0.010	<0.010	0.153	0.014	<0.010	<0.010
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2400	2540	2360	2560	2220	2200	2530
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	4510	4570	4500	4470	4080	3930	4490
Total (Wet Wt) Rubidium (Rb)	-	0.010	mg/kg	-	-	-	-	-	-	-
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.238	0.192	0.207	0.267	0.219	0.212	0.204
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	435	348	393	345	378	399	295
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.020	0.037	0.042	0.084	0.041	0.032	0.131
Total (Wet Wt) Tellurium (Te)	-	0.0040	mg/kg	-	-	-	-	-	-	-
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00285	0.00423	0.00331	0.00430	0.00312	0.00369	0.00335
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.208	0.181	0.165	0.186	0.154	0.150	0.175
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	2.78	2.73	2.79	2.90	2.90	2.71	2.98
Total (Wet Wt) Zirconium (Zr)	-	0.040	mg/kg	-	-	-	-	-	-	-
Moisture (ICP-MS)	-	0.25	%	80	80	80	79	81	82	79
Moisture (CVAFS)[2]	-	0.50	%	78	79	79	79	80	81	80

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate, ICP-MS = inductively coupled plama-mass-spectrometry, CVAFS = cold vapour atomic fluorescence sprectroscopy, L. Tissue = left tissue (of muscle)

[1] Muscle tissues wet weight values obtained from Bureau Veritas Laboratory using inductively coupled plama-mass-spectrometry (ICP-MS). This method was used for all other metals analyzed unless noted otherwise.

[2] Muscle tissues dry weight values obtained from ALS Laboratory using cold vapour atomic fluorescence sprectroscopy (CVAFS). Moisture values were used to convert dry weight concentrations to wet weight concentrations using the formula: (dry wt/100)*(100-moisture).

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-5: Wet weight metal concentrations of Walleye liver tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	11-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20	10-Sep-20
				PineR-AN2	PineR-GN4	PineR-GN7	PineR-GN7	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN1	PineR-GN1
				WA1	WA2	WA3	WA4	WA5	WA6	WA7	WA8	WA9
				WA-1 LIVER	WA-2 LIVER	WA-3 LIVER	WA-4 LIVER	WA-5 LIVER	WA-6 LIVER	WA-7 LIVER	WA-8 LIVER	WA-9 LIVER
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	0.89	0.34	0.75	0.51	0.56	1.09	1.17	1.00	0.49
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0349	0.0954	0.0426	0.0338	0.114	0.0246	0.0663	0.0483	0.0313
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.010	0.033	0.022	0.013	0.024	0.013	0.016	<0.010	<0.010
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0018	0.0013	0.0046	0.0015	0.0017	0.0047	0.0019	0.0013	<0.0010
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.555	0.143	0.216	0.327	0.170	0.319	0.296	0.0882	0.0789
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	89.7	141	206	140	56.6	73.6	86.9	71.3	71.7
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	<0.010	<0.010	<0.010	0.012	<0.010	0.014	<0.010	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.332	0.170	0.399	0.232	0.0993	0.0633	0.201	0.114	0.122
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	1.53	1.83	13.0	1.51	1.40	0.886	1.84	1.15	1.21
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	213	171	122	132	118	37.9	172	124	156
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	0.0043 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	0.0164 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	149	168	172	189	167	189	195	176	153
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.825	1.51	1.09	1.61	1.27	1.41	1.55	0.867	0.968
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.208	0.126	0.180	0.121	0.098	1.440	0.129	0.128	0.111
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.106	0.175	0.119	0.136	0.132	0.0990	0.187	0.112	0.117
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.021	0.100	0.016	0.021	0.018	0.010	0.022	0.020	0.016
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2360	2940	2770	3080	2890	3070	3230	2770	2530
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	2570	2910	2700	2910	2840	2840	2780	3060	3060
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.993	0.893	0.998	1.05	0.804	1.03	0.934	0.798	0.791
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	0.0219	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	1500	1180	1300	1130	1070	1300	1210	966	1070
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.049	0.086	0.116	0.061	0.033	0.036	0.067	0.036	0.038
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.00717	0.0120	0.0108	0.0131	0.0121	0.00923	0.0126	0.00783	0.00757
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	0.021	0.021	0.023	<0.020	<0.020	0.030	0.025	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.159	0.213	0.193	0.231	0.209	0.205	0.257	0.197	0.172
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00045	<0.00040	0.00068	<0.00040	<0.00040	0.00131	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	0.058	0.022	0.042	<0.020	<0.020	0.035	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	16.4	20.2	26.5	19.2	18.9	18.2	22.2	15.7	16.3
Moisture-Subcontracted	-	0.25	%	75	78	75	76	86	76	76	71	78

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-5: Wet weight metal concentrations of Walleye liver tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
				PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN3
				WA10	WA11	WA12	WA13	WA14	WA15
				WA-10 LIVER	WA-11 LIVER	WA-12 LIVER	WA-13 LIVER	WA-14 LIVER	WA-15 LIVER
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	0.75	0.45	1.01	0.48	0.35	0.32
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0351	0.0559	0.0681	0.102	0.0366	0.0564
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.012	<0.010	0.015	0.017	0.012	0.011
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	<0.0010	0.0015	0.0023	0.0010	0.0013	0.0015
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.196	0.0902	0.531	0.108	0.119	0.173
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	126	75.4	117	111	110	131
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	<0.010	<0.010	<0.010	0.014	<0.010	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.185	0.132	0.411	0.184	0.0751	0.0758
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	1.59	1.44	1.82	1.43	1.30	1.66
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	76.4	185	165	138	114	149
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.0040 (1)	<0.0040 (1)	0.0058 (1)	0.0110 (1)	<0.0040 (1)	<0.0040 (1)
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	162	159	190	184	174	207
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	1.37	1.02	1.52	1.05	1.10	2.09
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.098	0.098	0.314	0.097	0.098	0.139
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.112	0.104	0.140	0.159	0.139	0.110
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.013	0.017	0.027	0.021	0.016	0.013
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	2780	2550	3060	2990	2750	3600
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	2850	2780	2930	2990	2680	3340
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	0.902	0.886	1.20	0.860	0.866	0.909
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	1220	1260	1370	1140	1060	1170
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.060	0.042	0.062	0.063	0.052	0.074
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.0169	0.00804	0.0108	0.00891	0.0106	0.0116
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	0.025	<0.020	0.022	0.024	<0.020	0.022
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.192	0.118	0.140	0.165	0.125	0.178
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	0.00040	<0.00040	0.00094	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	0.047	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	17.6	16.8	18.9	18.9	15.9	20.4
Moisture-Subcontracted	-	0.25	%	73	78	76	74	82	74

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-6: Wet weight metal concentrations of Walleye gonad tissue caught in Pinewood River, 2020.

Metals	Benchmark	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
				PineR-GN4	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN2	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN3
				WA2	WA5	WA6	WA6	WA7	WA9	WA11	WA13	WA15
				WA-2- GONAD	WA-5- GONAD	WA-6- GONAD	WA-6-Lab-Dup	WA-7- GONAD	WA-9- GONAD	WA-11-GONAD	WA-13-GONAD	WA-15-GONAD
Total (Wet Wt) Aluminum (Al)	-	0.20	mg/kg	2.52	4.90	0.75	0.53	8.48	1.09	1.20	2.39	0.34
Total (Wet Wt) Antimony (Sb)	1.30	0.0010	mg/kg	<0.0020	<0.0020	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	<0.0010
Total (Wet Wt) Arsenic (As)	1.00	0.0040	mg/kg	0.0613	0.0422	0.0135	0.0145	0.0625	0.0254	0.0219	0.0473	0.0319
Total (Wet Wt) Barium (Ba)	642.00	0.010	mg/kg	0.051	0.080	0.032	0.031	0.064	0.024	0.014	0.059	0.030
Total (Wet Wt) Beryllium (Be)	6.40	0.0010	mg/kg	<0.0020	<0.0020	<0.0010	<0.0010	<0.0020	<0.0010	<0.0020	<0.0020	<0.0010
Total (Wet Wt) Bismuth (Bi)	-	0.0010	mg/kg	0.0016	0.0018	0.0032	0.0031	0.0020	<0.0010	0.0014	0.0021	<0.0010
Total (Wet Wt) Boron (B)	56.20	0.20	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	1.95	<0.20	<0.20	<0.20
Total (Wet Wt) Cadmium (Cd)	3.20	0.0010	mg/kg	0.0067	0.0052	0.0095	0.0093	0.0119	0.0024	0.0038	0.0056	0.0035
Total (Wet Wt) Calcium (Ca)	-	2.0	mg/kg	212	157	236	238	174	55.5	114	394	288
Total (Wet Wt) Chromium (Cr)	3.20	0.010	mg/kg	0.060	0.066	<0.010	<0.010	0.113	0.011	0.029	0.079	<0.010
Total (Wet Wt) Cobalt (Co)	-	0.0013	mg/kg	0.0940	0.0637	0.0341	0.0334	0.0512	0.0086	0.123	0.0485	0.0555
Total (Wet Wt) Copper (Cu)	292.00	0.010	mg/kg	1.12	0.907	0.691	0.686	1.07	0.423	0.866	0.859	1.01
Total (Wet Wt) Iron (Fe)	-	0.25	mg/kg	53.9	25.1	21.6	23.0	35.8	24.3	34.7	34.0	19.7
Total (Wet Wt) Lead (Pb)	11.60	0.0040	mg/kg	<0.015	0.024	0.0383	0.0364	0.016	0.0300	<0.015	<0.015	0.0341
Total (Wet Wt) Magnesium (Mg)	-	0.40	mg/kg	377	392	274	278	406	258	324	371	343
Total (Wet Wt) Manganese (Mn)	392.00	0.010	mg/kg	0.576	0.586	2.08	2.12	0.598	0.512	0.275	0.661	4.13
Total (Wet Wt) Mercury (Hg)	0.50	0.0040	mg/kg	0.066	0.057	0.455	0.453	0.068	0.0679	0.066	0.097	0.0412
Total (Wet Wt) Molybdenum (Mo)	16.10	0.0040	mg/kg	0.0209	0.0171	0.0093	0.0099	0.0155	0.0042	0.0166	0.0191	0.0144
Total (Wet Wt) Nickel (Ni)	3.50	0.010	mg/kg	0.156	0.042	0.012	<0.010	0.044	0.019	0.013	0.033	0.010
Total (Wet Wt) Phosphorus (P)	-	2.0	mg/kg	6050	5800	2530	2590	6000	5290	6260	5820	3330
Total (Wet Wt) Potassium (K)	-	2.0	mg/kg	7040	6570	2470	2510	6410	5310	7280	6000	3530
Total (Wet Wt) Selenium (Se)	3.60	0.010	mg/kg	1.64	1.34	0.583	0.582	1.23	0.482	1.23	1.68	0.939
Total (Wet Wt) Silver (Ag)		0.0010	mg/kg	<0.0013	<0.0013	<0.0010	<0.0010	<0.0013	<0.0010	<0.0013	<0.0013	<0.0010
Total (Wet Wt) Sodium (Na)	-	2.0	mg/kg	807	1020	1200	1220	818	861	620	632	787
Total (Wet Wt) Strontium (Sr)	1,930.00	0.010	mg/kg	0.169	0.098	0.053	0.053	0.118	0.050	0.075	0.245	0.069
Total (Wet Wt) Thallium (Tl)	-	0.00040	mg/kg	0.0132	0.0113	0.00492	0.00510	0.0103	0.0123	0.0112	0.00827	0.00713
Total (Wet Wt) Tin (Sn)	-	0.020	mg/kg	<0.020	<0.020	0.026	0.025	<0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Titanium (Ti)		0.020	mg/kg	0.51	0.54	0.146	0.129	0.80	0.276	0.48	0.55	0.165
Total (Wet Wt) Uranium (U)	1.90	0.00040	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00063	<0.00040	<0.00040	<0.00040
Total (Wet Wt) Vanadium (V)	-	0.020	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	<0.020	<0.020	<0.020	<0.020
Total (Wet Wt) Zinc (Zn)	963.00	0.040	mg/kg	231	232	20.9	21.2	230	20.4	206	213	39.9
Moisture-Subcontracted	-	0.25	%	77	78	72	69	76	78	78	76	70

Abbreviations: Lab-Dup = Laboratory Initiated Duplicate

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(4) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

Table B-7: Dry weight metal concentrations of Northern Pike muscle tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
			PineR-GN2	PineR-AN1	PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1
			NP1	NP2	NP3	NP4	NP5	NP6	NP7	NP8
			NP-1 L.TISSUE	NP-2 L.TISSUE	NP-3 L.TISSUE	NP-4 L.TISSUE	NP-5 L.TISSUE	NP-6 L.TISSUE	NP-7 L.TISSUE	NP-8 L.TISSUE
Total (Dry Wt) Aluminum (Al)	0.6	mg/kg	1.6	<1.1	1.5	4.60	2.6	11.2	13.4	7.2
Total (Dry Wt) Antimony (Sb)	0.0030	mg/kg	<0.0051	<0.0053	<0.0054	<0.0050	<0.0052	<0.0050	<0.0049	<0.0054
Total (Dry Wt) Arsenic (As)	0.012	mg/kg	0.346	0.606	0.469	0.588	0.239	0.338	0.525	0.552
Total (Dry Wt) Barium (Ba)	0.030	mg/kg	0.511	0.196	0.454	0.484	0.200	0.451	0.211	0.653
Total (Dry Wt) Beryllium (Be)	0.0030	mg/kg	<0.0051	<0.0053	<0.0054	<0.0050	<0.0052	<0.0050	<0.0049	<0.0054
Total (Dry Wt) Bismuth (Bi)	0.0030	mg/kg	0.0175	0.0124	0.0170	0.0135	0.0112	0.0105	0.0150	0.0184
Total (Dry Wt) Boron (B)	0.60	mg/kg	<1.0	<1.1	<1.1	<0.99	<1.0	<1.0	<0.99	<1.1
Total (Dry Wt) Cadmium (Cd)	0.0030	mg/kg	<0.0051	0.0074	0.0105	0.0057	0.0067	0.0052	0.0068	0.0078
Total (Dry Wt) Cesium (Cs)	0.0030	mg/kg	0.0468	0.0344	0.0359	0.0308	0.0501	0.0366	0.0504	0.0470
Total (Dry Wt) Chromium (Cr)	0.030	mg/kg	<0.051	<0.053	<0.054	0.056	<0.052	<0.050	<0.049	<0.054
Total (Dry Wt) Cobalt (Co)	0.0038	mg/kg	0.0155	0.0118	0.0192	0.0188	0.0179	0.0181	0.0147	0.0190
Total (Dry Wt) Copper (Cu)	0.030	mg/kg	0.464	0.510	0.535	0.593	0.527	0.562	0.601	0.628
Total (Dry Wt) Iron (Fe)	0.75	mg/kg	9.1	6.6	9.8	13.3	11.3	11.9	11.4	13.7
Total (Dry Wt) Lithium (Li)	0.30	mg/kg	<0.51	<0.53	<0.54	<0.50	<0.52	<0.50	<0.49	<0.54
Total (Dry Wt) Manganese (Mn)	0.030	mg/kg	4.11	2.00	3.70	2.44	2.11	5.02	1.99	4.97
Total (Dry Wt) Mercury (Hg)	0.0060	mg/kg	2.17	2.14	3.03	1.44	3.22	1.36	1.86	2.79
Total (Dry Wt) Molybdenum (Mo)	0.012	mg/kg	<0.021	<0.021	<0.022	<0.020	<0.021	<0.020	<0.020	<0.022
Total (Dry Wt) Nickel (Ni)	0.030	mg/kg	<0.051	<0.053	<0.054	<0.050	<0.052	<0.050	<0.049	<0.054
Total (Dry Wt) Phosphorus (P)	6.0	mg/kg	14700	14300	13300	12300	12200	13600	12200	13600
Total (Dry Wt) Rubidium (Rb)	0.030	mg/kg	29.8	26.8	23.3	29.5	30.3	25.8	34.4	27.9
Total (Dry Wt) Selenium (Se)	0.030	mg/kg	0.961	1.02	0.991	1.00	0.869	0.835	0.896	0.973
Total (Dry Wt) Silver (Ag)	0.0030	mg/kg	<0.0051	<0.0053	<0.0054	<0.0050	<0.0052	<0.0050	<0.0049	<0.0054
Total (Dry Wt) Strontium (Sr)	0.030	mg/kg	2.72	1.33	1.60	1.25	0.931	2.71	0.977	2.72
Total (Dry Wt) Tellurium (Te)	0.012	mg/kg	<0.021	<0.021	<0.022	<0.020	<0.021	<0.020	<0.020	<0.022
Total (Dry Wt) Thallium (Tl)	0.0012	mg/kg	0.0104	0.0143	0.0096	0.0106	0.0094	0.0112	0.0165	0.0097
Total (Dry Wt) Tin (Sn)	0.060	mg/kg	<0.10	<0.11	<0.11	<0.099	<0.10	<0.10	<0.099	<0.11
Total (Dry Wt) Titanium (Ti)	0.060	mg/kg	1.04	1.02	0.96	0.941	0.81	0.95	0.931	0.92
Total (Dry Wt) Uranium (U)	0.0012	mg/kg	<0.0021	<0.0021	<0.0022	<0.0020	<0.0021	0.0024	0.0021	<0.0022
Total (Dry Wt) Vanadium (V)	0.060	mg/kg	<0.10	<0.11	<0.11	<0.099	<0.10	<0.10	<0.099	<0.11
Total (Dry Wt) Zinc (Zn)	0.12	mg/kg	23.8	23.8	23.6	23.9	22.5	22.3	28.5	23.6
Total (Dry Wt) Zirconium (Zr)	0.12	mg/kg	<0.21	<0.21	<0.22	<0.20	<0.21	<0.20	<0.20	<0.22
Total (Dry Wt) Calcium (Ca)	6.0	mg/kg	5410	3140	3240	2680	2150	4780	1920	4670
Total (Dry Wt) Magnesium (Mg)	1.2	mg/kg	1730	1670	1730	1490	1460	1630	1510	1660
Total (Dry Wt) Potassium (K)	6.0	mg/kg	21100	22500	20700	20200	20100	19700	20800	20700
Total (Dry Wt) Sodium (Na)	6.0	mg/kg	1910	2450	2380	1220	1820	2210	1200	1440

Table B-7: Dry weight metal concentrations of Northern Pike muscle tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
			PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6
			NP9	NP10	NP11	NP12	NP13	NP14	NP15
			NP-9 L.TISSUE	NP-10 L.TISSUE	NP-11 L.TISSUE	NP-12 L.TISSUE	NP-13 L.TISSUE	NP-14 L.TISSUE	NP-15 L.TISSUE
Total (Dry Wt) Aluminum (Al)	0.6	mg/kg	6.65	7.4	2.1	6.9	1.09	1.9	4.1
Total (Dry Wt) Antimony (Sb)	0.0030	mg/kg	<0.0048	<0.0052	<0.0053	<0.0054	<0.0045	<0.0054	<0.0052
Total (Dry Wt) Arsenic (As)	0.012	mg/kg	0.392	0.407	0.385	0.262	0.271	0.714	0.217
Total (Dry Wt) Barium (Ba)	0.030	mg/kg	0.412	0.257	0.663	0.211	<0.045	0.313	0.429
Total (Dry Wt) Beryllium (Be)	0.0030	mg/kg	<0.0048	<0.0052	<0.0053	<0.0054	<0.0045	<0.0054	<0.0052
Total (Dry Wt) Bismuth (Bi)	0.0030	mg/kg	0.0132	0.0169	0.0171	0.0166	0.0135	0.0172	0.0097
Total (Dry Wt) Boron (B)	0.60	mg/kg	<0.96	<1.0	<1.1	<1.1	<0.91	<1.1	<1.0
Total (Dry Wt) Cadmium (Cd)	0.0030	mg/kg	<0.0048	<0.0052	0.0058	<0.0054	<0.0045	<0.0054	0.0071
Total (Dry Wt) Cesium (Cs)	0.0030	mg/kg	0.0324	0.0397	0.0596	0.0585	0.0393	0.0316	0.0679
Total (Dry Wt) Chromium (Cr)	0.030	mg/kg	<0.048	0.586	<0.053	<0.054	<0.045	<0.054	<0.052
Total (Dry Wt) Cobalt (Co)	0.0038	mg/kg	0.0211	0.0197	0.0146	0.0170	0.0057	0.0147	0.0120
Total (Dry Wt) Copper (Cu)	0.030	mg/kg	0.461	0.559	0.546	0.567	0.438	0.553	0.513
Total (Dry Wt) Iron (Fe)	0.75	mg/kg	12.4	18.4	7.6	15.0	4.8	7.3	7.1
Total (Dry Wt) Lithium (Li)	0.30	mg/kg	<0.48	<0.52	<0.53	<0.54	<0.45	<0.54	<0.52
Total (Dry Wt) Manganese (Mn)	0.030	mg/kg	3.38	2.89	5.89	2.85	0.572	4.93	4.55
Total (Dry Wt) Mercury (Hg)	0.0060	mg/kg	1.70	1.76	3.01	1.96	1.79	2.19	2.44
Total (Dry Wt) Molybdenum (Mo)	0.012	mg/kg	<0.019	0.026	<0.021	<0.022	<0.018	<0.022	<0.021
Total (Dry Wt) Nickel (Ni)	0.030	mg/kg	<0.048	<0.052	<0.053	<0.054	<0.045	<0.054	<0.052
Total (Dry Wt) Phosphorus (P)	6.0	mg/kg	12300	13000	15900	13000	10700	13600	13100
Total (Dry Wt) Rubidium (Rb)	0.030	mg/kg	23.7	25.4	35.9	35.7	31.3	23.9	36.5
Total (Dry Wt) Selenium (Se)	0.030	mg/kg	0.817	1.17	0.829	0.942	0.859	0.921	0.762
Total (Dry Wt) Silver (Ag)	0.0030	mg/kg	<0.0048	<0.0052	<0.0053	<0.0054	<0.0045	<0.0054	<0.0052
Total (Dry Wt) Strontium (Sr)	0.030	mg/kg	2.00	1.19	3.73	1.17	0.158	1.69	2.03
Total (Dry Wt) Tellurium (Te)	0.012	mg/kg	<0.019	<0.021	<0.021	<0.022	<0.018	<0.022	<0.021
Total (Dry Wt) Thallium (Tl)	0.0012	mg/kg	0.0128	0.0141	0.0122	0.0104	0.0104	0.0124	0.0113
Total (Dry Wt) Tin (Sn)	0.060	mg/kg	<0.096	<0.10	<0.11	<0.11	<0.091	<0.11	<0.10
Total (Dry Wt) Titanium (Ti)	0.060	mg/kg	1.12	1.09	1.17	1.03	0.729	0.88	0.95
Total (Dry Wt) Uranium (U)	0.0012	mg/kg	0.0022	<0.0021	<0.0021	<0.0022	<0.0018	<0.0022	<0.0021
Total (Dry Wt) Vanadium (V)	0.060	mg/kg	<0.096	<0.10	<0.11	<0.11	<0.091	<0.11	<0.10
Total (Dry Wt) Zinc (Zn)	0.12	mg/kg	27.3	22.4	19.9	23.9	17.7	18.0	19.9
Total (Dry Wt) Zirconium (Zr)	0.12	mg/kg	<0.19	<0.21	<0.21	<0.22	<0.18	<0.22	<0.21
Total (Dry Wt) Calcium (Ca)	6.0	mg/kg	3440	2900	7340	2570	733	3070	4150
Total (Dry Wt) Magnesium (Mg)	1.2	mg/kg	1440	1620	1790	1720	1400	1630	1510
Total (Dry Wt) Potassium (K)	6.0	mg/kg	19100	20800	21900	21300	18700	21600	19500
Total (Dry Wt) Sodium (Na)	6.0	mg/kg	1350	1190	1920	2400	1780	1380	2160

Table B-8: Dry weight metal concentrations of Northern Pike liver tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
			PineR-GN2	PineR-AN1	PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1
			NP1	NP2	NP3	NP4	NP5	NP6	NP7	NP8
			NP-1 LIVER	NP-2 LIVER	NP-3 LIVER	NP-4 LIVER	NP-5 LIVER	NP-6 LIVER	NP-7 LIVER	NP-8 LIVER
Total (Dry Wt) Aluminum (Al)	0.60	mg/kg	5.76	3.10	20.3	3.98	17.5	3.48	6.44	6.02
Total (Dry Wt) Antimony (Sb)	0.0030	mg/kg	0.0055	<0.0038	0.0198	0.0044	0.0088	0.0059	<0.0028	0.0080
Total (Dry Wt) Arsenic (As)	0.012	mg/kg	0.127	0.152	0.177	0.213	0.202	0.152	0.238	0.154
Total (Dry Wt) Barium (Ba)	0.030	mg/kg	0.037	<0.038	0.059	0.048	0.084	0.045	0.078	0.045
Total (Dry Wt) Beryllium (Be)	0.0030	mg/kg	<0.0027	<0.0038	<0.0030	<0.0027	<0.0046	<0.0030	<0.0028	<0.0025
Total (Dry Wt) Bismuth (Bi)	0.0030	mg/kg	0.0215	0.0156	0.0849	0.0168	0.0306	0.0132	0.0224	0.0254
Total (Dry Wt) Boron (B)	0.60	mg/kg	<0.54	<0.75	<0.60	<0.54	<0.91	<0.60	<0.56	<0.49
Total (Dry Wt) Cadmium (Cd)	0.0030	mg/kg	0.366	0.498	1.20	0.469	1.50	0.521	0.574	0.880
Total (Dry Wt) Cesium (Cs)	0.0030	mg/kg	0.0090	0.0277	0.0096	0.0117	0.0237	0.0117	0.0139	0.0115
Total (Dry Wt) Chromium (Cr)	0.030	mg/kg	0.029	<0.038	0.048	0.028	0.058	0.031	0.041	0.026
Total (Dry Wt) Cobalt (Co)	0.0038	mg/kg	0.149	0.103	0.313	0.196	0.337	0.175	0.168	0.227
Total (Dry Wt) Copper (Cu)	0.030	mg/kg	103	42.7	210	129	112	101	122	131
Total (Dry Wt) Iron (Fe)	0.75	mg/kg	756	389	390	1570	451	860	715	1320
Total (Dry Wt) Lithium (Li)	0.30	mg/kg	<0.27	<0.38	<0.30	<0.27	<0.46	<0.30	<0.28	<0.25
Total (Dry Wt) Manganese (Mn)	0.030	mg/kg	2.27	4.34	4.04	4.15	6.67	4.13	4.19	3.21
Total (Dry Wt) Mercury (Hg)	0.0060	mg/kg	0.654	0.846	2.00	0.512	2.03	0.538	0.803	0.947
Total (Dry Wt) Molybdenum (Mo)	0.012	mg/kg	0.569	0.349	1.05	0.838	1.03	0.780	0.764	0.607
Total (Dry Wt) Nickel (Ni)	0.030	mg/kg	0.073	0.046	0.181	0.080	0.171	0.092	0.072	0.120
Total (Dry Wt) Phosphorus (P)	6.0	mg/kg	6720	9940	8970	9430	15700	9490	8210	7350
Total (Dry Wt) Rubidium (Rb)	0.030	mg/kg	13.9	25.9	15.9	16.3	32.7	12.5	15.9	11.4
Total (Dry Wt) Selenium (Se)	0.030	mg/kg	7.80	7.11	11.3	10.3	9.44	8.00	7.09	7.86
Total (Dry Wt) Silver (Ag)	0.0030	mg/kg	0.513	0.0994	0.703	0.301	0.279	0.376	0.489	0.779
Total (Dry Wt) Strontium (Sr)	0.030	mg/kg	0.093	0.066	0.105	0.162	0.200	0.195	0.162	0.170
Total (Dry Wt) Tellurium (Te)	0.012	mg/kg	0.017	<0.015	0.045	0.014	0.021	0.016	0.013	0.0159
Total (Dry Wt) Thallium (Tl)	0.0012	mg/kg	0.0100	0.0163	0.0112	0.0128	0.0170	0.0117	0.0148	0.00850
Total (Dry Wt) Tin (Sn)	0.060	mg/kg	<0.054	<0.075	<0.060	0.078	<0.091	0.078	<0.056	<0.049
Total (Dry Wt) Titanium (Ti)	0.060	mg/kg	0.328	0.473	0.535	0.537	0.896	0.505	0.508	0.335
Total (Dry Wt) Uranium (U)	0.0012	mg/kg	0.0014	0.0026	0.0056	<0.0011	0.0085	<0.0012	<0.0011	0.00220
Total (Dry Wt) Vanadium (V)	0.060	mg/kg	1.35	0.477	4.55	0.580	1.92	0.494	0.676	1.89
Total (Dry Wt) Zinc (Zn)	0.12	mg/kg	148	133	209	200	248	259	228	143
Total (Dry Wt) Zirconium (Zr)	0.12	mg/kg	<0.11	<0.15	<0.12	<0.11	<0.18	<0.12	<0.11	<0.099
Total (Dry Wt) Calcium (Ca)	6.0	mg/kg	138	123	131	236	310	361	160	174
Total (Dry Wt) Magnesium (Mg)	1.2	mg/kg	380	609	493	582	967	564	483	440
Total (Dry Wt) Potassium (K)	6.0	mg/kg	6900	12400	9150	8140	13600	7280	7360	6820
Total (Dry Wt) Sodium (Na)	6.0	mg/kg	2350	2910	2720	2320	4830	2510	2350	2280

Table B-8: Dry weight metal concentrations of Northern Pike liver tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
			PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6
			NP9	NP10	NP11	NP12	NP13	NP14	NP15
			NP-9 LIVER	NP-10 LIVER	NP-11 LIVER	NP-12 LIVER	NP-13 LIVER	NP-14 LIVER	NP-15 LIVER
Total (Dry Wt) Aluminum (Al)	0.60	mg/kg	4.11	4.72	11.6	4.48	0.80	3.10	11.9
Total (Dry Wt) Antimony (Sb)	0.0030	mg/kg	0.0038	0.0048	0.0087	0.0050	<0.0034	0.0030	0.0061
Total (Dry Wt) Arsenic (As)	0.012	mg/kg	0.148	0.175	0.216	0.110	0.082	0.197	0.192
Total (Dry Wt) Barium (Ba)	0.030	mg/kg	0.056	0.049	0.066	0.062	<0.034	0.039	0.071
Total (Dry Wt) Beryllium (Be)	0.0030	mg/kg	<0.0032	<0.0031	<0.0045	<0.0031	<0.0034	<0.0023	<0.0042
Total (Dry Wt) Bismuth (Bi)	0.0030	mg/kg	0.0166	0.0236	0.0462	0.0246	0.0162	0.0118	0.0476
Total (Dry Wt) Boron (B)	0.60	mg/kg	<0.64	<0.62	<0.90	<0.62	<0.67	<0.47	<0.84
Total (Dry Wt) Cadmium (Cd)	0.0030	mg/kg	0.385	0.611	0.978	0.245	0.102	0.237	1.36
Total (Dry Wt) Cesium (Cs)	0.0030	mg/kg	0.0131	0.0120	0.0292	0.0200	0.0196	0.0043	0.0372
Total (Dry Wt) Chromium (Cr)	0.030	mg/kg	0.045	0.061	<0.045	0.293	<0.034	0.027	0.116
Total (Dry Wt) Cobalt (Co)	0.0038	mg/kg	0.257	0.213	0.297	0.161	0.0514	0.144	0.414
Total (Dry Wt) Copper (Cu)	0.030	mg/kg	94.9	143	155	96.2	34.6	57.6	207
Total (Dry Wt) Iron (Fe)	0.75	mg/kg	674	625	251	401	68.8	926	743
Total (Dry Wt) Lithium (Li)	0.30	mg/kg	<0.32	<0.31	<0.45	<0.31	<0.34	<0.23	<0.42
Total (Dry Wt) Manganese (Mn)	0.030	mg/kg	3.80	4.80	6.30	4.50	3.17	2.16	5.80
Total (Dry Wt) Mercury (Hg)	0.0060	mg/kg	0.717	0.735	2.55	0.768	0.611	0.341	1.85
Total (Dry Wt) Molybdenum (Mo)	0.012	mg/kg	0.585	0.871	1.06	0.645	0.284	0.419	1.14
Total (Dry Wt) Nickel (Ni)	0.030	mg/kg	0.088	0.104	0.147	0.076	<0.034	0.062	0.167
Total (Dry Wt) Phosphorus (P)	6.0	mg/kg	11200	9530	16400	9040	7740	5360	11700
Total (Dry Wt) Rubidium (Rb)	0.030	mg/kg	14.2	15.1	34.9	21.6	26.2	6.43	35.6
Total (Dry Wt) Selenium (Se)	0.030	mg/kg	9.32	9.37	10.3	7.28	5.83	5.12	10.7
Total (Dry Wt) Silver (Ag)	0.0030	mg/kg	0.320	0.386	0.807	0.324	0.0565	0.174	0.537
Total (Dry Wt) Strontium (Sr)	0.030	mg/kg	0.143	0.135	0.247	0.224	0.073	0.105	0.235
Total (Dry Wt) Tellurium (Te)	0.012	mg/kg	<0.013	0.022	0.038	0.015	<0.013	<0.0093	0.027
Total (Dry Wt) Thallium (Tl)	0.0012	mg/kg	0.0110	0.0122	0.0239	0.0107	0.0083	0.00880	0.0167
Total (Dry Wt) Tin (Sn)	0.060	mg/kg	<0.064	<0.062	<0.090	0.121	<0.067	0.051	0.115
Total (Dry Wt) Titanium (Ti)	0.060	mg/kg	0.584	0.544	0.800	0.542	0.399	0.222	0.733
Total (Dry Wt) Uranium (U)	0.0012	mg/kg	0.0025	0.0012	0.0141	0.0015	<0.0013	0.00210	0.0031
Total (Dry Wt) Vanadium (V)	0.060	mg/kg	1.40	0.517	2.71	0.408	0.131	0.619	1.19
Total (Dry Wt) Zinc (Zn)	0.12	mg/kg	216	231	246	237	141	76.9	260
Total (Dry Wt) Zirconium (Zr)	0.12	mg/kg	<0.13	<0.12	<0.18	<0.12	<0.13	<0.093	<0.17
Total (Dry Wt) Calcium (Ca)	6.0	mg/kg	193	213	376	472	149	151	307
Total (Dry Wt) Magnesium (Mg)	1.2	mg/kg	647	609	909	545	486	328	683
Total (Dry Wt) Potassium (K)	6.0	mg/kg	9650	8520	15000	7590	9540	5000	11700
Total (Dry Wt) Sodium (Na)	6.0	mg/kg	2710	2590	4360	2440	2530	2160	4990

Table B-9: Dry weight metal concentrations of Northern Pike gonad tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20
			PineR-AN1	PineR-GN1	PineR-GN1	PineR-GN1	PineR-GN6
			NP2	NP5	NP9	NP11	NP13
			NP-2- GONAD	NP-5- GONAD	NP-9 GONAD	NP-11 GONAD	NP-13 GONAD
Total (Dry Wt) Aluminum (Al)	0.60	mg/kg	2.5	22.3	9.4	4.1	1.4
Total (Dry Wt) Antimony (Sb)	0.0030	mg/kg	<0.0057	<0.0057	<0.0061	<0.0058	<0.0053
Total (Dry Wt) Arsenic (As)	0.012	mg/kg	0.198	0.125	0.223	0.160	0.148
Total (Dry Wt) Barium (Ba)	0.030	mg/kg	0.133	0.160	0.154	0.143	0.087
Total (Dry Wt) Beryllium (Be)	0.0030	mg/kg	<0.0057	<0.0057	<0.0061	<0.0058	<0.0053
Total (Dry Wt) Bismuth (Bi)	0.0030	mg/kg	<0.0057	<0.0057	<0.0061	<0.0058	<0.0053
Total (Dry Wt) Boron (B)	0.60	mg/kg	<1.1	<1.1	<1.2	<1.2	<1.1
Total (Dry Wt) Cadmium (Cd)	0.0030	mg/kg	0.168	0.108	0.0402	0.0976	0.0311
Total (Dry Wt) Cesium (Cs)	0.0030	mg/kg	0.0447	0.0487	0.0416	0.0544	0.0441
Total (Dry Wt) Chromium (Cr)	0.030	mg/kg	<0.057	0.075	0.221	0.079	<0.053
Total (Dry Wt) Cobalt (Co)	0.0038	mg/kg	0.283	0.369	0.533	0.431	0.148
Total (Dry Wt) Copper (Cu)	0.030	mg/kg	4.25	5.09	5.60	6.19	5.26
Total (Dry Wt) Iron (Fe)	0.75	mg/kg	173	276	308	332	130
Total (Dry Wt) Lithium (Li)	0.30	mg/kg	<0.57	<0.57	<0.61	<0.58	<0.53
Total (Dry Wt) Manganese (Mn)	0.030	mg/kg	68.2	205	134	240	90.1
Total (Dry Wt) Mercury (Hg)	0.0060	mg/kg	0.532	0.488	0.258	0.482	0.401
Total (Dry Wt) Molybdenum (Mo)	0.012	mg/kg	0.080	0.330	0.332	0.291	0.114
Total (Dry Wt) Nickel (Ni)	0.030	mg/kg	0.069	0.085	0.093	0.082	0.074
Total (Dry Wt) Phosphorus (P)	6.0	mg/kg	17900	17900	18400	17300	15500
Total (Dry Wt) Rubidium (Rb)	0.030	mg/kg	34.0	42.6	38.1	44.8	39.0
Total (Dry Wt) Selenium (Se)	0.030	mg/kg	6.24	4.58	5.05	5.33	4.59
Total (Dry Wt) Silver (Ag)	0.0030	mg/kg	<0.0057	<0.0057	<0.0061	<0.0058	<0.0053
Total (Dry Wt) Strontium (Sr)	0.030	mg/kg	1.25	0.412	0.285	0.629	0.458
Total (Dry Wt) Tellurium (Te)	0.012	mg/kg	<0.023	<0.023	<0.024	<0.023	<0.021
Total (Dry Wt) Thallium (Tl)	0.0012	mg/kg	0.0278	0.0236	0.0237	0.0226	0.0233
Total (Dry Wt) Tin (Sn)	0.060	mg/kg	0.12	<0.11	<0.12	0.12	<0.11
Total (Dry Wt) Titanium (Ti)	0.060	mg/kg	0.92	1.61	1.11	0.88	0.75
Total (Dry Wt) Uranium (U)	0.0012	mg/kg	0.0027	0.0039	<0.0024	0.0030	<0.0021
Total (Dry Wt) Vanadium (V)	0.060	mg/kg	0.11	0.35	0.41	0.34	<0.11
Total (Dry Wt) Zinc (Zn)	0.12	mg/kg	495	493	406	337	390
Total (Dry Wt) Zirconium (Zr)	0.12	mg/kg	<0.23	<0.23	<0.24	<0.23	<0.21
Total (Dry Wt) Calcium (Ca)	6.0	mg/kg	2770	974	619	1340	1100
Total (Dry Wt) Magnesium (Mg)	1.2	mg/kg	1160	1270	1390	1250	1130
Total (Dry Wt) Potassium (K)	6.0	mg/kg	23100	23700	25000	22700	20300
Total (Dry Wt) Sodium (Na)	6.0	mg/kg	5090	3580	3900	4770	4150

Table B-10: Dry weight metal concentrations of Walleye muscle tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	11-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20
			PineR-AN2	PineR-GN4	PineR-GN7	PineR-GN7	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN1
			WA1	WA2	WA3	WA4	WA5	WA6	WA7	WA8
			WA-1 L.TISSUE	WA-2 L.TISSUE	WA-3 L.TISSUE	WA-4 L.TISSUE	WA-5 L.TISSUE	WA-6 L.TISSUE	WA-7 L.TISSUE	WA-8 L.TISSUE
Total (Dry Wt) Aluminum (Al)	1.0	mg/kg	1.24	1.32	4.4	1.7	2.28	6.1	6.65	2.9
Total (Dry Wt) Antimony (Sb)	0.0050	mg/kg	<0.0049	<0.0049	<0.0051	<0.0052	<0.0047	<0.0051	<0.0049	<0.0053
Total (Dry Wt) Arsenic (As)	0.020	mg/kg	0.337	0.330	0.393	0.301	0.224	0.594	0.255	0.224
Total (Dry Wt) Barium (Ba)	0.050	mg/kg	0.052	<0.049	0.192	<0.052	<0.047	0.071	0.062	0.064
Total (Dry Wt) Beryllium (Be)	0.0050	mg/kg	<0.0049	<0.0049	<0.0051	<0.0052	<0.0047	<0.0051	<0.0049	<0.0053
Total (Dry Wt) Bismuth (Bi)	0.0050	mg/kg	0.0157	0.0071	0.0193	0.0069	0.0083	0.0273	0.0100	0.0137
Total (Dry Wt) Boron (B)	1.0	mg/kg	<0.99	<0.98	<1.0	<1.0	<0.94	<1.0	<0.98	<1.1
Total (Dry Wt) Cadmium (Cd)	0.0050	mg/kg	0.0063	<0.0049	<0.0051	<0.0052	<0.0047	<0.0051	<0.0049	<0.0053
Total (Dry Wt) Cesium (Cs)	0.0050	mg/kg	0.0786	0.0494	0.0739	0.0596	0.0534	0.102	0.0586	0.0736
Total (Dry Wt) Chromium (Cr)	0.050	mg/kg	<0.049	<0.049	<0.051	<0.052	<0.047	<0.051	0.076	<0.053
Total (Dry Wt) Cobalt (Co)	0.0062	mg/kg	0.0086	0.0069	<0.0064	0.0068	0.0063	0.0065	0.0098	0.0068
Total (Dry Wt) Copper (Cu)	0.050	mg/kg	0.598	0.535	0.518	0.569	0.517	0.445	0.578	0.572
Total (Dry Wt) Iron (Fe)	1.2	mg/kg	9.0	7.1	7.0	8.2	6.5	10.9	10.4	8.8
Total (Dry Wt) Lithium (Li)	0.50	mg/kg	<0.49	<0.49	<0.51	<0.52	<0.47	<0.51	<0.49	<0.53
Total (Dry Wt) Manganese (Mn)	0.050	mg/kg	0.607	0.454	0.417	0.680	0.625	0.385	0.665	0.655
Total (Dry Wt) Mercury (Hg)	0.010	mg/kg	3.57	1.63	1.77	1.41	1.38	8.98	1.13	2.46
Total (Dry Wt) Molybdenum (Mo)	0.020	mg/kg	<0.020	<0.020	<0.021	<0.021	<0.019	<0.020	<0.020	<0.021
Total (Dry Wt) Nickel (Ni)	0.050	mg/kg	<0.049	<0.049	0.099	<0.052	<0.047	<0.051	0.200	<0.053
Total (Dry Wt) Phosphorus (P)	10	mg/kg	14400	11600	12100	12300	11400	12300	12700	12500
Total (Dry Wt) Rubidium (Rb)	0.050	mg/kg	61.0	57.3	52.9	57.2	56.0	75.2	67.8	61.3
Total (Dry Wt) Selenium (Se)	0.050	mg/kg	1.46	1.20	0.785	1.26	0.962	1.15	1.16	1.20
Total (Dry Wt) Silver (Ag)	0.0050	mg/kg	<0.0049	<0.0049	<0.0051	<0.0052	<0.0047	<0.0051	<0.0049	<0.0053
Total (Dry Wt) Strontium (Sr)	0.050	mg/kg	0.090	0.073	1.03	0.094	0.116	0.117	0.092	0.225
Total (Dry Wt) Tellurium (Te)	0.020	mg/kg	<0.020	<0.020	<0.021	<0.021	<0.019	<0.020	<0.020	<0.021
Total (Dry Wt) Thallium (Tl)	0.0020	mg/kg	0.0190	0.0183	0.0188	0.0222	0.0175	0.0164	0.0176	0.0193
Total (Dry Wt) Tin (Sn)	0.10	mg/kg	<0.099	<0.098	<0.10	<0.10	0.244	<0.10	<0.098	<0.11
Total (Dry Wt) Titanium (Ti)	0.10	mg/kg	0.956	0.834	0.81	0.80	0.799	0.94	1.06	0.95
Total (Dry Wt) Uranium (U)	0.0020	mg/kg	<0.0020	<0.0020	<0.0021	<0.0021	<0.0019	<0.0020	<0.0020	<0.0021
Total (Dry Wt) Vanadium (V)	0.10	mg/kg	<0.099	<0.098	<0.10	<0.10	<0.094	<0.10	<0.098	<0.11
Total (Dry Wt) Zinc (Zn)	0.20	mg/kg	15.0	14.7	15.1	16.0	14.5	14.0	15.5	16.2
Total (Dry Wt) Zirconium (Zr)	0.20	mg/kg	<0.20	<0.20	<0.21	<0.21	<0.19	<0.20	<0.20	<0.21
Total (Dry Wt) Calcium (Ca)	10	mg/kg	636	591	2400	695	658	471	613	1050
Total (Dry Wt) Magnesium (Mg)	2.0	mg/kg	1860	1490	1480	1580	1520	1540	1620	1690
Total (Dry Wt) Potassium (K)	10	mg/kg	26900	22100	20900	23400	22000	22000	23900	23000
Total (Dry Wt) Sodium (Na)	10	mg/kg	1340	1910	1410	1460	1090	1550	1470	2480

Table B-10: Dry weight metal concentrations of Walleye muscle tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
			PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN3
			WA9	WA10	WA11	WA12	WA13	WA14	WA15
			WA-9 L.TISSUE	WA-10 L.TISSUE	WA-11 L.TISSUE	WA-12 L.TISSUE	WA-13 L.TISSUE	WA-14 L.TISSUE	WA-15 L.TISSUE
Total (Dry Wt) Aluminum (Al)	1.0	mg/kg	9.7	3.0	1.2	18.6	1.5	<1.1	1.09
Total (Dry Wt) Antimony (Sb)	0.0050	mg/kg	<0.0051	<0.0050	<0.0051	<0.0047	<0.0052	<0.0054	<0.0047
Total (Dry Wt) Arsenic (As)	0.020	mg/kg	0.215	0.154	0.153	0.709	0.216	0.213	0.161
Total (Dry Wt) Barium (Ba)	0.050	mg/kg	0.091	0.065	<0.051	0.072	<0.052	<0.054	0.075
Total (Dry Wt) Beryllium (Be)	0.0050	mg/kg	<0.0051	<0.0050	<0.0051	<0.0047	<0.0052	<0.0054	<0.0047
Total (Dry Wt) Bismuth (Bi)	0.0050	mg/kg	0.0104	<0.0050	0.0126	0.0106	0.0096	0.0097	0.0093
Total (Dry Wt) Boron (B)	1.0	mg/kg	<1.0	<1.0	<1.0	<0.93	<1.0	<1.1	<0.93
Total (Dry Wt) Cadmium (Cd)	0.0050	mg/kg	<0.0051	<0.0050	<0.0051	<0.0047	<0.0052	<0.0054	<0.0047
Total (Dry Wt) Cesium (Cs)	0.0050	mg/kg	0.0656	0.0747	0.0677	0.0533	0.0462	0.0538	0.0645
Total (Dry Wt) Chromium (Cr)	0.050	mg/kg	0.053	<0.050	0.188	0.052	<0.052	<0.054	<0.047
Total (Dry Wt) Cobalt (Co)	0.0062	mg/kg	0.0098	<0.0062	0.0064	0.0071	<0.0065	0.0071	<0.0058
Total (Dry Wt) Copper (Cu)	0.050	mg/kg	0.520	0.512	0.581	0.493	0.527	0.582	0.527
Total (Dry Wt) Iron (Fe)	1.2	mg/kg	16.0	7.2	7.7	7.1	5.9	4.5	6.5
Total (Dry Wt) Lithium (Li)	0.50	mg/kg	<0.51	<0.50	<0.51	<0.47	<0.52	<0.54	<0.47
Total (Dry Wt) Manganese (Mn)	0.050	mg/kg	0.789	0.495	0.530	0.429	0.592	0.587	0.561
Total (Dry Wt) Mercury (Hg)	0.010	mg/kg	2.03	1.16	1.72	3.50	1.06	1.05	1.68
Total (Dry Wt) Molybdenum (Mo)	0.020	mg/kg	<0.020	<0.020	<0.020	<0.019	<0.021	<0.022	<0.019
Total (Dry Wt) Nickel (Ni)	0.050	mg/kg	<0.051	<0.050	<0.051	0.669	0.075	<0.054	<0.047
Total (Dry Wt) Phosphorus (P)	10	mg/kg	12100	12600	12900	11200	12300	12100	11800
Total (Dry Wt) Rubidium (Rb)	0.050	mg/kg	58.0	87.5	65.3	40.3	49.2	55.8	63.6
Total (Dry Wt) Selenium (Se)	0.050	mg/kg	1.20	0.953	1.13	1.17	1.21	1.17	0.953
Total (Dry Wt) Silver (Ag)	0.0050	mg/kg	<0.0051	<0.0050	<0.0051	<0.0047	<0.0052	<0.0054	<0.0047
Total (Dry Wt) Strontium (Sr)	0.050	mg/kg	0.103	0.184	0.227	0.368	0.229	0.176	0.612
Total (Dry Wt) Tellurium (Te)	0.020	mg/kg	<0.020	<0.020	<0.020	<0.019	<0.021	<0.022	<0.019
Total (Dry Wt) Thallium (Tl)	0.0020	mg/kg	0.0144	0.0210	0.0181	0.0188	0.0172	0.0204	0.0157
Total (Dry Wt) Tin (Sn)	0.10	mg/kg	<0.10	<0.10	<0.10	<0.093	<0.10	<0.11	<0.093
Total (Dry Wt) Titanium (Ti)	0.10	mg/kg	1.05	0.90	0.90	0.813	0.85	0.83	0.816
Total (Dry Wt) Uranium (U)	0.0020	mg/kg	<0.0020	<0.0020	<0.0020	<0.0019	<0.0021	<0.0022	<0.0019
Total (Dry Wt) Vanadium (V)	0.10	mg/kg	<0.10	<0.10	<0.10	<0.093	<0.10	<0.11	<0.093
Total (Dry Wt) Zinc (Zn)	0.20	mg/kg	14.0	13.6	15.3	12.7	16.1	15.0	13.9
Total (Dry Wt) Zirconium (Zr)	0.20	mg/kg	<0.20	<0.20	<0.20	<0.19	<0.21	<0.22	<0.19
Total (Dry Wt) Calcium (Ca)	10	mg/kg	614	805	988	1120	1020	868	1920
Total (Dry Wt) Magnesium (Mg)	2.0	mg/kg	1570	1610	1650	1410	1570	1550	1450
Total (Dry Wt) Potassium (K)	10	mg/kg	22800	22700	24700	19500	22600	21700	21000
Total (Dry Wt) Sodium (Na)	10	mg/kg	2190	1730	2150	1500	2100	2200	1380

Table B-11: Dry weight metal concentrations of Walleye liver tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	11-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20
			PineR-AN2	PineR-GN4	PineR-GN7	PineR-GN7	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN1
			WA1	WA2	WA3	WA4	WA5	WA6	WA7	WA8
			WA-1 LIVER	WA-2 LIVER	WA-3 LIVER	WA-4 LIVER	WA-5 LIVER	WA-6 LIVER	WA-7 LIVER	WA-8 LIVER
Total (Dry Wt) Aluminum (Al)	1.0	mg/kg	3.54	1.51	2.98	2.12	3.9	3.85	4.82	3.45
Total (Dry Wt) Antimony (Sb)	0.0050	mg/kg	<0.0040	<0.0045	<0.0040	<0.0042	<0.0070	<0.0042	<0.0041	<0.0035
Total (Dry Wt) Arsenic (As)	0.020	mg/kg	0.139	0.430	0.170	0.142	0.794	0.086	0.274	0.167
Total (Dry Wt) Barium (Ba)	0.050	mg/kg	0.040	0.152	0.090	0.052	0.166	0.046	0.066	<0.035
Total (Dry Wt) Beryllium (Be)	0.0050	mg/kg	<0.0040	<0.0045	<0.0040	<0.0042	<0.0070	<0.0042	<0.0041	<0.0035
Total (Dry Wt) Bismuth (Bi)	0.0050	mg/kg	0.0073	0.0058	0.0185	0.0064	0.0117	0.0164	0.0077	0.0046
Total (Dry Wt) Boron (B)	1.0	mg/kg	<0.79	<0.90	<0.80	<0.84	<1.4	<0.85	<0.83	<0.69
Total (Dry Wt) Cadmium (Cd)	0.0050	mg/kg	2.20	0.643	0.865	1.37	1.1900	1.12	1.22	0.305
Total (Dry Wt) Cesium (Cs)	0.0050	mg/kg	0.0190	0.0263	0.0261	0.0317	0.0562	0.0297	0.0305	0.0285
Total (Dry Wt) Chromium (Cr)	0.050	mg/kg	<0.040	<0.045	<0.040	<0.042	0.083	<0.042	0.057	<0.035
Total (Dry Wt) Cobalt (Co)	0.0062	mg/kg	1.32	0.765	1.60	0.970	0.695	0.223	0.829	0.396
Total (Dry Wt) Copper (Cu)	0.050	mg/kg	6.08	8.26	51.9	6.32	9.81	3.12	7.61	3.98
Total (Dry Wt) Iron (Fe)	1.2	mg/kg	846	771	488	550	822	133	709	429
Total (Dry Wt) Lithium (Li)	0.50	mg/kg	<0.40	<0.45	<0.40	<0.42	<0.70	<0.42	<0.41	<0.35
Total (Dry Wt) Manganese (Mn)	0.050	mg/kg	3.27	6.79	4.35	6.72	8.86	4.97	6.40	3.00
Total (Dry Wt) Mercury (Hg)	0.010	mg/kg	0.825	0.568	0.718	0.507	0.685	6.12	0.533	0.445
Total (Dry Wt) Molybdenum (Mo)	0.020	mg/kg	0.418	0.778	0.476	0.572	0.920	0.344	0.778	0.385
Total (Dry Wt) Nickel (Ni)	0.050	mg/kg	0.084	0.451	0.063	0.087	0.128	<0.042	0.092	0.069
Total (Dry Wt) Phosphorus (P)	10	mg/kg	9350	13300	11100	12900	20200	10800	13300	9570
Total (Dry Wt) Rubidium (Rb)	0.050	mg/kg	22.5	35.6	27.6	33.9	58.5	29.8	32.1	28.0
Total (Dry Wt) Selenium (Se)	0.050	mg/kg	3.94	4.02	3.99	4.38	5.63	3.64	3.86	2.76
Total (Dry Wt) Silver (Ag)	0.0050	mg/kg	<0.0040	<0.0045	0.0877	<0.0042	<0.0070	<0.0042	<0.0041	<0.0035
Total (Dry Wt) Strontium (Sr)	0.050	mg/kg	0.193	0.388	0.463	0.254	0.229	0.127	0.276	0.124
Total (Dry Wt) Tellurium (Te)	0.020	mg/kg	0.016	<0.018	<0.016	<0.017	<0.028	0.054	<0.017	<0.014
Total (Dry Wt) Thallium (Tl)	0.0020	mg/kg	0.0285	0.0540	0.0433	0.0549	0.0844	0.0325	0.0519	0.0271
Total (Dry Wt) Tin (Sn)	0.10	mg/kg	0.084	0.094	0.092	<0.084	<0.14	0.105	0.102	<0.069
Total (Dry Wt) Titanium (Ti)	0.10	mg/kg	0.633	0.959	0.773	0.967	1.46	0.721	1.06	0.682
Total (Dry Wt) Uranium (U)	0.0020	mg/kg	0.0018	<0.0018	0.0027	<0.0017	<0.0028	0.0046	<0.0017	<0.0014
Total (Dry Wt) Vanadium (V)	0.10	mg/kg	0.229	0.101	0.169	<0.084	<0.14	0.124	<0.083	<0.069
Total (Dry Wt) Zinc (Zn)	0.20	mg/kg	65.2	90.9	106	80.5	132	64.0	91.7	54.2
Total (Dry Wt) Zirconium (Zr)	0.20	mg/kg	<0.16	<0.18	<0.16	<0.17	<0.28	<0.17	<0.17	<0.14
Total (Dry Wt) Calcium (Ca)	10	mg/kg	356	637	825	588	396	259	359	247
Total (Dry Wt) Magnesium (Mg)	2.0	mg/kg	589	755	688	792	1170	664	807	608
Total (Dry Wt) Potassium (K)	10	mg/kg	10200	13100	10800	12200	19900	10000	11500	10600
Total (Dry Wt) Sodium (Na)	10	mg/kg	5960	5300	5220	4750	7450	4580	5020	3340

Table B-11: Dry weight metal concentrations of Walleye liver tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
			PineR-GN1	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN6	PineR-GN3
			WA9	WA10	WA11	WA12	WA13	WA14	WA15
			WA-9 LIVER	WA-10 LIVER	WA-11 LIVER	WA-12 LIVER	WA-13 LIVER	WA-14 LIVER	WA-15 LIVER
Total (Dry Wt) Aluminum (Al)	1.0	mg/kg	2.20	2.75	2.00	4.15	1.87	1.9	1.25
Total (Dry Wt) Antimony (Sb)	0.0050	mg/kg	<0.0044	<0.0037	<0.0044	<0.0041	<0.0039	<0.0056	<0.0039
Total (Dry Wt) Arsenic (As)	0.020	mg/kg	0.139	0.128	0.248	0.279	0.392	0.205	0.219
Total (Dry Wt) Barium (Ba)	0.050	mg/kg	<0.044	0.044	<0.044	0.061	0.064	0.067	0.044
Total (Dry Wt) Beryllium (Be)	0.0050	mg/kg	<0.0044	<0.0037	<0.0044	<0.0041	<0.0039	<0.0056	<0.0039
Total (Dry Wt) Bismuth (Bi)	0.0050	mg/kg	<0.0044	<0.0037	0.0068	0.0093	0.0040	0.0073	0.0057
Total (Dry Wt) Boron (B)	1.0	mg/kg	<0.89	<0.73	<0.89	<0.82	<0.77	<1.1	<0.78
Total (Dry Wt) Cadmium (Cd)	0.0050	mg/kg	0.351	0.714	0.401	2.18	0.417	0.665	0.670
Total (Dry Wt) Cesium (Cs)	0.0050	mg/kg	0.0352	0.0310	0.0312	0.0236	0.0271	0.0399	0.0365
Total (Dry Wt) Chromium (Cr)	0.050	mg/kg	<0.044	<0.037	<0.044	<0.041	0.054	<0.056	<0.039
Total (Dry Wt) Cobalt (Co)	0.0062	mg/kg	0.540	0.674	0.585	1.68	0.710	0.420	0.294
Total (Dry Wt) Copper (Cu)	0.050	mg/kg	5.38	5.82	6.38	7.47	5.52	7.28	6.45
Total (Dry Wt) Iron (Fe)	1.2	mg/kg	694	279	824	675	532	634	578
Total (Dry Wt) Lithium (Li)	0.50	mg/kg	<0.44	<0.37	<0.44	<0.41	<0.39	<0.56	<0.39
Total (Dry Wt) Manganese (Mn)	0.050	mg/kg	4.30	4.99	4.52	6.24	4.05	6.15	8.09
Total (Dry Wt) Mercury (Hg)	0.010	mg/kg	0.493	0.357	0.433	1.29	0.376	0.548	0.538
Total (Dry Wt) Molybdenum (Mo)	0.020	mg/kg	0.505	0.413	0.461	0.575	0.615	0.775	0.427
Total (Dry Wt) Nickel (Ni)	0.050	mg/kg	0.071	0.047	0.074	0.111	0.081	0.091	0.051
Total (Dry Wt) Phosphorus (P)	10	mg/kg	11300	10100	11300	12600	11500	15400	13900
Total (Dry Wt) Rubidium (Rb)	0.050	mg/kg	35.6	44.5	33.3	25.3	27.6	45.4	45.6
Total (Dry Wt) Selenium (Se)	0.050	mg/kg	3.52	3.29	3.94	4.90	3.32	4.84	3.52
Total (Dry Wt) Silver (Ag)	0.0050	mg/kg	<0.0044	<0.0037	<0.0044	<0.0041	<0.0039	<0.0056	<0.0039
Total (Dry Wt) Strontium (Sr)	0.050	mg/kg	0.169	0.219	0.188	0.254	0.244	0.291	0.286
Total (Dry Wt) Tellurium (Te)	0.020	mg/kg	<0.018	<0.015	<0.018	0.028	<0.015	<0.022	<0.016
Total (Dry Wt) Thallium (Tl)	0.0020	mg/kg	0.0336	0.0616	0.0357	0.0442	0.0344	0.0593	0.0450
Total (Dry Wt) Tin (Sn)	0.10	mg/kg	<0.089	0.091	<0.089	0.091	0.093	<0.11	0.087
Total (Dry Wt) Titanium (Ti)	0.10	mg/kg	0.765	0.701	0.524	0.575	0.638	0.70	0.691
Total (Dry Wt) Uranium (U)	0.0020	mg/kg	<0.0018	0.0015	<0.0018	0.0039	<0.0015	<0.0022	<0.0016
Total (Dry Wt) Vanadium (V)	0.10	mg/kg	<0.089	<0.073	<0.089	0.192	<0.077	<0.11	<0.078
Total (Dry Wt) Zinc (Zn)	0.20	mg/kg	72.6	64.3	74.8	77.5	73.1	89.0	79.1
Total (Dry Wt) Zirconium (Zr)	0.20	mg/kg	<0.18	<0.15	<0.18	<0.16	<0.15	<0.22	<0.16
Total (Dry Wt) Calcium (Ca)	10	mg/kg	319	461	335	481	429	616	509
Total (Dry Wt) Magnesium (Mg)	2.0	mg/kg	682	593	709	778	711	974	803
Total (Dry Wt) Potassium (K)	10	mg/kg	13600	10400	12400	12000	11500	15000	13000
Total (Dry Wt) Sodium (Na)	10	mg/kg	4770	4470	5600	5620	4400	5930	4540

Table B-12: Dry weight metal concentrations of Walleye gonad tissue caught in Pinewood River, 2020.

Metals	Lowest Detection Limit	Units	10-Sep-20	10-Sep-20	09-Sep-20	09-Sep-20	10-Sep-20	10-Sep-20	10-Sep-20	09-Sep-20
			PineR-GN4	PineR-GN7	PineR-GN2	PineR-GN2	PineR-GN1	PineR-GN6	PineR-GN6	PineR-GN3
			WA2	WA5	WA6	WA7	WA9	WA11	WA13	WA15
			WA-2- GONAD	WA-5- GONAD	WA-6- GONAD	WA-7- GONAD	WA-9- GONAD	WA-11-GONAD	WA-13-GONAD	WA-15-GONAD
Total (Dry Wt) Aluminum (Al)	1.0	mg/kg	10.8	21.8	2.64	34.6	4.92	5.4	9.8	1.15
Total (Dry Wt) Antimony (Sb)	0.0050	mg/kg	<0.0085	<0.0089	<0.0035	<0.0082	<0.0045	<0.0090	<0.0082	<0.0033
Total (Dry Wt) Arsenic (As)	0.020	mg/kg	0.262	0.187	0.048	0.255	0.115	0.099	0.193	0.107
Total (Dry Wt) Barium (Ba)	0.050	mg/kg	0.220	0.354	0.113	0.262	0.108	0.062	0.242	0.100
Total (Dry Wt) Beryllium (Be)	0.0050	mg/kg	<0.0085	<0.0089	<0.0035	<0.0082	<0.0045	<0.0090	<0.0082	<0.0033
Total (Dry Wt) Bismuth (Bi)	0.0050	mg/kg	0.0066	0.0081	0.0112	0.0080	<0.0045	0.0064	0.0085	<0.0033
Total (Dry Wt) Boron (B)	1.0	mg/kg	<0.85	<0.89	<0.70	<0.82	8.79	<0.90	<0.82	<0.67
Total (Dry Wt) Cadmium (Cd)	0.0050	mg/kg	0.0288	0.0230	0.0333	0.0486	0.0108	0.0170	0.0230	0.0117
Total (Dry Wt) Cesium (Cs)	0.0050	mg/kg	0.0764	0.0811	0.0421	0.0748	0.0685	0.0865	0.0543	0.0443
Total (Dry Wt) Chromium (Cr)	0.050	mg/kg	0.26	0.29	<0.035	0.46	0.050	0.13	0.32	<0.033
Total (Dry Wt) Cobalt (Co)	0.0062	mg/kg	0.402	0.283	0.120	0.209	0.0388	0.555	0.198	0.186
Total (Dry Wt) Copper (Cu)	0.050	mg/kg	4.77	4.03	2.43	4.39	1.91	3.90	3.51	3.37
Total (Dry Wt) Iron (Fe)	1.2	mg/kg	230	111	76.1	146	110	156	139	65.9
Total (Dry Wt) Lithium (Li)	0.50	mg/kg	<0.43	<0.44	<0.35	<0.41	<0.45	<0.45	<0.41	<0.33
Total (Dry Wt) Manganese (Mn)	0.050	mg/kg	2.46	2.61	7.32	2.44	2.30	1.24	2.70	13.8
Total (Dry Wt) Mercury (Hg)	0.010	mg/kg	0.283	0.253	1.60	0.278	0.306	0.296	0.396	0.138
Total (Dry Wt) Molybdenum (Mo)	0.020	mg/kg	0.089	0.076	0.033	0.063	0.019	0.075	0.078	0.048
Total (Dry Wt) Nickel (Ni)	0.050	mg/kg	0.666	0.186	0.041	0.181	0.085	0.056	0.134	0.035
Total (Dry Wt) Phosphorus (P)	10	mg/kg	25900	25800	8920	24500	23800	28200	23800	11100
Total (Dry Wt) Rubidium (Rb)	0.050	mg/kg	77.3	67.0	25.5	70.2	66.8	85.2	53.9	37.9
Total (Dry Wt) Selenium (Se)	0.050	mg/kg	7.01	5.96	2.05	5.02	2.17	5.55	6.85	3.14
Total (Dry Wt) Silver (Ag)	0.0050	mg/kg	<0.0053	<0.0056	<0.0035	<0.0051	<0.0045	<0.0056	<0.0051	<0.0033
Total (Dry Wt) Strontium (Sr)	0.050	mg/kg	0.724	0.434	0.187	0.482	0.225	0.336	1.00	0.231
Total (Dry Wt) Tellurium (Te)	0.020	mg/kg	<0.017	<0.018	<0.014	<0.016	<0.018	<0.018	<0.016	<0.013
Total (Dry Wt) Thallium (Tl)	0.0020	mg/kg	0.0562	0.0500	0.0173	0.0422	0.0552	0.0505	0.0338	0.0238
Total (Dry Wt) Tin (Sn)	0.10	mg/kg	<0.085	<0.089	0.090	<0.082	<0.090	<0.090	<0.082	<0.067
Total (Dry Wt) Titanium (Ti)	0.10	mg/kg	2.16	2.42	0.513	3.27	1.25	2.17	2.26	0.552
Total (Dry Wt) Uranium (U)	0.0020	mg/kg	<0.0017	<0.0018	<0.0014	<0.0016	0.0028	<0.0018	<0.0016	<0.0013
Total (Dry Wt) Vanadium (V)	0.10	mg/kg	<0.085	<0.089	<0.070	<0.082	<0.090	<0.090	<0.082	<0.067
Total (Dry Wt) Zinc (Zn)	0.20	mg/kg	987	1030	73.8	937	91.7	928	870	133
Total (Dry Wt) Zirconium (Zr)	0.20	mg/kg	<0.17	<0.18	<0.14	<0.16	<0.18	<0.18	<0.16	<0.13
Total (Dry Wt) Calcium (Ca)	10	mg/kg	905	696	832	712	250	512	1610	964
Total (Dry Wt) Magnesium (Mg)	2.0	mg/kg	1610	1740	966	1660	1160	1460	1510	1150
Total (Dry Wt) Potassium (K)	10	mg/kg	30100	29200	8680	26100	23900	32800	24500	11800
Total (Dry Wt) Sodium (Na)	10	mg/kg	3450	4540	4210	3340	3880	2790	2580	2630

Your Project #: 20-2713
Site Location: 2020 AQUATIC STUDY

Attention: Joe Tetreault

EcoMetrix Incorporated
6800 Campobello Rd
Mississauga, ON
CANADA L5N 2L8

Your C.O.C. #: 792731-01-01, 792731-02-01, 792731-03-01, 792731-05-01, 792731-06-01, 792731-07-01, 792731-08-01, 792731-09-01

Report Date: 2021/02/03
Report #: R6503791
Version: 2 - Revision

CERTIFICATE OF ANALYSIS – REVISED REPORT

BV LABS JOB #: C0N7925
Received: 2020/09/14, 15:15

Sample Matrix: Tissue
Samples Received: 73

Analyses	Quantity	Date Extracted	Date Analyzed	Laboratory Method	Analytical Method
Elements by CRC ICPMS - Tissue Dry Calc (1)	20	N/A	2020/10/20	BBY WI-00033	Auto Calc.
Elements by CRC ICPMS - Tissue Dry Calc (1)	53	N/A	2020/10/21	BBY WI-00033	Auto Calc.
Elements by ICPMS - Tissue Plug Wet Wt (1)	5	2020/10/16	2020/10/17	BBY WI-00033	Auto calc
Elements by CRC ICPMS - Tissue Wet Wt (1)	8	2020/10/15	2020/10/15	BBY7SOP00021/ BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS - Tissue Wet Wt (1)	26	2020/10/09	2020/10/10	BBY7SOP00021/ BBY7SOP-00002	EPA 6020b R2 m
Elements by CRC ICPMS - Tissue Wet Wt (1)	34	2020/10/09	2020/10/11	BBY7SOP00021/ BBY7SOP-00002	EPA 6020b R2 m
Moisture in Tissue (1, 2)	5	2020/10/14	2020/10/17		
Moisture in Tissue (Subcontracted) (1, 2)	68	2020/10/02	2020/10/03		

Reference Method suffix "m" indicates test methods incorporate validated modifications from specific reference methods to improve performance.
(1) This test was perfor
(2) Offsite analysis requ

<original signed by>

Encryption Key

Please direct all questio
Kyle Reinhart, CET LEAD-Air Toxics, Source Evaluation
Email: Kyle.Reinhart@bureauveritas.com
Phone# (905)817-5802

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BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports. For Service Group specific validation please refer to the Validation Signature Page.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV035			NPV036	NPV037		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01			792731-01-01	792731-01-01		
	UNITS	**WA-1 L.TISSUE**	**RDL**	**QC Batch**	**WA-2 L.TISSUE**	**WA-3 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.25	0.20	7012814	0.27	0.85	0.20	7012814
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Arsenic (As)	mg/kg	0.0683	0.0040	7012814	0.0674	0.0767	0.0040	7012814
Total (Wet Wt) Barium (Ba)	mg/kg	0.011	0.010	7012814	<0.010	0.037	0.010	7012814
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0032	0.0010	7012814	0.0015	0.0038	0.0010	7012814
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	7012814	<0.20	<0.20	0.20	7012814
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0013	0.0010	7012814	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Calcium (Ca)	mg/kg	129	2.0	7012814	121	469	2.0	7012814
Total (Wet Wt) Cesium (Cs)	mg/kg	0.0160	0.0010	7012814				
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	0.010	7012814	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0017	0.0013	7012814	0.0014	<0.0013	0.0013	7012814
Total (Wet Wt) Copper (Cu)	mg/kg	0.121	0.010	7012814	0.109	0.101	0.010	7012814
Total (Wet Wt) Iron (Fe)	mg/kg	1.82	0.25	7012814	1.46	1.37	0.25	7012814
Total (Wet Wt) Lead (Pb)	mg/kg	0.0346 (1)	0.0010	7012814	0.0316 (1)	0.0327 (1)	0.0010	7012814
Total (Wet Wt) Lithium (Li)	mg/kg	<0.10	0.10	7012814				
Total (Wet Wt) Magnesium (Mg)	mg/kg	377	0.40	7012814	305	289	0.40	7012814
Total (Wet Wt) Manganese (Mn)	mg/kg	0.123	0.010	7012814	0.093	0.081	0.010	7012814
Total (Wet Wt) Mercury (Hg)	mg/kg	0.866 (2)	0.0020	7012814	0.361	0.353	0.0020	7012814
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	0.0040	7012814	<0.0040	<0.0040	0.0040	7012814
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	0.010	7012814	<0.010	0.019	0.010	7012814
Total (Wet Wt) Phosphorus (P)	mg/kg	2920	2.0	7012814	2370	2370	2.0	7012814
Total (Wet Wt) Potassium (K)	mg/kg	5460	2.0	7012814	4500	4080	2.0	7012814
Total (Wet Wt) Rubidium (Rb)	mg/kg	12.4	0.010	7012814				
Total (Wet Wt) Selenium (Se)	mg/kg	0.296	0.010	7012814	0.245	0.153	0.010	7012814
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Sodium (Na)	mg/kg	271	2.0	7012814	389	275	2.0	7012814
Total (Wet Wt) Strontium (Sr)	mg/kg	0.018	0.010	7012814	0.015	0.200 (3)	0.010	7012814

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".
(2) RDL raised due to concentration over linear range, sample dilution required.
(3) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV035			NPV036	NPV037		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01			792731-01-01	792731-01-01		
	UNITS	**WA-1 L.TISSUE**	**RDL**	**QC Batch**	**WA-2 L.TISSUE**	**WA-3 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Tellurium (Te)	mg/kg	<0.0040	0.0040	7012814				
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00386	0.00040	7012814	0.00374	0.00367	0.00040	7012814
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	7012814	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Titanium (Ti)	mg/kg	0.194	0.020	7012814	0.170	0.157	0.020	7012814
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00040	7012814	<0.00040	<0.00040	0.00040	7012814
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	0.020	7012814	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Zinc (Zn)	mg/kg	3.05	0.040	7012814	3.00	2.94	0.040	7012814
Total (Wet Wt) Zirconium (Zr)	mg/kg	<0.040	0.040	7012814				
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	80	0.30	7012812	80	81	0.30	7012812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV037			NPV038	NPV039	NPV040		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01			792731-01-01	792731-01-01	792731-01-01		
	UNITS	**WA-3 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**	**WA-4 L.TISSUE**	**WA-5 L.TISSUE**	**WA-6 L.TISSUE**	**RDL**	**QC Batch**
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	0.46	0.20	7012814	0.33	0.48	1.21	0.20	7012814
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Arsenic (As)	mg/kg	0.0739	0.0040	7012814	0.0578	0.0475	0.118	0.0040	7012814
Total (Wet Wt) Barium (Ba)	mg/kg	0.054	0.010	7012814	<0.010	<0.010	0.014	0.010	7012814
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0038	0.0010	7012814	0.0013	0.0018	0.0054	0.0010	7012814
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	7012814	<0.20	<0.20	<0.20	0.20	7012814
Total (Wet Wt) Cadmium (Cd)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Calcium (Ca)	mg/kg	866	2.0	7012814	133	140	93.2	2.0	7012814
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	0.010	7012814	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Cobalt (Co)	mg/kg	<0.0013	0.0013	7012814	0.0013	0.0013	<0.0013	0.0013	7012814
Total (Wet Wt) Copper (Cu)	mg/kg	0.098	0.010	7012814	0.109	0.110	0.088	0.010	7012814
Total (Wet Wt) Iron (Fe)	mg/kg	1.49	0.25	7012814	1.58	1.38	2.15	0.25	7012814
Total (Wet Wt) Lead (Pb)	mg/kg	0.0314 (1)	0.0010	7012814	0.0336 (1)	0.0329 (1)	0.0329 (1)	0.0010	7012814
Total (Wet Wt) Magnesium (Mg)	mg/kg	289	0.40	7012814	304	321	306	0.40	7012814
Total (Wet Wt) Manganese (Mn)	mg/kg	0.095	0.010	7012814	0.130	0.132	0.076	0.010	7012814
Total (Wet Wt) Mercury (Hg)	mg/kg	0.355	0.0020	7012814	0.321	0.294	1.75 (2)	0.0020	7012814
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	0.0040	7012814	<0.0040	<0.0040	<0.0040	0.0040	7012814
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	0.010	7012814	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Phosphorus (P)	mg/kg	2600	2.0	7012814	2360	2420	2440	2.0	7012814
Total (Wet Wt) Potassium (K)	mg/kg	3980	2.0	7012814	4490	4670	4360	2.0	7012814
Total (Wet Wt) Selenium (Se)	mg/kg	0.154	0.010	7012814	0.243	0.204	0.227	0.010	7012814
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	0.0010	7012814	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Sodium (Na)	mg/kg	273	2.0	7012814	280	230	306	2.0	7012814
Total (Wet Wt) Strontium (Sr)	mg/kg	0.396 (3)	0.010	7012814	0.018	0.025	0.023	0.010	7012814
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00370	0.00040	7012814	0.00427	0.00371	0.00325	0.00040	7012814

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".
(2) RDL raised due to concentration over linear range, sample dilution required.
(3) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV037			NPV038	NPV039	NPV040		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01			792731-01-01	792731-01-01	792731-01-01		
	UNITS	**WA-3 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**	**WA-4 L.TISSUE**	**WA-5 L.TISSUE**	**WA-6 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	7012814	<0.020	0.052	<0.020	0.020	7012814
Total (Wet Wt) Titanium (Ti)	mg/kg	0.169	0.020	7012814	0.155	0.169	0.187	0.020	7012814
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00040	7012814	<0.00040	<0.00040	<0.00040	0.00040	7012814
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	0.020	7012814	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Zinc (Zn)	mg/kg	3.04	0.040	7012814	3.06	3.07	2.76	0.040	7012814
PHYSICAL PROPERTIES									
Moisture-Subcontracted	%				81	79	80	0.30	7012812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV041	NPV042	NPV043	NPV044	NPV045		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01	792731-01-01	792731-01-01	792731-01-01	792731-02-01		
	UNITS	**WA-7 L.TISSUE**	**WA-8 L.TISSUE**	**WA-9 L.TISSUE**	**WA-10 L.TISSUE**	**WA-11 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	1.36	0.54	1.92	0.61	0.23	0.20	7012814
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Arsenic (As)	mg/kg	0.0519	0.0419	0.0425	0.0310	0.0300	0.0040	7012814
Total (Wet Wt) Barium (Ba)	mg/kg	0.013	0.012	0.018	0.013	<0.010	0.010	7012814
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0020	0.0026	0.0021	<0.0010	0.0025	0.0010	7012814
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012814
Total (Wet Wt) Cadmium (Cd)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Calcium (Ca)	mg/kg	125	197	122	162	194	2.0	7012814
Total (Wet Wt) Chromium (Cr)	mg/kg	0.016	<0.010	0.010	<0.010	0.037	0.010	7012814
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0020	<0.0013	0.0020	<0.0013	<0.0013	0.0013	7012814
Total (Wet Wt) Copper (Cu)	mg/kg	0.118	0.107	0.103	0.103	0.114	0.010	7012814
Total (Wet Wt) Iron (Fe)	mg/kg	2.13	1.65	3.17	1.44	1.52	0.25	7012814
Total (Wet Wt) Lead (Pb)	mg/kg	0.0332 (1)	0.0323 (1)	0.0319 (1)	0.0325 (1)	0.0325 (1)	0.0010	7012814
Total (Wet Wt) Magnesium (Mg)	mg/kg	330	316	311	324	323	0.40	7012814
Total (Wet Wt) Manganese (Mn)	mg/kg	0.136	0.122	0.156	0.099	0.104	0.010	7012814
Total (Wet Wt) Mercury (Hg)	mg/kg	0.266	0.512	0.422	0.247	0.386	0.0020	7012814
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	7012814
Total (Wet Wt) Nickel (Ni)	mg/kg	0.041	<0.010	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Phosphorus (P)	mg/kg	2590	2340	2400	2540	2540	2.0	7012814
Total (Wet Wt) Potassium (K)	mg/kg	4880	4300	4510	4570	4830	2.0	7012814
Total (Wet Wt) Selenium (Se)	mg/kg	0.237	0.225	0.238	0.192	0.222	0.010	7012814
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Sodium (Na)	mg/kg	299	464	435	348	421	2.0	7012814
Total (Wet Wt) Strontium (Sr)	mg/kg	0.019	0.042	0.020	0.037	0.045	0.010	7012814
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00360	0.00360	0.00285	0.00423	0.00355	0.00040	7012814
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Titanium (Ti)	mg/kg	0.217	0.178	0.208	0.181	0.177	0.020	7012814
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	7012814
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012814

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV041	NPV042	NPV043	NPV044	NPV045		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-01-01	792731-01-01	792731-01-01	792731-01-01	792731-02-01		
	UNITS	**WA-7 L.TISSUE**	**WA-8 L.TISSUE**	**WA-9 L.TISSUE**	**WA-10 L.TISSUE**	**WA-11 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Zinc (Zn)	mg/kg	3.17	3.02	2.78	2.73	3.00	0.040	7012814
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	80	81	80	80	80	0.30	7012812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV046	NPV047	NPV048	NPV049	NPV050		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-02-01	792731-02-01	792731-02-01	792731-02-01	792731-02-01		
	UNITS	**WA-12 L.TISSUE**	**WA-13 L.TISSUE**	**WA-14 L.TISSUE**	**WA-15 L.TISSUE**	**NP-1 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	4.00	0.29	<0.20	0.23	0.32	0.20	7012814
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Arsenic (As)	mg/kg	0.152	0.0414	0.0391	0.0344	0.0675	0.0040	7012814
Total (Wet Wt) Barium (Ba)	mg/kg	0.016	<0.010	<0.010	0.016	0.100	0.010	7012814
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0023	0.0019	0.0018	0.0020	0.0034	0.0010	7012814
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012814
Total (Wet Wt) Cadmium (Cd)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Calcium (Ca)	mg/kg	241	195	160	412	1050	2.0	7012814
Total (Wet Wt) Chromium (Cr)	mg/kg	0.011	<0.010	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0015	<0.0013	0.0013	<0.0013	0.0030	0.0013	7012814
Total (Wet Wt) Copper (Cu)	mg/kg	0.106	0.101	0.107	0.113	0.090	0.010	7012814
Total (Wet Wt) Iron (Fe)	mg/kg	1.52	1.13	0.84	1.40	1.78	0.25	7012814
Total (Wet Wt) Lead (Pb)	mg/kg	0.0293 (1)	0.0308 (1)	0.0286 (1)	0.0340 (1)	0.0317 (1)	0.0010	7012814
Total (Wet Wt) Magnesium (Mg)	mg/kg	303	302	285	311	336	0.40	7012814
Total (Wet Wt) Manganese (Mn)	mg/kg	0.092	0.114	0.108	0.120	0.801	0.010	7012814
Total (Wet Wt) Mercury (Hg)	mg/kg	0.668 (2)	0.241	0.264	0.385	0.549 (2)	0.0020	7012814
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	7012814
Total (Wet Wt) Nickel (Ni)	mg/kg	0.144	0.014	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Phosphorus (P)	mg/kg	2400	2360	2230	2530	2860	2.0	7012814
Total (Wet Wt) Potassium (K)	mg/kg	4200	4340	4000	4490	4110	2.0	7012814
Total (Wet Wt) Selenium (Se)	mg/kg	0.251	0.233	0.216	0.204	0.187	0.010	7012814
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Sodium (Na)	mg/kg	324	402	405	295	373	2.0	7012814
Total (Wet Wt) Strontium (Sr)	mg/kg	0.079	0.044	0.032	0.131	0.530	0.010	7012814
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00404	0.00331	0.00376	0.00335	0.00203	0.00040	7012814
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Titanium (Ti)	mg/kg	0.175	0.163	0.153	0.175	0.202	0.020	7012814
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	7012814

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV046	NPV047	NPV048	NPV049	NPV050		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-02-01	792731-02-01	792731-02-01	792731-02-01	792731-02-01		
	UNITS	**WA-12 L.TISSUE**	**WA-13 L.TISSUE**	**WA-14 L.TISSUE**	**WA-15 L.TISSUE**	**NP-1 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Zinc (Zn)	mg/kg	2.72	3.09	2.76	2.98	4.64	0.040	7012814
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	79	81	82	79	81	0.30	7012812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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EcoMetrix Incorporated
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RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV051	NPV052	NPV053	NPV054		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-02-01	792731-02-01	792731-02-01	792731-02-01		
	UNITS	**NP-2 L.TISSUE**	**NP-3 L.TISSUE**	**NP-4 L.TISSUE**	**NP-5 L.TISSUE**	**RDL**	**QC Batch**
Metals							
Total (Wet Wt) Aluminum (Al)	mg/kg	0.21	0.27	0.93	0.50	0.20	7012814
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Arsenic (As)	mg/kg	0.115	0.0863	0.119	0.0456	0.0040	7012814
Total (Wet Wt) Barium (Ba)	mg/kg	0.037	0.083	0.098	0.038	0.010	7012814
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0024	0.0031	0.0027	0.0021	0.0010	7012814
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	0.20	7012814
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0014	0.0019	0.0012	0.0013	0.0010	7012814
Total (Wet Wt) Calcium (Ca)	mg/kg	597	596	541	410	2.0	7012814
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	<0.010	0.011	<0.010	0.010	7012814
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0023	0.0035	0.0038	0.0034	0.0013	7012814
Total (Wet Wt) Copper (Cu)	mg/kg	0.097	0.098	0.120	0.101	0.010	7012814
Total (Wet Wt) Iron (Fe)	mg/kg	1.26	1.80	2.68	2.15	0.25	7012814
Total (Wet Wt) Lead (Pb)	mg/kg	0.0312 (1)	0.0327 (1)	0.0316 (1)	0.0319 (1)	0.0010	7012814
Total (Wet Wt) Magnesium (Mg)	mg/kg	317	318	300	279	0.40	7012814
Total (Wet Wt) Manganese (Mn)	mg/kg	0.380	0.680	0.492	0.403	0.010	7012814
Total (Wet Wt) Mercury (Hg)	mg/kg	0.486 (2)	0.702 (2)	0.301	0.568 (2)	0.0020	7012814
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	<0.0040	<0.0040	<0.0040	0.0040	7012814
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	<0.010	<0.010	<0.010	0.010	7012814
Total (Wet Wt) Phosphorus (P)	mg/kg	2720	2450	2490	2330	2.0	7012814
Total (Wet Wt) Potassium (K)	mg/kg	4280	3820	4070	3840	2.0	7012814
Total (Wet Wt) Selenium (Se)	mg/kg	0.194	0.182	0.203	0.166	0.010	7012814
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012814
Total (Wet Wt) Sodium (Na)	mg/kg	466	439	247	347	2.0	7012814
Total (Wet Wt) Strontium (Sr)	mg/kg	0.253	0.295	0.252	0.178	0.010	7012814
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00271	0.00177	0.00214	0.00180	0.00040	7012814
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Titanium (Ti)	mg/kg	0.194	0.177	0.190	0.155	0.020	7012814
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	7012814

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".
(2) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV051	NPV052	NPV053	NPV054		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-02-01	792731-02-01	792731-02-01	792731-02-01		
	UNITS	**NP-2 L.TISSUE**	**NP-3 L.TISSUE**	**NP-4 L.TISSUE**	**NP-5 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	0.020	7012814
Total (Wet Wt) Zinc (Zn)	mg/kg	4.52	4.35	4.82	4.31	0.040	7012814
PHYSICAL PROPERTIES							
Moisture-Subcontracted	%	81	82	80	81	0.30	7012812

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV054			NPV055			NPV055		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-02-01			792731-03-01			792731-03-01		
	UNITS	**NP-5 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**	**NP-6 L.TISSUE**	**RDL**	**QC Batch**	**NP-6 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**
Metals										
Total (Wet Wt) Aluminum (Al)	mg/kg				2.22	0.20	7012818			
Total (Wet Wt) Antimony (Sb)	mg/kg				<0.0010	0.0010	7012818			
Total (Wet Wt) Arsenic (As)	mg/kg				0.0672	0.0040	7012818			
Total (Wet Wt) Barium (Ba)	mg/kg				0.090	0.010	7012818			
Total (Wet Wt) Beryllium (Be)	mg/kg				<0.0010	0.0010	7012818			
Total (Wet Wt) Bismuth (Bi)	mg/kg				0.0021	0.0010	7012818			
Total (Wet Wt) Boron (B)	mg/kg				<0.20	0.20	7012818			
Total (Wet Wt) Cadmium (Cd)	mg/kg				0.0010	0.0010	7012818			
Total (Wet Wt) Calcium (Ca)	mg/kg				951	2.0	7012818			
Total (Wet Wt) Chromium (Cr)	mg/kg				<0.010	0.010	7012818			
Total (Wet Wt) Cobalt (Co)	mg/kg				0.0036	0.0013	7012818			
Total (Wet Wt) Copper (Cu)	mg/kg				0.112	0.010	7012818			
Total (Wet Wt) Iron (Fe)	mg/kg				2.38	0.25	7012818			
Total (Wet Wt) Lead (Pb)	mg/kg				0.0319 (1)	0.0010	7012818			
Total (Wet Wt) Magnesium (Mg)	mg/kg				324	0.40	7012818			
Total (Wet Wt) Manganese (Mn)	mg/kg				0.999	0.010	7012818			
Total (Wet Wt) Mercury (Hg)	mg/kg				0.275	0.0020	7012818			
Total (Wet Wt) Molybdenum (Mo)	mg/kg				<0.0040	0.0040	7012818			
Total (Wet Wt) Nickel (Ni)	mg/kg				<0.010	0.010	7012818			
Total (Wet Wt) Phosphorus (P)	mg/kg				2710	2.0	7012818			
Total (Wet Wt) Potassium (K)	mg/kg				3920	2.0	7012818			
Total (Wet Wt) Selenium (Se)	mg/kg				0.166	0.010	7012818			
Total (Wet Wt) Silver (Ag)	mg/kg				<0.0010	0.0010	7012818			
Total (Wet Wt) Sodium (Na)	mg/kg				440	2.0	7012818			
Total (Wet Wt) Strontium (Sr)	mg/kg				0.539	0.010	7012818			
Total (Wet Wt) Thallium (Tl)	mg/kg				0.00223	0.00040	7012818			
Total (Wet Wt) Tin (Sn)	mg/kg				<0.020	0.020	7012818			
Total (Wet Wt) Titanium (Ti)	mg/kg				0.189	0.020	7012818			
Total (Wet Wt) Uranium (U)	mg/kg				0.00047	0.00040	7012818			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV054			NPV055			NPV055		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-02-01			792731-03-01			792731-03-01		
	UNITS	**NP-5 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**	**NP-6 L.TISSUE**	**RDL**	**QC Batch**	**NP-6 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg				<0.020	0.020	7012818			
Total (Wet Wt) Zinc (Zn)	mg/kg				4.44	0.040	7012818			
PHYSICAL PROPERTIES										
Moisture-Subcontracted	%	81	0.30	7012812	80	0.30	7012817	82	0.30	7012817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV056	NPV057			NPV057		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01			792731-03-01		
	UNITS	**NP-7 L.TISSUE**	**NP-8 L.TISSUE**	**RDL**	**QC Batch**	**NP-8 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	2.72	1.33 (1)	0.20	7012818	0.62 (2)	0.20	7012818
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	0.0010	7012818
Total (Wet Wt) Arsenic (As)	mg/kg	0.107	0.102	0.0040	7012818	0.104	0.0040	7012818
Total (Wet Wt) Barium (Ba)	mg/kg	0.043	0.121 (1)	0.010	7012818	0.235 (2)	0.010	7012818
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	0.0010	7012818
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0030	0.0034	0.0010	7012818	0.0034	0.0010	7012818
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	0.20	7012818	<0.20	0.20	7012818
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0014	0.0015	0.0010	7012818	0.0012	0.0010	7012818
Total (Wet Wt) Calcium (Ca)	mg/kg	390	864	2.0	7012818	1610	2.0	7012818
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	<0.010	0.010	7012818	<0.010	0.010	7012818
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0030	0.0035	0.0013	7012818	0.0034	0.0013	7012818
Total (Wet Wt) Copper (Cu)	mg/kg	0.122	0.116	0.010	7012818	0.095	0.010	7012818
Total (Wet Wt) Iron (Fe)	mg/kg	2.32	2.53	0.25	7012818	2.44	0.25	7012818
Total (Wet Wt) Lead (Pb)	mg/kg	0.0307 (3)	0.0343 (3)	0.0010	7012818	0.0343 (3)	0.0010	7012818
Total (Wet Wt) Magnesium (Mg)	mg/kg	306	308	0.40	7012818	337	0.40	7012818
Total (Wet Wt) Manganese (Mn)	mg/kg	0.403	0.919 (1)	0.010	7012818	1.87 (2)	0.010	7012818
Total (Wet Wt) Mercury (Hg)	mg/kg	0.419	0.548 (4)	0.0020	7012818	0.548 (4)	0.0020	7012818
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	<0.0040	0.0040	7012818	<0.0040	0.0040	7012818
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	<0.010	0.010	7012818	<0.010	0.010	7012818
Total (Wet Wt) Phosphorus (P)	mg/kg	2480	2520	2.0	7012818	3040	2.0	7012818
Total (Wet Wt) Potassium (K)	mg/kg	4220	3820	2.0	7012818	3970	2.0	7012818
Total (Wet Wt) Selenium (Se)	mg/kg	0.182	0.180	0.010	7012818	0.178	0.010	7012818
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	0.0010	7012818
Total (Wet Wt) Sodium (Na)	mg/kg	244	266	2.0	7012818	280	2.0	7012818
Total (Wet Wt) Strontium (Sr)	mg/kg	0.198	0.503 (1)	0.010	7012818	0.986 (2)	0.010	7012818

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

Lab-Dup = Laboratory Initiated Duplicate

(1) Duplicate RPD above control limit - Non-homogenous sample. Re-analysis yields similar results.

(2) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(3) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(4) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV056	NPV057			NPV057		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01			792731-03-01		
	UNITS	**NP-7 L.TISSUE**	**NP-8 L.TISSUE**	**RDL**	**QC Batch**	**NP-8 L.TISSUE Lab-Dup**	**RDL**	**QC Batch**
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00334	0.00180	0.00040	7012818	0.00198	0.00040	7012818
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	0.020	7012818	<0.020	0.020	7012818
Total (Wet Wt) Titanium (Ti)	mg/kg	0.189	0.170	0.020	7012818	0.228	0.020	7012818
Total (Wet Wt) Uranium (U)	mg/kg	0.00042	<0.00040	0.00040	7012818	<0.00040	0.00040	7012818
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.020	7012818	<0.020	0.020	7012818
Total (Wet Wt) Zinc (Zn)	mg/kg	5.79	4.37	0.040	7012818	4.36	0.040	7012818
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	80	82	0.30	7012817			

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
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EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV058	NPV059	NPV060	NPV061	NPV062		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01	792731-03-01	792731-03-01	792731-03-01		
	UNITS	**NP-9 L.TISSUE**	**NP-10 L.TISSUE**	**NP-11 L.TISSUE**	**NP-12 L.TISSUE**	**NP-13 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	1.39	1.44	0.40	1.27	0.24	0.20	7012818
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Arsenic (As)	mg/kg	0.0820	0.0789	0.0728	0.0482	0.0598	0.0040	7012818
Total (Wet Wt) Barium (Ba)	mg/kg	0.086	0.050	0.125	0.039	<0.010	0.010	7012818
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0028	0.0033	0.0032	0.0031	0.0030	0.0010	7012818
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012818
Total (Wet Wt) Cadmium (Cd)	mg/kg	<0.0010	<0.0010	0.0011	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Calcium (Ca)	mg/kg	718	563	1390	472	162	2.0	7012818
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	0.114	<0.010	<0.010	<0.010	0.010	7012818
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0044	0.0038	0.0028	0.0031	<0.0013	0.0013	7012818
Total (Wet Wt) Copper (Cu)	mg/kg	0.096	0.108	0.103	0.104	0.097	0.010	7012818
Total (Wet Wt) Iron (Fe)	mg/kg	2.59	3.57	1.44	2.76	1.05	0.25	7012818
Total (Wet Wt) Lead (Pb)	mg/kg	0.0307 (1)	0.0334 (1)	0.0298 (1)	0.0316 (1)	0.0314 (1)	0.0010	7012818
Total (Wet Wt) Magnesium (Mg)	mg/kg	302	314	338	317	310	0.40	7012818
Total (Wet Wt) Manganese (Mn)	mg/kg	0.706	0.561	1.11	0.524	0.126	0.010	7012818
Total (Wet Wt) Mercury (Hg)	mg/kg	0.395	0.417	0.707 (2)	0.400	0.386	0.0020	7012818
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	0.0050	<0.0040	<0.0040	<0.0040	0.0040	7012818
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7012818
Total (Wet Wt) Phosphorus (P)	mg/kg	2580	2520	3010	2390	2370	2.0	7012818
Total (Wet Wt) Potassium (K)	mg/kg	3990	4040	4130	3920	4140	2.0	7012818
Total (Wet Wt) Selenium (Se)	mg/kg	0.171	0.227	0.157	0.173	0.190	0.010	7012818
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Sodium (Na)	mg/kg	282	231	363	441	393	2.0	7012818
Total (Wet Wt) Strontium (Sr)	mg/kg	0.419	0.231	0.705	0.215	0.035	0.010	7012818
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00268	0.00274	0.00230	0.00192	0.00230	0.00040	7012818
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012818
Total (Wet Wt) Titanium (Ti)	mg/kg	0.234	0.212	0.220	0.190	0.161	0.020	7012818
Total (Wet Wt) Uranium (U)	mg/kg	0.00047	<0.00040	<0.00040	<0.00040	<0.00040	0.00040	7012818

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV058	NPV059	NPV060	NPV061	NPV062		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01	792731-03-01	792731-03-01	792731-03-01		
	UNITS	**NP-9 L.TISSUE**	**NP-10 L.TISSUE**	**NP-11 L.TISSUE**	**NP-12 L.TISSUE**	**NP-13 L.TISSUE**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012818
Total (Wet Wt) Zinc (Zn)	mg/kg	5.70	4.34	3.75	4.40	3.90	0.040	7012818
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	79	81	81	82	78	0.30	7012817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
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RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV063	NPV064	NPV065	NPV066	NPV067		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01	792731-05-01	792731-05-01	792731-05-01		
	UNITS	**NP-14 L.TISSUE**	**NP-15 L.TISSUE**	**WA-1 LIVER**	**WA-2 LIVER**	**WA-3 LIVER**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.35	0.79	0.89	0.34	0.75	0.20	7012818
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Arsenic (As)	mg/kg	0.132	0.0416	0.0349	0.0954	0.0426	0.0040	7012818
Total (Wet Wt) Barium (Ba)	mg/kg	0.058	0.082	0.010	0.034	0.022	0.010	7012818
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0032	0.0019	0.0018	0.0013	0.0046	0.0010	7012818
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012818
Total (Wet Wt) Cadmium (Cd)	mg/kg	<0.0010	0.0014	0.555	0.143	0.216	0.0010	7012818
Total (Wet Wt) Calcium (Ca)	mg/kg	568	797	89.7	141	206	2.0	7012818
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	<0.010	<0.010	<0.010	<0.010	0.010	7012818
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0027	0.0023	0.332	0.170	0.399	0.0013	7012818
Total (Wet Wt) Copper (Cu)	mg/kg	0.102	0.098	1.53	1.83	13.0	0.010	7012818
Total (Wet Wt) Iron (Fe)	mg/kg	1.36	1.35	213	171	122	0.25	7012818
Total (Wet Wt) Lead (Pb)	mg/kg	0.0328 (1)	0.0337 (1)	0.0337 (1)	0.0399 (1)	0.0335 (1)	0.0010	7012818
Total (Wet Wt) Magnesium (Mg)	mg/kg	302	291	149	168	172	0.40	7012818
Total (Wet Wt) Manganese (Mn)	mg/kg	0.913	0.874	0.825	1.51	1.09	0.010	7012818
Total (Wet Wt) Mercury (Hg)	mg/kg	0.441	0.567 (2)	0.208	0.126	0.180	0.0020	7012818
Total (Wet Wt) Molybdenum (Mo)	mg/kg	<0.0040	<0.0040	0.105	0.173	0.119	0.0040	7012818
Total (Wet Wt) Nickel (Ni)	mg/kg	<0.010	<0.010	0.021	0.100	0.016	0.010	7012818
Total (Wet Wt) Phosphorus (P)	mg/kg	2510	2520	2360	2940	2770	2.0	7012818
Total (Wet Wt) Potassium (K)	mg/kg	4000	3740	2570	2910	2700	2.0	7012818
Total (Wet Wt) Selenium (Se)	mg/kg	0.170	0.146	0.993	0.893	0.998	0.010	7012818
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	0.0219	0.0010	7012818
Total (Wet Wt) Sodium (Na)	mg/kg	255	414	1500	1180	1300	2.0	7012818
Total (Wet Wt) Strontium (Sr)	mg/kg	0.313	0.389	0.049	0.086	0.116	0.010	7012818
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00230	0.00217	0.00717	0.0120	0.0108	0.00040	7012818
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	0.021	0.021	0.023	0.020	7012818
Total (Wet Wt) Titanium (Ti)	mg/kg	0.164	0.182	0.159	0.213	0.193	0.020	7012818
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	0.00045	<0.00040	0.00068	0.00040	7012818

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV063	NPV064	NPV065	NPV066	NPV067		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-03-01	792731-03-01	792731-05-01	792731-05-01	792731-05-01		
	UNITS	**NP-14 L.TISSUE**	**NP-15 L.TISSUE**	**WA-1 LIVER**	**WA-2 LIVER**	**WA-3 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.058	0.022	0.042	0.020	7012818
Total (Wet Wt) Zinc (Zn)	mg/kg	3.33	3.81	16.4	20.2	26.5	0.040	7012818
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	82	81	75	78	75	0.30	7012817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
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RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV068	NPV069	NPV070	NPV071	NPV072		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-05-01	792731-05-01	792731-05-01	792731-05-01	792731-05-01		
	UNITS	**WA-4 LIVER**	**WA-5 LIVER**	**WA-6 LIVER**	**WA-7 LIVER**	**WA-8 LIVER**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.51	0.56	0.91	1.17	1.00	0.20	7012818
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Arsenic (As)	mg/kg	0.0338	0.114	0.0204	0.0663	0.0483	0.0040	7012818
Total (Wet Wt) Barium (Ba)	mg/kg	0.013	0.024	0.011	0.016	<0.010	0.010	7012818
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0015	0.0017	0.0039	0.0019	0.0013	0.0010	7012818
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012818
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.327	0.170	0.265	0.296	0.0882	0.0010	7012818
Total (Wet Wt) Calcium (Ca)	mg/kg	140	56.6	61.1	86.9	71.3	2.0	7012818
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	0.012	<0.010	0.014	<0.010	0.010	7012818
Total (Wet Wt) Cobalt (Co)	mg/kg	0.232	0.0993	0.0525	0.201	0.114	0.0013	7012818
Total (Wet Wt) Copper (Cu)	mg/kg	1.51	1.40	0.736	1.84	1.15	0.010	7012818
Total (Wet Wt) Iron (Fe)	mg/kg	132	118	31.5	172	124	0.25	7012818
Total (Wet Wt) Lead (Pb)	mg/kg	0.0384 (1)	0.0287 (1)	0.0245 (1)	0.0521 (1)	0.0313 (1)	0.0010	7012818
Total (Wet Wt) Magnesium (Mg)	mg/kg	189	167	157	195	176	0.40	7012818
Total (Wet Wt) Manganese (Mn)	mg/kg	1.61	1.27	1.17	1.55	0.867	0.010	7012818
Total (Wet Wt) Mercury (Hg)	mg/kg	0.121	0.0979	1.44 (2)	0.129	0.128	0.0020	7012818
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.137	0.132	0.0812	0.188	0.111	0.0040	7012818
Total (Wet Wt) Nickel (Ni)	mg/kg	0.021	0.018	<0.010	0.022	0.020	0.010	7012818
Total (Wet Wt) Phosphorus (P)	mg/kg	3080	2890	2550	3230	2770	2.0	7012818
Total (Wet Wt) Potassium (K)	mg/kg	2910	2840	2360	2780	3060	2.0	7012818
Total (Wet Wt) Selenium (Se)	mg/kg	1.05	0.804	0.859	0.934	0.798	0.010	7012818
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012818
Total (Wet Wt) Sodium (Na)	mg/kg	1130	1070	1080	1210	966	2.0	7012818
Total (Wet Wt) Strontium (Sr)	mg/kg	0.061	0.033	0.030	0.067	0.036	0.010	7012818
Total (Wet Wt) Thallium (Tl)	mg/kg	0.0131	0.0121	0.00766	0.0126	0.00783	0.00040	7012818
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	0.025	0.025	<0.020	0.020	7012818
Total (Wet Wt) Titanium (Ti)	mg/kg	0.231	0.209	0.170	0.257	0.197	0.020	7012818
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	0.00108	<0.00040	<0.00040	0.00040	7012818

RDL = Reportable Detection Limit

QC Batch = Quality Control Batch

(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(2) RDL raised due to concentration over linear range, sample dilution required.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV068	NPV069	NPV070	NPV071	NPV072		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-05-01	792731-05-01	792731-05-01	792731-05-01	792731-05-01		
	UNITS	**WA-4 LIVER**	**WA-5 LIVER**	**WA-6 LIVER**	**WA-7 LIVER**	**WA-8 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.029	<0.020	<0.020	0.020	7012818
Total (Wet Wt) Zinc (Zn)	mg/kg	19.2	18.9	15.1	22.2	15.7	0.040	7012818
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	76	86	76	76	71	0.30	7012817

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV073	NPV074			NPV075	NPV076		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-05-01	792731-05-01			792731-06-01	792731-06-01		
	UNITS	**WA-9 LIVER**	**WA-10 LIVER**	**RDL**	**QC Batch**	**WA-11 LIVER**	**WA-12 LIVER**	**RDL**	**QC Batch**
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	0.49	0.75	0.20	7012818	0.45	1.01	0.20	7012820
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Arsenic (As)	mg/kg	0.0313	0.0351	0.0040	7012818	0.0559	0.0681	0.0040	7012820
Total (Wet Wt) Barium (Ba)	mg/kg	<0.010	0.012	0.010	7012818	<0.010	0.015	0.010	7012820
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0010	<0.0010	0.0010	7012818	0.0015	0.0023	0.0010	7012820
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	0.20	7012818	<0.20	<0.20	0.20	7012820
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0789	0.196	0.0010	7012818	0.0902	0.531	0.0010	7012820
Total (Wet Wt) Calcium (Ca)	mg/kg	71.7	126	2.0	7012818	75.4	117	2.0	7012820
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	<0.010	0.010	7012818	<0.010	<0.010	0.010	7012820
Total (Wet Wt) Cobalt (Co)	mg/kg	0.122	0.185	0.0013	7012818	0.132	0.411	0.0013	7012820
Total (Wet Wt) Copper (Cu)	mg/kg	1.21	1.59	0.010	7012818	1.44	1.82	0.010	7012820
Total (Wet Wt) Iron (Fe)	mg/kg	156	76.4	0.25	7012818	185	165	0.25	7012820
Total (Wet Wt) Lead (Pb)	mg/kg	0.0342 (1)	0.0339 (1)	0.0010	7012818	<0.0040 (1)	0.0058 (1)	0.0040	7012820
Total (Wet Wt) Magnesium (Mg)	mg/kg	153	162	0.40	7012818	159	190	0.40	7012820
Total (Wet Wt) Manganese (Mn)	mg/kg	0.968	1.37	0.010	7012818	1.02	1.52	0.010	7012820
Total (Wet Wt) Mercury (Hg)	mg/kg	0.111	0.0979	0.0020	7012818	0.0975	0.314	0.0020	7012820
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.114	0.113	0.0040	7012818	0.104	0.140	0.0040	7012820
Total (Wet Wt) Nickel (Ni)	mg/kg	0.016	0.013	0.010	7012818	0.017	0.027	0.010	7012820
Total (Wet Wt) Phosphorus (P)	mg/kg	2530	2780	2.0	7012818	2550	3060	2.0	7012820
Total (Wet Wt) Potassium (K)	mg/kg	3060	2850	2.0	7012818	2780	2930	2.0	7012820
Total (Wet Wt) Selenium (Se)	mg/kg	0.791	0.902	0.010	7012818	0.886	1.20	0.010	7012820
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	0.0010	7012818	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Sodium (Na)	mg/kg	1070	1220	2.0	7012818	1260	1370	2.0	7012820
Total (Wet Wt) Strontium (Sr)	mg/kg	0.038	0.060	0.010	7012818	0.042	0.062	0.010	7012820
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00757	0.0169	0.00040	7012818	0.00804	0.0108	0.00040	7012820
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.025	0.020	7012818	<0.020	0.022	0.020	7012820
Total (Wet Wt) Titanium (Ti)	mg/kg	0.172	0.192	0.020	7012818	0.118	0.140	0.020	7012820
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00040	0.00040	7012818	<0.00040	0.00094	0.00040	7012820
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	0.020	7012818	<0.020	0.047	0.020	7012820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV073	NPV074			NPV075	NPV076		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-05-01	792731-05-01			792731-06-01	792731-06-01		
	UNITS	**WA-9 LIVER**	**WA-10 LIVER**	**RDL**	**QC Batch**	**WA-11 LIVER**	**WA-12 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Zinc (Zn)	mg/kg	16.3	17.6	0.040	7012818	16.8	18.9	0.040	7012820
PHYSICAL PROPERTIES									
Moisture-Subcontracted	%	78	73	0.30	7012817	78	76	0.30	7012819

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
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RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV077	NPV078	NPV079	NPV080	NPV081		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-06-01	792731-06-01	792731-06-01	792731-06-01	792731-06-01		
	UNITS	**WA-13 LIVER**	**WA-14 LIVER**	**WA-15 LIVER**	**NP-1 LIVER**	**NP-2 LIVER**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.48	0.35	0.32	2.12	0.82	0.20	7012820
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	0.0020	<0.0010	0.0010	7012820
Total (Wet Wt) Arsenic (As)	mg/kg	0.102	0.0366	0.0564	0.0466	0.0403	0.0040	7012820
Total (Wet Wt) Barium (Ba)	mg/kg	0.017	0.012	0.011	0.013	<0.010	0.010	7012820
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0010	0.0013	0.0015	0.0079	0.0041	0.0010	7012820
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012820
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.108	0.119	0.173	0.135	0.133	0.0010	7012820
Total (Wet Wt) Calcium (Ca)	mg/kg	111	110	131	50.9	32.7	2.0	7012820
Total (Wet Wt) Chromium (Cr)	mg/kg	0.014	<0.010	<0.010	0.011	<0.010	0.010	7012820
Total (Wet Wt) Cobalt (Co)	mg/kg	0.184	0.0751	0.0758	0.0549	0.0274	0.0013	7012820
Total (Wet Wt) Copper (Cu)	mg/kg	1.43	1.30	1.66	37.8	11.4	0.010	7012820
Total (Wet Wt) Iron (Fe)	mg/kg	138	114	149	278	103	0.25	7012820
Total (Wet Wt) Lead (Pb)	mg/kg	0.0110 (1)	<0.0040 (1)	<0.0040 (1)	0.0405 (1)	<0.0040 (1)	0.0040	7012820
Total (Wet Wt) Magnesium (Mg)	mg/kg	184	174	207	140	162	0.40	7012820
Total (Wet Wt) Manganese (Mn)	mg/kg	1.05	1.10	2.09	0.836	1.15	0.010	7012820
Total (Wet Wt) Mercury (Hg)	mg/kg	0.0973	0.0982	0.139	0.241	0.225	0.0020	7012820
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.159	0.139	0.110	0.209	0.0929	0.0040	7012820
Total (Wet Wt) Nickel (Ni)	mg/kg	0.021	0.016	0.013	0.027	0.012	0.010	7012820
Total (Wet Wt) Phosphorus (P)	mg/kg	2990	2750	3600	2470	2640	2.0	7012820
Total (Wet Wt) Potassium (K)	mg/kg	2990	2680	3340	2540	3310	2.0	7012820
Total (Wet Wt) Selenium (Se)	mg/kg	0.860	0.866	0.909	2.87	1.89	0.010	7012820
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	0.189	0.0264	0.0010	7012820
Total (Wet Wt) Sodium (Na)	mg/kg	1140	1060	1170	866	774	2.0	7012820
Total (Wet Wt) Strontium (Sr)	mg/kg	0.063	0.052	0.074	0.034	0.018	0.010	7012820
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00891	0.0106	0.0116	0.00367	0.00434	0.00040	7012820
Total (Wet Wt) Tin (Sn)	mg/kg	0.024	<0.020	0.022	<0.020	<0.020	0.020	7012820
Total (Wet Wt) Titanium (Ti)	mg/kg	0.165	0.125	0.178	0.121	0.126	0.020	7012820
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	0.00051	0.00069	0.00040	7012820
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	<0.020	<0.020	0.497	0.127	0.020	7012820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV077	NPV078	NPV079	NPV080	NPV081		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-06-01	792731-06-01	792731-06-01	792731-06-01	792731-06-01		
	UNITS	**WA-13 LIVER**	**WA-14 LIVER**	**WA-15 LIVER**	**NP-1 LIVER**	**NP-2 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Zinc (Zn)	mg/kg	18.9	15.9	20.4	54.5	35.3	0.040	7012820
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	74	82	74	63	73	0.30	7012819

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
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EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV081	NPV082	NPV083	NPV084	NPV085		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-06-01	792731-06-01	792731-06-01	792731-06-01	792731-07-01		
	UNITS	**NP-2 LIVER Lab-Dup**	**NP-3 LIVER**	**NP-4 LIVER**	**NP-5 LIVER**	**NP-6 LIVER**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	0.82	6.76	1.47	3.82	1.16	0.20	7012820
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	0.0066	0.0016	0.0019	0.0020	0.0010	7012820
Total (Wet Wt) Arsenic (As)	mg/kg	0.0409	0.0589	0.0783	0.0442	0.0506	0.0040	7012820
Total (Wet Wt) Barium (Ba)	mg/kg	<0.010	0.020	0.018	0.018	0.015	0.010	7012820
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0043	0.0283	0.0062	0.0067	0.0044	0.0010	7012820
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012820
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.136	0.400	0.173	0.328	0.173	0.0010	7012820
Total (Wet Wt) Calcium (Ca)	mg/kg	34.2	43.6	86.8	67.9	120	2.0	7012820
Total (Wet Wt) Chromium (Cr)	mg/kg	<0.010	0.016	0.010	0.013	0.010	0.010	7012820
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0287	0.104	0.0722	0.0739	0.0582	0.0013	7012820
Total (Wet Wt) Copper (Cu)	mg/kg	11.6	69.8	47.5	24.6	33.8	0.010	7012820
Total (Wet Wt) Iron (Fe)	mg/kg	113	130	576	98.8	286	0.25	7012820
Total (Wet Wt) Lead (Pb)	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	0.0040	7012820
Total (Wet Wt) Magnesium (Mg)	mg/kg	165	164	214	212	188	0.40	7012820
Total (Wet Wt) Manganese (Mn)	mg/kg	1.21	1.34	1.53	1.46	1.37	0.010	7012820
Total (Wet Wt) Mercury (Hg)	mg/kg	0.231	0.667	0.189	0.445	0.179	0.0020	7012820
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0950	0.349	0.308	0.226	0.260	0.0040	7012820
Total (Wet Wt) Nickel (Ni)	mg/kg	0.013	0.060	0.029	0.037	0.031	0.010	7012820
Total (Wet Wt) Phosphorus (P)	mg/kg	2760	2990	3470	3450	3160	2.0	7012820
Total (Wet Wt) Potassium (K)	mg/kg	3400	3050	3000	2980	2420	2.0	7012820
Total (Wet Wt) Selenium (Se)	mg/kg	2.03	3.78	3.79	2.07	2.66	0.010	7012820
Total (Wet Wt) Silver (Ag)	mg/kg	0.0270	0.234	0.111	0.0612	0.125	0.0010	7012820
Total (Wet Wt) Sodium (Na)	mg/kg	793	906	855	1060	835	2.0	7012820
Total (Wet Wt) Strontium (Sr)	mg/kg	0.018	0.035	0.060	0.044	0.065	0.010	7012820
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00448	0.00374	0.00470	0.00372	0.00388	0.00040	7012820
Total (Wet Wt) Tin (Sn)	mg/kg	0.021	<0.020	0.029	<0.020	0.026	0.020	7012820
Total (Wet Wt) Titanium (Ti)	mg/kg	0.148	0.178	0.197	0.196	0.168	0.020	7012820
Total (Wet Wt) Uranium (U)	mg/kg	0.00070	0.00185	<0.00040	0.00187	<0.00040	0.00040	7012820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV081	NPV082	NPV083	NPV084	NPV085		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-06-01	792731-06-01	792731-06-01	792731-06-01	792731-07-01		
	UNITS	**NP-2 LIVER Lab-Dup**	**NP-3 LIVER**	**NP-4 LIVER**	**NP-5 LIVER**	**NP-6 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Vanadium (V)	mg/kg	0.128	1.52	0.213	0.420	0.165	0.020	7012820
Total (Wet Wt) Zinc (Zn)	mg/kg	35.1	69.8	73.7	54.2	86.4	0.040	7012820
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	73	67	63	78	67	0.30	7012819

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV086	NPV087	NPV088	NPV089	NPV090		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-07-01	792731-07-01	792731-07-01	792731-07-01	792731-07-01		
	UNITS	**NP-7 LIVER**	**NP-8 LIVER**	**NP-9 LIVER**	**NP-10 LIVER**	**NP-11 LIVER**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	2.30	2.44	1.29	1.53	2.57	0.20	7012820
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	0.0033	0.0012	0.0016	0.0019	0.0010	7012820
Total (Wet Wt) Arsenic (As)	mg/kg	0.0850	0.0625	0.0465	0.0566	0.0480	0.0040	7012820
Total (Wet Wt) Barium (Ba)	mg/kg	0.028	0.018	0.018	0.016	0.015	0.010	7012820
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0080	0.0103	0.0052	0.0077	0.0103	0.0010	7012820
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	<0.20	0.20	7012820
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.205	0.356	0.121	0.198	0.217	0.0010	7012820
Total (Wet Wt) Calcium (Ca)	mg/kg	57.3	70.5	60.5	69.0	83.5	2.0	7012820
Total (Wet Wt) Chromium (Cr)	mg/kg	0.014	0.010	0.014	0.020	<0.010	0.010	7012820
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0600	0.0917	0.0808	0.0690	0.0658	0.0013	7012820
Total (Wet Wt) Copper (Cu)	mg/kg	43.7	53.2	29.8	46.4	34.5	0.010	7012820
Total (Wet Wt) Iron (Fe)	mg/kg	255	533	212	202	55.6	0.25	7012820
Total (Wet Wt) Lead (Pb)	mg/kg	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	<0.0040 (1)	0.0040	7012820
Total (Wet Wt) Magnesium (Mg)	mg/kg	172	178	203	197	202	0.40	7012820
Total (Wet Wt) Manganese (Mn)	mg/kg	1.50	1.30	1.19	1.56	1.40	0.010	7012820
Total (Wet Wt) Mercury (Hg)	mg/kg	0.287	0.384	0.225	0.238	0.567	0.0020	7012820
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.273	0.246	0.184	0.282	0.235	0.0040	7012820
Total (Wet Wt) Nickel (Ni)	mg/kg	0.026	0.049	0.028	0.034	0.033	0.010	7012820
Total (Wet Wt) Phosphorus (P)	mg/kg	2930	2980	3520	3090	3640	2.0	7012820
Total (Wet Wt) Potassium (K)	mg/kg	2630	2760	3030	2760	3320	2.0	7012820
Total (Wet Wt) Selenium (Se)	mg/kg	2.53	3.18	2.93	3.04	2.29	0.010	7012820
Total (Wet Wt) Silver (Ag)	mg/kg	0.175	0.315	0.101	0.125	0.179	0.0010	7012820
Total (Wet Wt) Sodium (Na)	mg/kg	838	925	850	839	967	2.0	7012820
Total (Wet Wt) Strontium (Sr)	mg/kg	0.058	0.069	0.045	0.044	0.055	0.010	7012820
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00530	0.00346	0.00345	0.00395	0.00530	0.00040	7012820
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	<0.020	<0.020	0.020	7012820
Total (Wet Wt) Titanium (Ti)	mg/kg	0.181	0.136	0.183	0.176	0.178	0.020	7012820
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00090	0.00080	0.00040	0.00313	0.00040	7012820
Total (Wet Wt) Vanadium (V)	mg/kg	0.241	0.764	0.440	0.168	0.602	0.020	7012820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV086	NPV087	NPV088	NPV089	NPV090		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-07-01	792731-07-01	792731-07-01	792731-07-01	792731-07-01		
	UNITS	**NP-7 LIVER**	**NP-8 LIVER**	**NP-9 LIVER**	**NP-10 LIVER**	**NP-11 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Zinc (Zn)	mg/kg	81.3	57.8	67.9	74.9	54.5	0.040	7012820
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	64	60	69	68	78	0.30	7012819

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV091	NPV092	NPV093	NPV094		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-07-01	792731-07-01	792731-07-01	792731-07-01		
	UNITS	**NP-12 LIVER**	**NP-13 LIVER**	**NP-14 LIVER**	**NP-15 LIVER**	**RDL**	**QC Batch**
Metals							
Total (Wet Wt) Aluminum (Al)	mg/kg	1.45	0.24	1.33	2.82	0.20	7012820
Total (Wet Wt) Antimony (Sb)	mg/kg	0.0016	<0.0010	0.0013	0.0015	0.0010	7012820
Total (Wet Wt) Arsenic (As)	mg/kg	0.0358	0.0244	0.0843	0.0455	0.0040	7012820
Total (Wet Wt) Barium (Ba)	mg/kg	0.020	<0.010	0.017	0.017	0.010	7012820
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	<0.0010	0.0010	7012820
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0080	0.0048	0.0051	0.0113	0.0010	7012820
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	<0.20	0.20	7012820
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0793	0.0304	0.102	0.322	0.0010	7012820
Total (Wet Wt) Calcium (Ca)	mg/kg	153	44.4	64.9	72.7	2.0	7012820
Total (Wet Wt) Chromium (Cr)	mg/kg	0.095	<0.010	0.012	0.028	0.010	7012820
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0521	0.0153	0.0616	0.0981	0.0013	7012820
Total (Wet Wt) Copper (Cu)	mg/kg	31.2	10.3	24.7	49.1	0.010	7012820
Total (Wet Wt) Iron (Fe)	mg/kg	130	20.5	397	176	0.25	7012820
Total (Wet Wt) Lead (Pb)	mg/kg	<0.0040 (1)	<0.0040 (1)	0.0415 (1)	<0.0040 (1)	0.0040	7012820
Total (Wet Wt) Magnesium (Mg)	mg/kg	176	145	141	162	0.40	7012820
Total (Wet Wt) Manganese (Mn)	mg/kg	1.46	0.945	0.927	1.37	0.010	7012820
Total (Wet Wt) Mercury (Hg)	mg/kg	0.249	0.182	0.146	0.439	0.0020	7012820
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.209	0.0845	0.180	0.269	0.0040	7012820
Total (Wet Wt) Nickel (Ni)	mg/kg	0.025	<0.010	0.027	0.040	0.010	7012820
Total (Wet Wt) Phosphorus (P)	mg/kg	2930	2310	2300	2780	2.0	7012820
Total (Wet Wt) Potassium (K)	mg/kg	2460	2840	2150	2770	2.0	7012820
Total (Wet Wt) Selenium (Se)	mg/kg	2.36	1.74	2.20	2.53	0.010	7012820
Total (Wet Wt) Silver (Ag)	mg/kg	0.105	0.0168	0.0746	0.127	0.0010	7012820
Total (Wet Wt) Sodium (Na)	mg/kg	791	753	929	1180	2.0	7012820
Total (Wet Wt) Strontium (Sr)	mg/kg	0.073	0.022	0.045	0.056	0.010	7012820
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00346	0.00247	0.00379	0.00395	0.00040	7012820
Total (Wet Wt) Tin (Sn)	mg/kg	0.039	<0.020	0.022	0.027	0.020	7012820
Total (Wet Wt) Titanium (Ti)	mg/kg	0.176	0.119	0.095	0.174	0.020	7012820
Total (Wet Wt) Uranium (U)	mg/kg	0.00050	<0.00040	0.00091	0.00073	0.00040	7012820
Total (Wet Wt) Vanadium (V)	mg/kg	0.132	0.039	0.266	0.281	0.020	7012820

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
(1) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV091	NPV092	NPV093	NPV094		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-07-01	792731-07-01	792731-07-01	792731-07-01		
	UNITS	**NP-12 LIVER**	**NP-13 LIVER**	**NP-14 LIVER**	**NP-15 LIVER**	**RDL**	**QC Batch**
Total (Wet Wt) Zinc (Zn)	mg/kg	76.7	42.0	33.0	61.6	0.040	7012820
PHYSICAL PROPERTIES							
Moisture-Subcontracted	%	68	70	57	76	0.30	7012819

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV095	NPV096	NPV097			NPV098		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-08-01	792731-08-01	792731-08-01			792731-08-01		
	UNITS	**WA-7- GONAD**	**WA-13- GONAD**	**WA-11- GONAD**	**RDL**	**QC Batch**	**WA-15- GONAD**	**RDL**	**QC Batch**
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	8.48	2.39	1.20	0.50	7012821	0.34	0.20	7012824
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	7012821	<0.0010	0.0010	7012824
Total (Wet Wt) Arsenic (As)	mg/kg	0.0625	0.0473	0.0219	0.0050	7012821	0.0319	0.0040	7012824
Total (Wet Wt) Barium (Ba)	mg/kg	0.064	0.059	0.014	0.010	7012821	0.030	0.010	7012824
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	<0.0020	<0.0020	0.0020	7012821	<0.0010	0.0010	7012824
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0020	0.0021	0.0014	0.0013	7012821	<0.0010	0.0010	7012824
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	0.20	7012821	<0.20	0.20	7012824
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0119	0.0056	0.0038	0.0013	7012821	0.0035	0.0010	7012824
Total (Wet Wt) Calcium (Ca)	mg/kg	174	394	114	4.0	7012821	288	2.0	7012824
Total (Wet Wt) Chromium (Cr)	mg/kg	0.113	0.079	0.029	0.025	7012821	<0.010	0.010	7012824
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0512	0.0485	0.123	0.0013	7012821	0.0555	0.0013	7012824
Total (Wet Wt) Copper (Cu)	mg/kg	1.07	0.859	0.866	0.013	7012821	1.01	0.010	7012824
Total (Wet Wt) Iron (Fe)	mg/kg	35.8	34.0	34.7	0.25	7012821	19.7	0.25	7012824
Total (Wet Wt) Lead (Pb)	mg/kg	0.016	<0.015	<0.015	0.015	7012821	0.0341	0.0010	7012824
Total (Wet Wt) Magnesium (Mg)	mg/kg	406	371	324	0.40	7012821	343	0.40	7012824
Total (Wet Wt) Manganese (Mn)	mg/kg	0.598	0.661	0.275	0.010	7012821	4.13	0.010	7012824
Total (Wet Wt) Mercury (Hg)	mg/kg	0.068	0.097	0.066	0.013	7012821	0.0412	0.0020	7012824
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0155	0.0191	0.0166	0.0080	7012821	0.0144	0.0040	7012824
Total (Wet Wt) Nickel (Ni)	mg/kg	0.044	0.033	0.013	0.010	7012821	0.010	0.010	7012824
Total (Wet Wt) Phosphorus (P)	mg/kg	6000	5820	6260	2.0	7012821	3330	2.0	7012824
Total (Wet Wt) Potassium (K)	mg/kg	6410	6000	7280	2.5	7012821	3530	2.0	7012824
Total (Wet Wt) Selenium (Se)	mg/kg	1.23	1.68	1.23	0.010	7012821	0.939	0.010	7012824
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	<0.0013	<0.0013	0.0013	7012821	<0.0010	0.0010	7012824
Total (Wet Wt) Sodium (Na)	mg/kg	818	632	620	2.5	7012821	787	2.0	7012824
Total (Wet Wt) Strontium (Sr)	mg/kg	0.118	0.245	0.075	0.013	7012821	0.069	0.010	7012824
Total (Wet Wt) Thallium (Tl)	mg/kg	0.0103	0.00827	0.0112	0.00040	7012821	0.00713	0.00040	7012824
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	<0.020	<0.020	0.020	7012821	<0.020	0.020	7012824
Total (Wet Wt) Titanium (Ti)	mg/kg	0.80	0.55	0.48	0.13	7012821	0.165	0.020	7012824
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	<0.00040	<0.00040	0.00040	7012821	<0.00040	0.00040	7012824
Total (Wet Wt) Vanadium (V)	mg/kg	0.020	<0.020	<0.020	0.020	7012821	<0.020	0.020	7012824
Total (Wet Wt) Zinc (Zn)	mg/kg	230	213	206	0.20	7012821	39.9	0.040	7012824

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV095	NPV096	NPV097			NPV098		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00			2020/09/13 10:00		
COC Number		792731-08-01	792731-08-01	792731-08-01			792731-08-01		
	UNITS	**WA-7- GONAD**	**WA-13- GONAD**	**WA-11- GONAD**	**RDL**	**QC Batch**	**WA-15- GONAD**	**RDL**	**QC Batch**
PHYSICAL PROPERTIES									
Moisture-Subcontracted	%	76	76	78	0.30	7012822	70	0.30	7012823

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV099			NPV100	NPV100		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-08-01			792731-08-01	792731-08-01		
	UNITS	**WA-5- GONAD**	**RDL**	**QC Batch**	**WA-6- GONAD**	**WA-6- GONAD Lab-Dup**	**RDL**	**QC Batch**
Metals								
Total (Wet Wt) Aluminum (Al)	mg/kg	4.90	0.50	7012821	0.75	0.53	0.20	7012824
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	0.0020	7012821	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Arsenic (As)	mg/kg	0.0422	0.0050	7012821	0.0135	0.0145	0.0040	7012824
Total (Wet Wt) Barium (Ba)	mg/kg	0.080	0.010	7012821	0.032	0.031	0.010	7012824
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	0.0020	7012821	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0018	0.0013	7012821	0.0032	0.0031	0.0010	7012824
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	7012821	<0.20	<0.20	0.20	7012824
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0052	0.0013	7012821	0.0095	0.0093	0.0010	7012824
Total (Wet Wt) Calcium (Ca)	mg/kg	157	4.0	7012821	236	238	2.0	7012824
Total (Wet Wt) Chromium (Cr)	mg/kg	0.066	0.025	7012821	<0.010	<0.010	0.010	7012824
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0637	0.0013	7012821	0.0341	0.0334	0.0013	7012824
Total (Wet Wt) Copper (Cu)	mg/kg	0.907	0.013	7012821	0.691	0.686	0.010	7012824
Total (Wet Wt) Iron (Fe)	mg/kg	25.1	0.25	7012821	21.6	23.0	0.25	7012824
Total (Wet Wt) Lead (Pb)	mg/kg	0.024	0.015	7012821	0.0383	0.0364	0.0010	7012824
Total (Wet Wt) Magnesium (Mg)	mg/kg	392	0.40	7012821	274	278	0.40	7012824
Total (Wet Wt) Manganese (Mn)	mg/kg	0.586	0.010	7012821	2.08	2.12	0.010	7012824
Total (Wet Wt) Mercury (Hg)	mg/kg	0.057	0.013	7012821	0.455	0.453	0.0020	7012824
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0171	0.0080	7012821	0.0093	0.0099	0.0040	7012824
Total (Wet Wt) Nickel (Ni)	mg/kg	0.042	0.010	7012821	0.012	<0.010	0.010	7012824
Total (Wet Wt) Phosphorus (P)	mg/kg	5800	2.0	7012821	2530	2590	2.0	7012824
Total (Wet Wt) Potassium (K)	mg/kg	6570	2.5	7012821	2470	2510	2.0	7012824
Total (Wet Wt) Selenium (Se)	mg/kg	1.34	0.010	7012821	0.583	0.582	0.010	7012824
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0013	7012821	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Sodium (Na)	mg/kg	1020	2.5	7012821	1200	1220	2.0	7012824
Total (Wet Wt) Strontium (Sr)	mg/kg	0.098	0.013	7012821	0.053	0.053	0.010	7012824
Total (Wet Wt) Thallium (Tl)	mg/kg	0.0113	0.00040	7012821	0.00492	0.00510	0.00040	7012824
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	7012821	0.026	0.025	0.020	7012824
Total (Wet Wt) Titanium (Ti)	mg/kg	0.54	0.13	7012821	0.146	0.129	0.020	7012824
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00040	7012821	<0.00040	<0.00040	0.00040	7012824
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	0.020	7012821	<0.020	<0.020	0.020	7012824
Total (Wet Wt) Zinc (Zn)	mg/kg	232	0.20	7012821	20.9	21.2	0.040	7012824

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV099			NPV100	NPV100		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-08-01			792731-08-01	792731-08-01		
	UNITS	**WA-5- GONAD**	**RDL**	**QC Batch**	**WA-6- GONAD**	**WA-6- GONAD Lab-Dup**	**RDL**	**QC Batch**
PHYSICAL PROPERTIES								
Moisture-Subcontracted	%	78	0.30	7012822	72	69	0.30	7012823

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch
Lab-Dup = Laboratory Initiated Duplicate

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV101			NPV102	NPV103	NPV104		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-08-01			792731-08-01	792731-08-01	792731-08-01		
	UNITS	**WA-2- GONAD**	**RDL**	**QC Batch**	**WA-9- GONAD**	**NP-5- GONAD**	**NP-2- GONAD**	**RDL**	**QC Batch**
Metals									
Total (Wet Wt) Aluminum (Al)	mg/kg	2.52	0.50	7012821	1.09	3.88	0.45	0.20	7012824
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0020	0.0020	7012821	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Arsenic (As)	mg/kg	0.0613	0.0050	7012821	0.0254	0.0218	0.0348	0.0040	7012824
Total (Wet Wt) Barium (Ba)	mg/kg	0.051	0.010	7012821	0.024	0.028	0.023	0.010	7012824
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0020	0.0020	7012821	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Bismuth (Bi)	mg/kg	0.0016	0.0013	7012821	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Boron (B)	mg/kg	<0.20	0.20	7012821	1.95	<0.20	<0.20	0.20	7012824
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0067	0.0013	7012821	0.0024	0.0188	0.0296	0.0010	7012824
Total (Wet Wt) Calcium (Ca)	mg/kg	212	4.0	7012821	55.5	170	487	2.0	7012824
Total (Wet Wt) Chromium (Cr)	mg/kg	0.060	0.025	7012821	0.011	0.013	<0.010	0.010	7012824
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0940	0.0013	7012821	0.0086	0.0642	0.0498	0.0013	7012824
Total (Wet Wt) Copper (Cu)	mg/kg	1.12	0.013	7012821	0.423	0.885	0.748	0.010	7012824
Total (Wet Wt) Iron (Fe)	mg/kg	53.9	0.25	7012821	24.3	48.0	30.5	0.25	7012824
Total (Wet Wt) Lead (Pb)	mg/kg	<0.015	0.015	7012821	0.0300	0.0354	0.0328	0.0010	7012824
Total (Wet Wt) Magnesium (Mg)	mg/kg	377	0.40	7012821	258	221	205	0.40	7012824
Total (Wet Wt) Manganese (Mn)	mg/kg	0.576	0.010	7012821	0.512	35.6	12.0	0.010	7012824
Total (Wet Wt) Mercury (Hg)	mg/kg	0.066	0.013	7012821	0.0679	0.0849	0.0937	0.0020	7012824
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0209	0.0080	7012821	0.0042	0.0575	0.0140	0.0040	7012824
Total (Wet Wt) Nickel (Ni)	mg/kg	0.156	0.010	7012821	0.019	0.015	0.012	0.010	7012824
Total (Wet Wt) Phosphorus (P)	mg/kg	6050	2.0	7012821	5290	3110	3140	2.0	7012824
Total (Wet Wt) Potassium (K)	mg/kg	7040	2.5	7012821	5310	4120	4060	2.0	7012824
Total (Wet Wt) Selenium (Se)	mg/kg	1.64	0.010	7012821	0.482	0.797	1.10	0.010	7012824
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0013	0.0013	7012821	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Sodium (Na)	mg/kg	807	2.5	7012821	861	624	895	2.0	7012824
Total (Wet Wt) Strontium (Sr)	mg/kg	0.169	0.013	7012821	0.050	0.072	0.220	0.010	7012824
Total (Wet Wt) Thallium (Tl)	mg/kg	0.0132	0.00040	7012821	0.0123	0.00411	0.00489	0.00040	7012824
Total (Wet Wt) Tin (Sn)	mg/kg	<0.020	0.020	7012821	<0.020	<0.020	0.021	0.020	7012824
Total (Wet Wt) Titanium (Ti)	mg/kg	0.51	0.13	7012821	0.276	0.280	0.162	0.020	7012824
Total (Wet Wt) Uranium (U)	mg/kg	<0.00040	0.00040	7012821	0.00063	0.00068	0.00047	0.00040	7012824
Total (Wet Wt) Vanadium (V)	mg/kg	<0.020	0.020	7012821	<0.020	0.061	0.020	0.020	7012824
Total (Wet Wt) Zinc (Zn)	mg/kg	231	0.20	7012821	20.4	85.8	87.2	0.040	7012824

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV101			NPV102	NPV103	NPV104		
Sampling Date		2020/09/13 10:00			2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-08-01			792731-08-01	792731-08-01	792731-08-01		
	UNITS	**WA-2- GONAD**	**RDL**	**QC Batch**	**WA-9- GONAD**	**NP-5- GONAD**	**NP-2- GONAD**	**RDL**	**QC Batch**
PHYSICAL PROPERTIES									
Moisture-Subcontracted	%	77	0.30	7012822	78	83	82	0.30	7012823

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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EcoMetrix Incorporated
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RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV105	NPV106	NPV107		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-09-01	792731-09-01	792731-09-01		
	UNITS	**NP-11 GONAD**	**NP-9 GONAD**	**NP-13 GONAD**	**RDL**	**QC Batch**
Metals						
Total (Wet Wt) Aluminum (Al)	mg/kg	0.70	1.54	0.26	0.20	7012824
Total (Wet Wt) Antimony (Sb)	mg/kg	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Arsenic (As)	mg/kg	0.0274	0.0366	0.0276	0.0040	7012824
Total (Wet Wt) Barium (Ba)	mg/kg	0.024	0.025	0.016	0.010	7012824
Total (Wet Wt) Beryllium (Be)	mg/kg	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Bismuth (Bi)	mg/kg	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Boron (B)	mg/kg	<0.20	<0.20	<0.20	0.20	7012824
Total (Wet Wt) Cadmium (Cd)	mg/kg	0.0167	0.0066	0.0058	0.0010	7012824
Total (Wet Wt) Calcium (Ca)	mg/kg	228	101	205	2.0	7012824
Total (Wet Wt) Chromium (Cr)	mg/kg	0.014	0.036	<0.010	0.010	7012824
Total (Wet Wt) Cobalt (Co)	mg/kg	0.0737	0.0874	0.0277	0.0013	7012824
Total (Wet Wt) Copper (Cu)	mg/kg	1.06	0.919	0.983	0.010	7012824
Total (Wet Wt) Iron (Fe)	mg/kg	56.8	50.6	24.3	0.25	7012824
Total (Wet Wt) Lead (Pb)	mg/kg	0.0337	0.0334	0.0318	0.0010	7012824
Total (Wet Wt) Magnesium (Mg)	mg/kg	214	227	211	0.40	7012824
Total (Wet Wt) Manganese (Mn)	mg/kg	41.1	22.0	16.8	0.010	7012824
Total (Wet Wt) Mercury (Hg)	mg/kg	0.0824	0.0424	0.0749	0.0020	7012824
Total (Wet Wt) Molybdenum (Mo)	mg/kg	0.0498	0.0544	0.0212	0.0040	7012824
Total (Wet Wt) Nickel (Ni)	mg/kg	0.014	0.015	0.014	0.010	7012824
Total (Wet Wt) Phosphorus (P)	mg/kg	2970	3020	2910	2.0	7012824
Total (Wet Wt) Potassium (K)	mg/kg	3880	4090	3810	2.0	7012824
Total (Wet Wt) Selenium (Se)	mg/kg	0.911	0.829	0.858	0.010	7012824
Total (Wet Wt) Silver (Ag)	mg/kg	<0.0010	<0.0010	<0.0010	0.0010	7012824
Total (Wet Wt) Sodium (Na)	mg/kg	815	639	775	2.0	7012824
Total (Wet Wt) Strontium (Sr)	mg/kg	0.108	0.047	0.086	0.010	7012824
Total (Wet Wt) Thallium (Tl)	mg/kg	0.00387	0.00389	0.00435	0.00040	7012824
Total (Wet Wt) Tin (Sn)	mg/kg	0.021	<0.020	<0.020	0.020	7012824
Total (Wet Wt) Titanium (Ti)	mg/kg	0.150	0.182	0.140	0.020	7012824
Total (Wet Wt) Uranium (U)	mg/kg	0.00052	<0.00040	<0.00040	0.00040	7012824
Total (Wet Wt) Vanadium (V)	mg/kg	0.058	0.067	<0.020	0.020	7012824
Total (Wet Wt) Zinc (Zn)	mg/kg	57.7	66.6	72.9	0.040	7012824

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

RESULTS OF ANALYSES OF TISSUE

BV Labs ID		NPV105	NPV106	NPV107		
Sampling Date		2020/09/13 10:00	2020/09/13 10:00	2020/09/13 10:00		
COC Number		792731-09-01	792731-09-01	792731-09-01		
	UNITS	**NP-11 GONAD**	**NP-9 GONAD**	**NP-13 GONAD**	**RDL**	**QC Batch**
PHYSICAL PROPERTIES						
Moisture-Subcontracted	%	83	84	81	0.30	7012823

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV035		NPV036		NPV037		NPV038		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-01-01		792731-01-01		
	UNITS	**WA-1 L.TISSUE**	**RDL**	**WA-2 L.TISSUE**	**RDL**	**WA-3 L.TISSUE**	**RDL**	**WA-4 L.TISSUE**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	1.24	0.99	1.32	0.98	4.4	1.0	1.7	1.0	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0049	0.0049	<0.0049	0.0049	<0.0051	0.0051	<0.0052	0.0052	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.337	0.020	0.330	0.020	0.393	0.021	0.301	0.021	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.052	0.049	<0.049	0.049	0.192	0.051	<0.052	0.052	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0049	0.0049	<0.0049	0.0049	<0.0051	0.0051	<0.0052	0.0052	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0157	0.0049	0.0071	0.0049	0.0193	0.0051	0.0069	0.0052	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.99	0.99	<0.98	0.98	<1.0	1.0	<1.0	1.0	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0063	0.0049	<0.0049	0.0049	<0.0051	0.0051	<0.0052	0.0052	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0786	0.0049	0.0494	0.0049	0.0739	0.0051	0.0596	0.0052	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.049	0.049	<0.049	0.049	<0.051	0.051	<0.052	0.052	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0086	0.0062	0.0069	0.0061	<0.0064	0.0064	0.0068	0.0065	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.598	0.049	0.535	0.049	0.518	0.051	0.569	0.052	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	9.0	1.2	7.1	1.2	7.0	1.3	8.2	1.3	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.49	0.49	<0.49	0.49	<0.51	0.51	<0.52	0.52	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	0.607	0.049	0.454	0.049	0.417	0.051	0.680	0.052	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	4.27	0.0099	1.77	0.0098	1.81	0.010	1.67	0.010	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.020	0.020	<0.020	0.020	<0.021	0.021	<0.021	0.021	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.049	0.049	<0.049	0.049	0.099	0.051	<0.052	0.052	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	14400	9.9	11600	9.8	12100	10	12300	10	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	61.0	0.049	57.3	0.049	52.9	0.051	57.2	0.052	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	1.46	0.049	1.20	0.049	0.785	0.051	1.26	0.052	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0049	0.0049	<0.0049	0.0049	<0.0051	0.0051	<0.0052	0.0052	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.090	0.049	0.073	0.049	1.03	0.051	0.094	0.052	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.020	0.020	<0.020	0.020	<0.021	0.021	<0.021	0.021	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0190	0.0020	0.0183	0.0020	0.0188	0.0021	0.0222	0.0021	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.099	0.099	<0.098	0.098	<0.10	0.10	<0.10	0.10	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.956	0.099	0.834	0.098	0.81	0.10	0.80	0.10	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0020	0.0020	<0.0020	0.0020	<0.0021	0.0021	<0.0021	0.0021	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.099	0.099	<0.098	0.098	<0.10	0.10	<0.10	0.10	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	15.0	0.20	14.7	0.20	15.1	0.21	16.0	0.21	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.20	0.20	<0.20	0.20	<0.21	0.21	<0.21	0.21	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	636	9.9	591	9.8	2400	10	695	10	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1860	2.0	1490	2.0	1480	2.1	1580	2.1	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV035		NPV036		NPV037		NPV038		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-01-01		792731-01-01		
	UNITS	**WA-1 L.TISSUE**	**RDL**	**WA-2 L.TISSUE**	**RDL**	**WA-3 L.TISSUE**	**RDL**	**WA-4 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	26900	9.9	22100	9.8	20900	10	23400	10	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1340	9.9	1910	9.8	1410	10	1460	10	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV039		NPV040		NPV041		NPV042		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-01-01		792731-01-01		
	UNITS	**WA-5 L.TISSUE**	**RDL**	**WA-6 L.TISSUE**	**RDL**	**WA-7 L.TISSUE**	**RDL**	**WA-8 L.TISSUE**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	2.28	0.94	6.1	1.0	6.65	0.98	2.9	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0049	0.0049	<0.0053	0.0053	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.224	0.019	0.594	0.020	0.255	0.020	0.224	0.021	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	<0.047	0.047	0.071	0.051	0.062	0.049	0.064	0.053	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0049	0.0049	<0.0053	0.0053	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0083	0.0047	0.0273	0.0051	0.0100	0.0049	0.0137	0.0053	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.94	0.94	<1.0	1.0	<0.98	0.98	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0049	0.0049	<0.0053	0.0053	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0534	0.0047	0.102	0.0051	0.0586	0.0049	0.0736	0.0053	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.047	0.047	<0.051	0.051	0.076	0.049	<0.053	0.053	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0063	0.0059	0.0065	0.0063	0.0098	0.0061	0.0068	0.0067	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.517	0.047	0.445	0.051	0.578	0.049	0.572	0.053	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	6.5	1.2	10.9	1.3	10.4	1.2	8.8	1.3	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.47	0.47	<0.51	0.51	<0.49	0.49	<0.53	0.53	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	0.625	0.047	0.385	0.051	0.665	0.049	0.655	0.053	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	1.38	0.0094	8.83	0.010	1.31	0.0098	2.74	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.019	0.019	<0.020	0.020	<0.020	0.020	<0.021	0.021	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.047	0.047	<0.051	0.051	0.200	0.049	<0.053	0.053	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	11400	9.4	12300	10	12700	9.8	12500	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	56.0	0.047	75.2	0.051	67.8	0.049	61.3	0.053	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	0.962	0.047	1.15	0.051	1.16	0.049	1.20	0.053	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0049	0.0049	<0.0053	0.0053	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.116	0.047	0.117	0.051	0.092	0.049	0.225	0.053	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.019	0.019	<0.020	0.020	<0.020	0.020	<0.021	0.021	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0175	0.0019	0.0164	0.0020	0.0176	0.0020	0.0193	0.0021	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	0.244	0.094	<0.10	0.10	<0.098	0.098	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.799	0.094	0.94	0.10	1.06	0.098	0.95	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0019	0.0019	<0.0020	0.0020	<0.0020	0.0020	<0.0021	0.0021	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.094	0.094	<0.10	0.10	<0.098	0.098	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	14.5	0.19	14.0	0.20	15.5	0.20	16.2	0.21	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.19	0.19	<0.20	0.20	<0.20	0.20	<0.21	0.21	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	658	9.4	471	10	613	9.8	1050	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1520	1.9	1540	2.0	1620	2.0	1690	2.1	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV039		NPV040		NPV041		NPV042		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-01-01		792731-01-01		
	UNITS	**WA-5 L.TISSUE**	**RDL**	**WA-6 L.TISSUE**	**RDL**	**WA-7 L.TISSUE**	**RDL**	**WA-8 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	22000	9.4	22000	10	23900	9.8	23000	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1090	9.4	1550	10	1470	9.8	2480	11	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV043		NPV044		NPV045		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-02-01		
	UNITS	**WA-9 L.TISSUE**	**RDL**	**WA-10 L.TISSUE**	**RDL**	**WA-11 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Dry Wt) Aluminum (Al)	mg/kg	9.7	1.0	3.0	1.0	1.2	1.0	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0051	0.0051	<0.0050	0.0050	<0.0051	0.0051	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.215	0.020	0.154	0.020	0.153	0.020	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.091	0.051	0.065	0.050	<0.051	0.051	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0051	0.0051	<0.0050	0.0050	<0.0051	0.0051	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0104	0.0051	<0.0050	0.0050	0.0126	0.0051	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.0	1.0	<1.0	1.0	<1.0	1.0	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	<0.0051	0.0051	<0.0050	0.0050	<0.0051	0.0051	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0656	0.0051	0.0747	0.0050	0.0677	0.0051	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.053	0.051	<0.050	0.050	0.188	0.051	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0098	0.0063	<0.0062	0.0062	0.0064	0.0064	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.520	0.051	0.512	0.050	0.581	0.051	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	16.0	1.3	7.2	1.2	7.7	1.3	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.51	0.51	<0.50	0.50	<0.51	0.51	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	0.789	0.051	0.495	0.050	0.530	0.051	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	2.13	0.010	1.23	0.010	1.97	0.010	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.020	0.020	<0.020	0.020	<0.020	0.020	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.051	0.051	<0.050	0.050	<0.051	0.051	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	12100	10	12600	10	12900	10	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	58.0	0.051	87.5	0.050	65.3	0.051	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	1.20	0.051	0.953	0.050	1.13	0.051	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0051	0.0051	<0.0050	0.0050	<0.0051	0.0051	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.103	0.051	0.184	0.050	0.227	0.051	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.020	0.020	<0.020	0.020	<0.020	0.020	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0144	0.0020	0.0210	0.0020	0.0181	0.0020	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.10	0.10	<0.10	0.10	<0.10	0.10	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	1.05	0.10	0.90	0.10	0.90	0.10	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0020	0.0020	<0.0020	0.0020	<0.0020	0.0020	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.10	0.10	<0.10	0.10	<0.10	0.10	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	14.0	0.20	13.6	0.20	15.3	0.20	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.20	0.20	<0.20	0.20	<0.20	0.20	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	614	10	805	10	988	10	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1570	2.0	1610	2.0	1650	2.0	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV043		NPV044		NPV045		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-01-01		792731-01-01		792731-02-01		
	UNITS	**WA-9 L.TISSUE**	**RDL**	**WA-10 L.TISSUE**	**RDL**	**WA-11 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	22800	10	22700	10	24700	10	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2190	10	1730	10	2150	10	7012815

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV046		NPV047		NPV048		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-02-01		
	UNITS	**WA-12 L.TISSUE**	**RDL**	**WA-13 L.TISSUE**	**RDL**	**WA-14 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Dry Wt) Aluminum (Al)	mg/kg	18.6	0.93	1.5	1.0	<1.1	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0047	0.0047	<0.0052	0.0052	<0.0054	0.0054	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.709	0.019	0.216	0.021	0.213	0.022	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.072	0.047	<0.052	0.052	<0.054	0.054	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0047	0.0047	<0.0052	0.0052	<0.0054	0.0054	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0106	0.0047	0.0096	0.0052	0.0097	0.0054	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.93	0.93	<1.0	1.0	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	<0.0047	0.0047	<0.0052	0.0052	<0.0054	0.0054	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0533	0.0047	0.0462	0.0052	0.0538	0.0054	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.052	0.047	<0.052	0.052	<0.054	0.054	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0071	0.0058	<0.0065	0.0065	0.0071	0.0068	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.493	0.047	0.527	0.052	0.582	0.054	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	7.1	1.2	5.9	1.3	4.5	1.4	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.47	0.47	<0.52	0.52	<0.54	0.54	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	0.429	0.047	0.592	0.052	0.587	0.054	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	3.11	0.0093	1.26	0.010	1.43	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.019	0.019	<0.021	0.021	<0.022	0.022	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.669	0.047	0.075	0.052	<0.054	0.054	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	11200	9.3	12300	10	12100	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	40.3	0.047	49.2	0.052	55.8	0.054	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	1.17	0.047	1.21	0.052	1.17	0.054	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0047	0.0047	<0.0052	0.0052	<0.0054	0.0054	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.368	0.047	0.229	0.052	0.176	0.054	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.019	0.019	<0.021	0.021	<0.022	0.022	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0188	0.0019	0.0172	0.0021	0.0204	0.0022	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.093	0.093	<0.10	0.10	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.813	0.093	0.85	0.10	0.83	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0019	0.0019	<0.0021	0.0021	<0.0022	0.0022	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.093	0.093	<0.10	0.10	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	12.7	0.19	16.1	0.21	15.0	0.22	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.19	0.19	<0.21	0.21	<0.22	0.22	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	1120	9.3	1020	10	868	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1410	1.9	1570	2.1	1550	2.2	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV046		NPV047		NPV048		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-02-01		
	UNITS	**WA-12 L.TISSUE**	**RDL**	**WA-13 L.TISSUE**	**RDL**	**WA-14 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	19500	9.3	22600	10	21700	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1500	9.3	2100	10	2200	11	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV049		NPV050		NPV051		NPV052		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-02-01		792731-02-01		
	UNITS	**WA-15 L.TISSUE**	**RDL**	**NP-1 L.TISSUE**	**RDL**	**NP-2 L.TISSUE**	**RDL**	**NP-3 L.TISSUE**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	1.09	0.93	1.6	1.0	<1.1	1.1	1.5	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0053	0.0053	<0.0054	0.0054	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.161	0.019	0.346	0.021	0.606	0.021	0.469	0.022	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.075	0.047	0.511	0.051	0.196	0.053	0.454	0.054	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0053	0.0053	<0.0054	0.0054	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0093	0.0047	0.0175	0.0051	0.0124	0.0053	0.0170	0.0054	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.93	0.93	<1.0	1.0	<1.1	1.1	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	0.0074	0.0053	0.0105	0.0054	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0645	0.0047	0.0468	0.0051	0.0344	0.0053	0.0359	0.0054	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.047	0.047	<0.051	0.051	<0.053	0.053	<0.054	0.054	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	<0.0058	0.0058	0.0155	0.0064	0.0118	0.0066	0.0192	0.0068	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.527	0.047	0.464	0.051	0.510	0.053	0.535	0.054	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	6.5	1.2	9.1	1.3	6.6	1.3	9.8	1.4	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.47	0.47	<0.51	0.51	<0.53	0.53	<0.54	0.54	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	0.561	0.047	4.11	0.051	2.00	0.053	3.70	0.054	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	1.80	0.0093	2.82	0.010	2.56	0.011	3.81	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.019	0.019	<0.021	0.021	<0.021	0.021	<0.022	0.022	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.047	0.047	<0.051	0.051	<0.053	0.053	<0.054	0.054	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	11800	9.3	14700	10	14300	11	13300	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	63.6	0.047	29.8	0.051	26.8	0.053	23.3	0.054	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	0.953	0.047	0.961	0.051	1.02	0.053	0.991	0.054	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0047	0.0047	<0.0051	0.0051	<0.0053	0.0053	<0.0054	0.0054	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.612	0.047	2.72	0.051	1.33	0.053	1.60	0.054	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.019	0.019	<0.021	0.021	<0.021	0.021	<0.022	0.022	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0157	0.0019	0.0104	0.0021	0.0143	0.0021	0.0096	0.0022	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.093	0.093	<0.10	0.10	<0.11	0.11	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.816	0.093	1.04	0.10	1.02	0.11	0.96	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0019	0.0019	<0.0021	0.0021	<0.0021	0.0021	<0.0022	0.0022	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.093	0.093	<0.10	0.10	<0.11	0.11	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	13.9	0.19	23.8	0.21	23.8	0.21	23.6	0.22	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.19	0.19	<0.21	0.21	<0.21	0.21	<0.22	0.22	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	1920	9.3	5410	10	3140	11	3240	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1450	1.9	1730	2.1	1670	2.1	1730	2.2	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV049		NPV050		NPV051		NPV052		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-02-01		792731-02-01		
	UNITS	**WA-15 L.TISSUE**	**RDL**	**NP-1 L.TISSUE**	**RDL**	**NP-2 L.TISSUE**	**RDL**	**NP-3 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	21000	9.3	21100	10	22500	11	20700	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1380	9.3	1910	10	2450	11	2380	11	7012815

RDL = Reportable Detection Limit
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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV053		NPV054		NPV055		NPV056		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-03-01		792731-03-01		
	UNITS	**NP-4 L.TISSUE**	**RDL**	**NP-5 L.TISSUE**	**RDL**	**NP-6 L.TISSUE**	**RDL**	**NP-7 L.TISSUE**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	4.60	0.99	2.6	1.0	11.2	1.0	13.4	0.99	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0050	0.0050	<0.0052	0.0052	<0.0050	0.0050	<0.0049	0.0049	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.588	0.020	0.239	0.021	0.338	0.020	0.525	0.020	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.484	0.050	0.200	0.052	0.451	0.050	0.211	0.049	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0050	0.0050	<0.0052	0.0052	<0.0050	0.0050	<0.0049	0.0049	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0135	0.0050	0.0112	0.0052	0.0105	0.0050	0.0150	0.0049	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.99	0.99	<1.0	1.0	<1.0	1.0	<0.99	0.99	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0057	0.0050	0.0067	0.0052	0.0052	0.0050	0.0068	0.0049	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0308	0.0050	0.0501	0.0052	0.0366	0.0050	0.0504	0.0049	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.056	0.050	<0.052	0.052	<0.050	0.050	<0.049	0.049	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0188	0.0062	0.0179	0.0065	0.0181	0.0063	0.0147	0.0062	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.593	0.050	0.527	0.052	0.562	0.050	0.601	0.049	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	13.3	1.2	11.3	1.3	11.9	1.3	11.4	1.2	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.50	0.50	<0.52	0.52	<0.50	0.50	<0.49	0.49	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	2.44	0.050	2.11	0.052	5.02	0.050	1.99	0.049	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	1.49	0.0099	2.97	0.010	1.38	0.010	2.06	0.0099	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.020	0.020	<0.021	0.021	<0.020	0.020	<0.020	0.020	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.050	0.050	<0.052	0.052	<0.050	0.050	<0.049	0.049	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	12300	9.9	12200	10	13600	10	12200	9.9	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	29.5	0.050	30.3	0.052	25.8	0.050	34.4	0.049	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	1.00	0.050	0.869	0.052	0.835	0.050	0.896	0.049	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0050	0.0050	<0.0052	0.0052	<0.0050	0.0050	<0.0049	0.0049	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	1.25	0.050	0.931	0.052	2.71	0.050	0.977	0.049	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.020	0.020	<0.021	0.021	<0.020	0.020	<0.020	0.020	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0106	0.0020	0.0094	0.0021	0.0112	0.0020	0.0165	0.0020	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.099	0.099	<0.10	0.10	<0.10	0.10	<0.099	0.099	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.941	0.099	0.81	0.10	0.95	0.10	0.931	0.099	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0020	0.0020	<0.0021	0.0021	0.0024	0.0020	0.0021	0.0020	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.099	0.099	<0.10	0.10	<0.10	0.10	<0.099	0.099	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	23.9	0.20	22.5	0.21	22.3	0.20	28.5	0.20	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.20	0.20	<0.21	0.21	<0.20	0.20	<0.20	0.20	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	2680	9.9	2150	10	4780	10	1920	9.9	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1490	2.0	1460	2.1	1630	2.0	1510	2.0	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV053		NPV054		NPV055		NPV056		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-02-01		792731-02-01		792731-03-01		792731-03-01		
	UNITS	**NP-4 L.TISSUE**	**RDL**	**NP-5 L.TISSUE**	**RDL**	**NP-6 L.TISSUE**	**RDL**	**NP-7 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	20200	9.9	20100	10	19700	10	20800	9.9	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1220	9.9	1820	10	2210	10	1200	9.9	7012815

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV057		NPV058		NPV059		NPV060		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-03-01		792731-03-01		792731-03-01		
	UNITS	**NP-8 L.TISSUE**	**RDL**	**NP-9 L.TISSUE**	**RDL**	**NP-10 L.TISSUE**	**RDL**	**NP-11 L.TISSUE**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	7.2	1.1	6.65	0.96	7.4	1.0	2.1	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0054	0.0054	<0.0048	0.0048	<0.0052	0.0052	<0.0053	0.0053	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.552	0.022	0.392	0.019	0.407	0.021	0.385	0.021	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.653	0.054	0.412	0.048	0.257	0.052	0.663	0.053	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0054	0.0054	<0.0048	0.0048	<0.0052	0.0052	<0.0053	0.0053	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0184	0.0054	0.0132	0.0048	0.0169	0.0052	0.0171	0.0053	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.1	1.1	<0.96	0.96	<1.0	1.0	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0078	0.0054	<0.0048	0.0048	<0.0052	0.0052	0.0058	0.0053	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0470	0.0054	0.0324	0.0048	0.0397	0.0052	0.0596	0.0053	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.054	0.054	<0.048	0.048	0.586	0.052	<0.053	0.053	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0190	0.0068	0.0211	0.0060	0.0197	0.0064	0.0146	0.0066	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.628	0.054	0.461	0.048	0.559	0.052	0.546	0.053	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	13.7	1.4	12.4	1.2	18.4	1.3	7.6	1.3	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.54	0.54	<0.48	0.48	<0.52	0.52	<0.53	0.53	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	4.97	0.054	3.38	0.048	2.89	0.052	5.89	0.053	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	2.96	0.011	1.89	0.0096	2.15	0.010	3.74	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.022	0.022	<0.019	0.019	0.026	0.021	<0.021	0.021	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.054	0.054	<0.048	0.048	<0.052	0.052	<0.053	0.053	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	13600	11	12300	9.6	13000	10	15900	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	27.9	0.054	23.7	0.048	25.4	0.052	35.9	0.053	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	0.973	0.054	0.817	0.048	1.17	0.052	0.829	0.053	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0054	0.0054	<0.0048	0.0048	<0.0052	0.0052	<0.0053	0.0053	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	2.72	0.054	2.00	0.048	1.19	0.052	3.73	0.053	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.022	0.022	<0.019	0.019	<0.021	0.021	<0.021	0.021	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0097	0.0022	0.0128	0.0019	0.0141	0.0021	0.0122	0.0021	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.11	0.11	<0.096	0.096	<0.10	0.10	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.92	0.11	1.12	0.096	1.09	0.10	1.17	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0022	0.0022	0.0022	0.0019	<0.0021	0.0021	<0.0021	0.0021	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.11	0.11	<0.096	0.096	<0.10	0.10	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	23.6	0.22	27.3	0.19	22.4	0.21	19.9	0.21	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.22	0.22	<0.19	0.19	<0.21	0.21	<0.21	0.21	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	4670	11	3440	9.6	2900	10	7340	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1660	2.2	1440	1.9	1620	2.1	1790	2.1	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV057		NPV058		NPV059		NPV060		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-03-01		792731-03-01		792731-03-01		
	UNITS	**NP-8 L.TISSUE**	**RDL**	**NP-9 L.TISSUE**	**RDL**	**NP-10 L.TISSUE**	**RDL**	**NP-11 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	20700	11	19100	9.6	20800	10	21900	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	1440	11	1350	9.6	1190	10	1920	11	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV061		NPV062		NPV063		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-03-01		792731-03-01		
	UNITS	**NP-12 L.TISSUE**	**RDL**	**NP-13 L.TISSUE**	**RDL**	**NP-14 L.TISSUE**	**RDL**	**QC Batch**
Metals								
Total (Dry Wt) Aluminum (Al)	mg/kg	6.9	1.1	1.09	0.91	1.9	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0054	0.0054	<0.0045	0.0045	<0.0054	0.0054	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.262	0.022	0.271	0.018	0.714	0.022	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.211	0.054	<0.045	0.045	0.313	0.054	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0054	0.0054	<0.0045	0.0045	<0.0054	0.0054	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0166	0.0054	0.0135	0.0045	0.0172	0.0054	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.1	1.1	<0.91	0.91	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	<0.0054	0.0054	<0.0045	0.0045	<0.0054	0.0054	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0585	0.0054	0.0393	0.0045	0.0316	0.0054	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.054	0.054	<0.045	0.045	<0.054	0.054	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0170	0.0068	0.0057	0.0057	0.0147	0.0068	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.567	0.054	0.438	0.045	0.553	0.054	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	15.0	1.4	4.8	1.1	7.3	1.4	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.54	0.54	<0.45	0.45	<0.54	0.54	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	2.85	0.054	0.572	0.045	4.93	0.054	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	2.17	0.011	1.75	0.0091	2.38	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.022	0.022	<0.018	0.018	<0.022	0.022	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.054	0.054	<0.045	0.045	<0.054	0.054	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	13000	11	10700	9.1	13600	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	35.7	0.054	31.3	0.045	23.9	0.054	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	0.942	0.054	0.859	0.045	0.921	0.054	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0054	0.0054	<0.0045	0.0045	<0.0054	0.0054	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	1.17	0.054	0.158	0.045	1.69	0.054	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.022	0.022	<0.018	0.018	<0.022	0.022	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0104	0.0022	0.0104	0.0018	0.0124	0.0022	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.11	0.11	<0.091	0.091	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	1.03	0.11	0.729	0.091	0.88	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0022	0.0022	<0.0018	0.0018	<0.0022	0.0022	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.11	0.11	<0.091	0.091	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	23.9	0.22	17.7	0.18	18.0	0.22	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.22	0.22	<0.18	0.18	<0.22	0.22	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	2570	11	733	9.1	3070	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1720	2.2	1400	1.8	1630	2.2	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV061		NPV062		NPV063		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-03-01		792731-03-01		
	UNITS	**NP-12 L.TISSUE**	**RDL**	**NP-13 L.TISSUE**	**RDL**	**NP-14 L.TISSUE**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	21300	11	18700	9.1	21600	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2400	11	1780	9.1	1380	11	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

Bureau Veritas Laboratories 6740 Campobello Road, Mississauga, Ontario, L5N 2L8 Tel: (905) 817-5700 Toll-Free: 800-563-6266 Fax: (905) 817-5777 www.bvlabs.com

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV064		NPV065		NPV066		NPV067		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-05-01		792731-05-01		792731-05-01		
	UNITS	**NP-15 L.TISSUE**	**RDL**	**WA-1 LIVER**	**RDL**	**WA-2 LIVER**	**RDL**	**WA-3 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	4.1	1.0	3.54	0.79	1.51	0.90	2.98	0.80	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0052	0.0052	<0.0040	0.0040	<0.0045	0.0045	<0.0040	0.0040	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.217	0.021	0.139	0.016	0.430	0.018	0.170	0.016	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.429	0.052	0.040	0.040	0.152	0.045	0.090	0.040	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0052	0.0052	<0.0040	0.0040	<0.0045	0.0045	<0.0040	0.0040	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0097	0.0052	0.0073	0.0040	0.0058	0.0045	0.0185	0.0040	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.0	1.0	<0.79	0.79	<0.90	0.90	<0.80	0.80	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0071	0.0052	2.20	0.0040	0.643	0.0045	0.865	0.0040	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0679	0.0052	0.0190	0.0040	0.0263	0.0045	0.0261	0.0040	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.052	0.052	<0.040	0.040	<0.045	0.045	<0.040	0.040	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0120	0.0065	1.32	0.0050	0.765	0.0056	1.60	0.0050	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	0.513	0.052	6.08	0.040	8.26	0.045	51.9	0.040	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	7.1	1.3	846	0.99	771	1.1	488	1.0	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.52	0.52	<0.40	0.40	<0.45	0.45	<0.40	0.40	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	4.55	0.052	3.27	0.040	6.79	0.045	4.35	0.040	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	2.96	0.010	0.825	0.0079	0.568	0.0090	0.718	0.0080	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	<0.021	0.021	0.418	0.016	0.778	0.018	0.476	0.016	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.052	0.052	0.084	0.040	0.451	0.045	0.063	0.040	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	13100	10	9350	7.9	13300	9.0	11100	8.0	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	36.5	0.052	22.5	0.040	35.6	0.045	27.6	0.040	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	0.762	0.052	3.94	0.040	4.02	0.045	3.99	0.040	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0052	0.0052	<0.0040	0.0040	<0.0045	0.0045	0.0877	0.0040	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	2.03	0.052	0.193	0.040	0.388	0.045	0.463	0.040	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.021	0.021	0.016	0.016	<0.018	0.018	<0.016	0.016	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0113	0.0021	0.0285	0.0016	0.0540	0.0018	0.0433	0.0016	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.10	0.10	0.084	0.079	0.094	0.090	0.092	0.080	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.95	0.10	0.633	0.079	0.959	0.090	0.773	0.080	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0021	0.0021	0.0018	0.0016	<0.0018	0.0018	0.0027	0.0016	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.10	0.10	0.229	0.079	0.101	0.090	0.169	0.080	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	19.9	0.21	65.2	0.16	90.9	0.18	106	0.16	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.21	0.21	<0.16	0.16	<0.18	0.18	<0.16	0.16	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	4150	10	356	7.9	637	9.0	825	8.0	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1510	2.1	589	1.6	755	1.8	688	1.6	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV064		NPV065		NPV066		NPV067		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-03-01		792731-05-01		792731-05-01		792731-05-01		
	UNITS	**NP-15 L.TISSUE**	**RDL**	**WA-1 LIVER**	**RDL**	**WA-2 LIVER**	**RDL**	**WA-3 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	19500	10	10200	7.9	13100	9.0	10800	8.0	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2160	10	5960	7.9	5300	9.0	5220	8.0	7012815

RDL = Reportable Detection Limit
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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV068		NPV069		NPV070		NPV071		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-05-01		792731-05-01		792731-05-01		792731-05-01		
	UNITS	**WA-4 LIVER**	**RDL**	**WA-5 LIVER**	**RDL**	**WA-6 LIVER**	**RDL**	**WA-7 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	2.12	0.84	3.9	1.4	3.85	0.85	4.82	0.83	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0042	0.0042	<0.0070	0.0070	<0.0042	0.0042	<0.0041	0.0041	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.142	0.017	0.794	0.028	0.086	0.017	0.274	0.017	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.052	0.042	0.166	0.070	0.046	0.042	0.066	0.041	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0042	0.0042	<0.0070	0.0070	<0.0042	0.0042	<0.0041	0.0041	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0064	0.0042	0.0117	0.0070	0.0164	0.0042	0.0077	0.0041	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.84	0.84	<1.4	1.4	<0.85	0.85	<0.83	0.83	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	1.37	0.0042	1.19	0.0070	1.12	0.0042	1.22	0.0041	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0317	0.0042	0.0562	0.0070	0.0297	0.0042	0.0305	0.0041	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.042	0.042	0.083	0.070	<0.042	0.042	0.057	0.041	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.970	0.0052	0.695	0.0087	0.223	0.0053	0.829	0.0052	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	6.32	0.042	9.81	0.070	3.12	0.042	7.61	0.041	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	550	1.0	822	1.7	133	1.1	709	1.0	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.42	0.42	<0.70	0.70	<0.42	0.42	<0.41	0.41	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	6.72	0.042	8.86	0.070	4.97	0.042	6.40	0.041	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.507	0.0084	0.685	0.014	6.12	0.0085	0.533	0.0083	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.572	0.017	0.920	0.028	0.344	0.017	0.778	0.017	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.087	0.042	0.128	0.070	<0.042	0.042	0.092	0.041	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	12900	8.4	20200	14	10800	8.5	13300	8.3	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	33.9	0.042	58.5	0.070	29.8	0.042	32.1	0.041	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	4.38	0.042	5.63	0.070	3.64	0.042	3.86	0.041	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0042	0.0042	<0.0070	0.0070	<0.0042	0.0042	<0.0041	0.0041	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.254	0.042	0.229	0.070	0.127	0.042	0.276	0.041	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.017	0.017	<0.028	0.028	0.054	0.017	<0.017	0.017	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0549	0.0017	0.0844	0.0028	0.0325	0.0017	0.0519	0.0017	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.084	0.084	<0.14	0.14	0.105	0.085	0.102	0.083	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.967	0.084	1.46	0.14	0.721	0.085	1.06	0.083	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0017	0.0017	<0.0028	0.0028	0.0046	0.0017	<0.0017	0.0017	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.084	0.084	<0.14	0.14	0.124	0.085	<0.083	0.083	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	80.5	0.17	132	0.28	64.0	0.17	91.7	0.17	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.17	0.17	<0.28	0.28	<0.17	0.17	<0.17	0.17	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	588	8.4	396	14	259	8.5	359	8.3	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	792	1.7	1170	2.8	664	1.7	807	1.7	7012815

RDL = Reportable Detection Limit
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Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV068		NPV069		NPV070		NPV071		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-05-01		792731-05-01		792731-05-01		792731-05-01		
	UNITS	**WA-4 LIVER**	**RDL**	**WA-5 LIVER**	**RDL**	**WA-6 LIVER**	**RDL**	**WA-7 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	12200	8.4	19900	14	10000	8.5	11500	8.3	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	4750	8.4	7450	14	4580	8.5	5020	8.3	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV072		NPV073		NPV074		NPV075		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-05-01		792731-05-01		792731-05-01		792731-06-01		
	UNITS	**WA-8 LIVER**	**RDL**	**WA-9 LIVER**	**RDL**	**WA-10 LIVER**	**RDL**	**WA-11 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	3.45	0.69	2.20	0.89	2.75	0.73	2.00	0.89	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0035	0.0035	<0.0044	0.0044	<0.0037	0.0037	<0.0044	0.0044	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.167	0.014	0.139	0.018	0.128	0.015	0.248	0.018	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	<0.035	0.035	<0.044	0.044	0.044	0.037	<0.044	0.044	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0035	0.0035	<0.0044	0.0044	<0.0037	0.0037	<0.0044	0.0044	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0046	0.0035	<0.0044	0.0044	<0.0037	0.0037	0.0068	0.0044	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.69	0.69	<0.89	0.89	<0.73	0.73	<0.89	0.89	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.305	0.0035	0.351	0.0044	0.714	0.0037	0.401	0.0044	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0285	0.0035	0.0352	0.0044	0.0310	0.0037	0.0312	0.0044	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.035	0.035	<0.044	0.044	<0.037	0.037	<0.044	0.044	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.396	0.0043	0.540	0.0056	0.674	0.0046	0.585	0.0056	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	3.98	0.035	5.38	0.044	5.82	0.037	6.38	0.044	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	429	0.87	694	1.1	279	0.91	824	1.1	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.35	0.35	<0.44	0.44	<0.37	0.37	<0.44	0.44	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	3.00	0.035	4.30	0.044	4.99	0.037	4.52	0.044	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.445	0.0069	0.493	0.0089	0.357	0.0073	0.433	0.0089	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.385	0.014	0.505	0.018	0.413	0.015	0.461	0.018	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.069	0.035	0.071	0.044	0.047	0.037	0.074	0.044	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	9570	6.9	11300	8.9	10100	7.3	11300	8.9	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	28.0	0.035	35.6	0.044	44.5	0.037	33.3	0.044	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	2.76	0.035	3.52	0.044	3.29	0.037	3.94	0.044	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0035	0.0035	<0.0044	0.0044	<0.0037	0.0037	<0.0044	0.0044	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.124	0.035	0.169	0.044	0.219	0.037	0.188	0.044	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.014	0.014	<0.018	0.018	<0.015	0.015	<0.018	0.018	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0271	0.0014	0.0336	0.0018	0.0616	0.0015	0.0357	0.0018	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.069	0.069	<0.089	0.089	0.091	0.073	<0.089	0.089	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.682	0.069	0.765	0.089	0.701	0.073	0.524	0.089	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0014	0.0014	<0.0018	0.0018	0.0015	0.0015	<0.0018	0.0018	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.069	0.069	<0.089	0.089	<0.073	0.073	<0.089	0.089	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	54.2	0.14	72.6	0.18	64.3	0.15	74.8	0.18	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.14	0.14	<0.18	0.18	<0.15	0.15	<0.18	0.18	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	247	6.9	319	8.9	461	7.3	335	8.9	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	608	1.4	682	1.8	593	1.5	709	1.8	7012815

RDL = Reportable Detection Limit
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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV072		NPV073		NPV074		NPV075		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-05-01		792731-05-01		792731-05-01		792731-06-01		
	UNITS	**WA-8 LIVER**	**RDL**	**WA-9 LIVER**	**RDL**	**WA-10 LIVER**	**RDL**	**WA-11 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	10600	6.9	13600	8.9	10400	7.3	12400	8.9	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	3340	6.9	4770	8.9	4470	7.3	5600	8.9	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV076		NPV077		NPV078		NPV079		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-06-01		792731-06-01		792731-06-01		
	UNITS	**WA-12 LIVER**	**RDL**	**WA-13 LIVER**	**RDL**	**WA-14 LIVER**	**RDL**	**WA-15 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	4.15	0.82	1.87	0.77	1.9	1.1	1.25	0.78	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0041	0.0041	<0.0039	0.0039	<0.0056	0.0056	<0.0039	0.0039	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.279	0.016	0.392	0.015	0.205	0.022	0.219	0.016	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.061	0.041	0.064	0.039	0.067	0.056	0.044	0.039	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0041	0.0041	<0.0039	0.0039	<0.0056	0.0056	<0.0039	0.0039	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0093	0.0041	0.0040	0.0039	0.0073	0.0056	0.0057	0.0039	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.82	0.82	<0.77	0.77	<1.1	1.1	<0.78	0.78	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	2.18	0.0041	0.417	0.0039	0.665	0.0056	0.670	0.0039	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0236	0.0041	0.0271	0.0039	0.0399	0.0056	0.0365	0.0039	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.041	0.041	0.054	0.039	<0.056	0.056	<0.039	0.039	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	1.68	0.0051	0.710	0.0048	0.420	0.0070	0.294	0.0048	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	7.47	0.041	5.52	0.039	7.28	0.056	6.45	0.039	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	675	1.0	532	0.97	634	1.4	578	0.97	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.41	0.41	<0.39	0.39	<0.56	0.56	<0.39	0.39	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	6.24	0.041	4.05	0.039	6.15	0.056	8.09	0.039	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	1.29	0.0082	0.376	0.0077	0.548	0.011	0.538	0.0078	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.575	0.016	0.615	0.015	0.775	0.022	0.427	0.016	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.111	0.041	0.081	0.039	0.091	0.056	0.051	0.039	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	12600	8.2	11500	7.7	15400	11	13900	7.8	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	25.3	0.041	27.6	0.039	45.4	0.056	45.6	0.039	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	4.90	0.041	3.32	0.039	4.84	0.056	3.52	0.039	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0041	0.0041	<0.0039	0.0039	<0.0056	0.0056	<0.0039	0.0039	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.254	0.041	0.244	0.039	0.291	0.056	0.286	0.039	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	0.028	0.016	<0.015	0.015	<0.022	0.022	<0.016	0.016	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0442	0.0016	0.0344	0.0015	0.0593	0.0022	0.0450	0.0016	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	0.091	0.082	0.093	0.077	<0.11	0.11	0.087	0.078	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.575	0.082	0.638	0.077	0.70	0.11	0.691	0.078	7012815
Total (Dry Wt) Uranium (U)	mg/kg	0.0039	0.0016	<0.0015	0.0015	<0.0022	0.0022	<0.0016	0.0016	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	0.192	0.082	<0.077	0.077	<0.11	0.11	<0.078	0.078	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	77.5	0.16	73.1	0.15	89.0	0.22	79.1	0.16	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.16	0.16	<0.15	0.15	<0.22	0.22	<0.16	0.16	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	481	8.2	429	7.7	616	11	509	7.8	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	778	1.6	711	1.5	974	2.2	803	1.6	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV076		NPV077		NPV078		NPV079		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-06-01		792731-06-01		792731-06-01		
	UNITS	**WA-12 LIVER**	**RDL**	**WA-13 LIVER**	**RDL**	**WA-14 LIVER**	**RDL**	**WA-15 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	12000	8.2	11500	7.7	15000	11	13000	7.8	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	5620	8.2	4400	7.7	5930	11	4540	7.8	7012815

RDL = Reportable Detection Limit
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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV080		NPV081		NPV082		NPV083		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-06-01		792731-06-01		792731-06-01		
	UNITS	**NP-1 LIVER**	**RDL**	**NP-2 LIVER**	**RDL**	**NP-3 LIVER**	**RDL**	**NP-4 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	5.76	0.54	3.10	0.75	20.3	0.60	3.98	0.54	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	0.0055	0.0027	<0.0038	0.0038	0.0198	0.0030	0.0044	0.0027	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.127	0.011	0.152	0.015	0.177	0.012	0.213	0.011	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.037	0.027	<0.038	0.038	0.059	0.030	0.048	0.027	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0027	0.0027	<0.0038	0.0038	<0.0030	0.0030	<0.0027	0.0027	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0215	0.0027	0.0156	0.0038	0.0849	0.0030	0.0168	0.0027	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.54	0.54	<0.75	0.75	<0.60	0.60	<0.54	0.54	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.366	0.0027	0.498	0.0038	1.20	0.0030	0.469	0.0027	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0090	0.0027	0.0277	0.0038	0.0096	0.0030	0.0117	0.0027	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.029	0.027	<0.038	0.038	0.048	0.030	0.028	0.027	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.149	0.0034	0.103	0.0047	0.313	0.0038	0.196	0.0034	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	103	0.027	42.7	0.038	210	0.030	129	0.027	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	756	0.68	389	0.94	390	0.75	1570	0.68	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.27	0.27	<0.38	0.38	<0.30	0.30	<0.27	0.27	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	2.27	0.027	4.34	0.038	4.04	0.030	4.15	0.027	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.654	0.0054	0.846	0.0075	2.00	0.0060	0.512	0.0054	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.569	0.011	0.349	0.015	1.05	0.012	0.838	0.011	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.073	0.027	0.046	0.038	0.181	0.030	0.080	0.027	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	6720	5.4	9940	7.5	8970	6.0	9430	5.4	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	13.9	0.027	25.9	0.038	15.9	0.030	16.3	0.027	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	7.80	0.027	7.11	0.038	11.3	0.030	10.3	0.027	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	0.513	0.0027	0.0994	0.0038	0.703	0.0030	0.301	0.0027	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.093	0.027	0.066	0.038	0.105	0.030	0.162	0.027	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	0.017	0.011	<0.015	0.015	0.045	0.012	0.014	0.011	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0100	0.0011	0.0163	0.0015	0.0112	0.0012	0.0128	0.0011	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.054	0.054	<0.075	0.075	<0.060	0.060	0.078	0.054	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.328	0.054	0.473	0.075	0.535	0.060	0.537	0.054	7012815
Total (Dry Wt) Uranium (U)	mg/kg	0.0014	0.0011	0.0026	0.0015	0.0056	0.0012	<0.0011	0.0011	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	1.35	0.054	0.477	0.075	4.55	0.060	0.580	0.054	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	148	0.11	133	0.15	209	0.12	200	0.11	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.11	0.11	<0.15	0.15	<0.12	0.12	<0.11	0.11	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	138	5.4	123	7.5	131	6.0	236	5.4	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	380	1.1	609	1.5	493	1.2	582	1.1	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV080		NPV081		NPV082		NPV083		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-06-01		792731-06-01		792731-06-01		
	UNITS	**NP-1 LIVER**	**RDL**	**NP-2 LIVER**	**RDL**	**NP-3 LIVER**	**RDL**	**NP-4 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	6900	5.4	12400	7.5	9150	6.0	8140	5.4	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2350	5.4	2910	7.5	2720	6.0	2320	5.4	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV084		NPV085		NPV086		NPV087		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-07-01		792731-07-01		792731-07-01		
	UNITS	**NP-5 LIVER**	**RDL**	**NP-6 LIVER**	**RDL**	**NP-7 LIVER**	**RDL**	**NP-8 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	17.5	0.91	3.48	0.60	6.44	0.56	6.02	0.49	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	0.0088	0.0046	0.0059	0.0030	<0.0028	0.0028	0.0080	0.0025	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.202	0.018	0.152	0.012	0.238	0.011	0.154	0.0099	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.084	0.046	0.045	0.030	0.078	0.028	0.045	0.025	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0046	0.0046	<0.0030	0.0030	<0.0028	0.0028	<0.0025	0.0025	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0306	0.0046	0.0132	0.0030	0.0224	0.0028	0.0254	0.0025	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.91	0.91	<0.60	0.60	<0.56	0.56	<0.49	0.49	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	1.50	0.0046	0.521	0.0030	0.574	0.0028	0.880	0.0025	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0237	0.0046	0.0117	0.0030	0.0139	0.0028	0.0115	0.0025	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.058	0.046	0.031	0.030	0.041	0.028	0.026	0.025	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.337	0.0057	0.175	0.0038	0.168	0.0035	0.227	0.0031	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	112	0.046	101	0.030	122	0.028	131	0.025	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	451	1.1	860	0.75	715	0.70	1320	0.62	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.46	0.46	<0.30	0.30	<0.28	0.28	<0.25	0.25	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	6.67	0.046	4.13	0.030	4.19	0.028	3.21	0.025	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	2.03	0.0091	0.538	0.0060	0.803	0.0056	0.947	0.0049	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	1.03	0.018	0.780	0.012	0.764	0.011	0.607	0.0099	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.171	0.046	0.092	0.030	0.072	0.028	0.120	0.025	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	15700	9.1	9490	6.0	8210	5.6	7350	4.9	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	32.7	0.046	12.5	0.030	15.9	0.028	11.4	0.025	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	9.44	0.046	8.00	0.030	7.09	0.028	7.86	0.025	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	0.279	0.0046	0.376	0.0030	0.489	0.0028	0.779	0.0025	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.200	0.046	0.195	0.030	0.162	0.028	0.170	0.025	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	0.021	0.018	0.016	0.012	0.013	0.011	0.0159	0.0099	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0170	0.0018	0.0117	0.0012	0.0148	0.0011	0.00850	0.00099	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.091	0.091	0.078	0.060	<0.056	0.056	<0.049	0.049	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.896	0.091	0.505	0.060	0.508	0.056	0.335	0.049	7012815
Total (Dry Wt) Uranium (U)	mg/kg	0.0085	0.0018	<0.0012	0.0012	<0.0011	0.0011	0.00220	0.00099	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	1.92	0.091	0.494	0.060	0.676	0.056	1.89	0.049	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	248	0.18	259	0.12	228	0.11	143	0.099	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.18	0.18	<0.12	0.12	<0.11	0.11	<0.099	0.099	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	310	9.1	361	6.0	160	5.6	174	4.9	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	967	1.8	564	1.2	483	1.1	440	0.99	7012815

RDL = Reportable Detection Limit
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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV084		NPV085		NPV086		NPV087		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-06-01		792731-07-01		792731-07-01		792731-07-01		
	UNITS	**NP-5 LIVER**	**RDL**	**NP-6 LIVER**	**RDL**	**NP-7 LIVER**	**RDL**	**NP-8 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	13600	9.1	7280	6.0	7360	5.6	6820	4.9	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	4830	9.1	2510	6.0	2350	5.6	2280	4.9	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV088		NPV089		NPV090		NPV091		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-07-01		792731-07-01		792731-07-01		792731-07-01		
	UNITS	**NP-9 LIVER**	**RDL**	**NP-10 LIVER**	**RDL**	**NP-11 LIVER**	**RDL**	**NP-12 LIVER**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	4.11	0.64	4.72	0.62	11.6	0.90	4.48	0.62	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	0.0038	0.0032	0.0048	0.0031	0.0087	0.0045	0.0050	0.0031	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.148	0.013	0.175	0.012	0.216	0.018	0.110	0.012	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.056	0.032	0.049	0.031	0.066	0.045	0.062	0.031	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0032	0.0032	<0.0031	0.0031	<0.0045	0.0045	<0.0031	0.0031	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0166	0.0032	0.0236	0.0031	0.0462	0.0045	0.0246	0.0031	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.64	0.64	<0.62	0.62	<0.90	0.90	<0.62	0.62	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.385	0.0032	0.611	0.0031	0.978	0.0045	0.245	0.0031	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0131	0.0032	0.0120	0.0031	0.0292	0.0045	0.0200	0.0031	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.045	0.032	0.061	0.031	<0.045	0.045	0.293	0.031	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.257	0.0040	0.213	0.0039	0.297	0.0056	0.161	0.0039	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	94.9	0.032	143	0.031	155	0.045	96.2	0.031	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	674	0.80	625	0.77	251	1.1	401	0.77	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.32	0.32	<0.31	0.31	<0.45	0.45	<0.31	0.31	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	3.80	0.032	4.80	0.031	6.30	0.045	4.50	0.031	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.717	0.0064	0.735	0.0062	2.55	0.0090	0.768	0.0062	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.585	0.013	0.871	0.012	1.06	0.018	0.645	0.012	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.088	0.032	0.104	0.031	0.147	0.045	0.076	0.031	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	11200	6.4	9530	6.2	16400	9.0	9040	6.2	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	14.2	0.032	15.1	0.031	34.9	0.045	21.6	0.031	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	9.32	0.032	9.37	0.031	10.3	0.045	7.28	0.031	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	0.320	0.0032	0.386	0.0031	0.807	0.0045	0.324	0.0031	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.143	0.032	0.135	0.031	0.247	0.045	0.224	0.031	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.013	0.013	0.022	0.012	0.038	0.018	0.015	0.012	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0110	0.0013	0.0122	0.0012	0.0239	0.0018	0.0107	0.0012	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.064	0.064	<0.062	0.062	<0.090	0.090	0.121	0.062	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.584	0.064	0.544	0.062	0.800	0.090	0.542	0.062	7012815
Total (Dry Wt) Uranium (U)	mg/kg	0.0025	0.0013	0.0012	0.0012	0.0141	0.0018	0.0015	0.0012	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	1.40	0.064	0.517	0.062	2.71	0.090	0.408	0.062	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	216	0.13	231	0.12	246	0.18	237	0.12	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.13	0.13	<0.12	0.12	<0.18	0.18	<0.12	0.12	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	193	6.4	213	6.2	376	9.0	472	6.2	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	647	1.3	609	1.2	909	1.8	545	1.2	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV088		NPV089		NPV090		NPV091		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-07-01		792731-07-01		792731-07-01		792731-07-01		
	UNITS	**NP-9 LIVER**	**RDL**	**NP-10 LIVER**	**RDL**	**NP-11 LIVER**	**RDL**	**NP-12 LIVER**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	9650	6.4	8520	6.2	15000	9.0	7590	6.2	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2710	6.4	2590	6.2	4360	9.0	2440	6.2	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV092		NPV093		NPV094		NPV095		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-07-01		792731-07-01		792731-07-01		792731-08-01		
	UNITS	**NP-13 LIVER**	**RDL**	**NP-14 LIVER**	**RDL**	**NP-15 LIVER**	**RDL**	**WA-7- GONAD**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	0.80	0.67	3.10	0.47	11.9	0.84	34.6	2.0	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0034	0.0034	0.0030	0.0023	0.0061	0.0042	<0.0082	0.0082	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.082	0.013	0.197	0.0093	0.192	0.017	0.255	0.020	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	<0.034	0.034	0.039	0.023	0.071	0.042	0.262	0.041	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0034	0.0034	<0.0023	0.0023	<0.0042	0.0042	<0.0082	0.0082	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0162	0.0034	0.0118	0.0023	0.0476	0.0042	0.0080	0.0051	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.67	0.67	<0.47	0.47	<0.84	0.84	<0.82	0.82	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.102	0.0034	0.237	0.0023	1.36	0.0042	0.0486	0.0051	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0196	0.0034	0.0043	0.0023	0.0372	0.0042	0.0748	0.0041	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.034	0.034	0.027	0.023	0.116	0.042	0.46	0.10	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.0514	0.0042	0.144	0.0029	0.414	0.0053	0.209	0.0051	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	34.6	0.034	57.6	0.023	207	0.042	4.39	0.051	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	68.8	0.84	926	0.58	743	1.1	146	1.0	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.34	0.34	<0.23	0.23	<0.42	0.42	<0.41	0.41	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	3.17	0.034	2.16	0.023	5.80	0.042	2.44	0.041	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.611	0.0067	0.341	0.0047	1.85	0.0084	0.278	0.051	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.284	0.013	0.419	0.0093	1.14	0.017	0.063	0.033	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	<0.034	0.034	0.062	0.023	0.167	0.042	0.181	0.041	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	7740	6.7	5360	4.7	11700	8.4	24500	8.2	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	26.2	0.034	6.43	0.023	35.6	0.042	70.2	0.041	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	5.83	0.034	5.12	0.023	10.7	0.042	5.02	0.041	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	0.0565	0.0034	0.174	0.0023	0.537	0.0042	<0.0051	0.0051	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.073	0.034	0.105	0.023	0.235	0.042	0.482	0.051	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.013	0.013	<0.0093	0.0093	0.027	0.017	<0.016	0.016	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0083	0.0013	0.00880	0.00093	0.0167	0.0017	0.0422	0.0016	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.067	0.067	0.051	0.047	0.115	0.084	<0.082	0.082	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.399	0.067	0.222	0.047	0.733	0.084	3.27	0.51	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0013	0.0013	0.00210	0.00093	0.0031	0.0017	<0.0016	0.0016	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	0.131	0.067	0.619	0.047	1.19	0.084	<0.082	0.082	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	141	0.13	76.9	0.093	260	0.17	937	0.82	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.13	0.13	<0.093	0.093	<0.17	0.17	<0.16	0.16	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	149	6.7	151	4.7	307	8.4	712	16	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	486	1.3	328	0.93	683	1.7	1660	1.6	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV092		NPV093		NPV094		NPV095		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-07-01		792731-07-01		792731-07-01		792731-08-01		
	UNITS	**NP-13 LIVER**	**RDL**	**NP-14 LIVER**	**RDL**	**NP-15 LIVER**	**RDL**	**WA-7- GONAD**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	9540	6.7	5000	4.7	11700	8.4	26100	10	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2530	6.7	2160	4.7	4990	8.4	3340	10	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV096		NPV097		NPV098		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-08-01		
	UNITS	**WA-13- GONAD**	**RDL**	**WA-11- GONAD**	**RDL**	**WA-15- GONAD**	**RDL**	**QC Batch**
Metals								
Total (Dry Wt) Aluminum (Al)	mg/kg	9.8	2.0	5.4	2.3	1.15	0.67	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0082	0.0082	<0.0090	0.0090	<0.0033	0.0033	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.193	0.020	0.099	0.023	0.107	0.013	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.242	0.041	0.062	0.045	0.100	0.033	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0082	0.0082	<0.0090	0.0090	<0.0033	0.0033	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0085	0.0051	0.0064	0.0056	<0.0033	0.0033	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.82	0.82	<0.90	0.90	<0.67	0.67	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0230	0.0051	0.0170	0.0056	0.0117	0.0033	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0543	0.0041	0.0865	0.0045	0.0443	0.0033	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.32	0.10	0.13	0.11	<0.033	0.033	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.198	0.0051	0.555	0.0056	0.186	0.0042	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	3.51	0.051	3.90	0.056	3.37	0.033	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	139	1.0	156	1.1	65.9	0.84	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.41	0.41	<0.45	0.45	<0.33	0.33	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	2.70	0.041	1.24	0.045	13.8	0.033	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.396	0.051	0.296	0.056	0.138	0.0067	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.078	0.033	0.075	0.036	0.048	0.013	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.134	0.041	0.056	0.045	0.035	0.033	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	23800	8.2	28200	9.0	11100	6.7	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	53.9	0.041	85.2	0.045	37.9	0.033	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	6.85	0.041	5.55	0.045	3.14	0.033	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0051	0.0051	<0.0056	0.0056	<0.0033	0.0033	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	1.00	0.051	0.336	0.056	0.231	0.033	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.016	0.016	<0.018	0.018	<0.013	0.013	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0338	0.0016	0.0505	0.0018	0.0238	0.0013	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.082	0.082	<0.090	0.090	<0.067	0.067	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	2.26	0.51	2.17	0.56	0.552	0.067	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0016	0.0016	<0.0018	0.0018	<0.0013	0.0013	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.082	0.082	<0.090	0.090	<0.067	0.067	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	870	0.82	928	0.90	133	0.13	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.16	0.16	<0.18	0.18	<0.13	0.13	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	1610	16	512	18	964	6.7	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1510	1.6	1460	1.8	1150	1.3	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV096		NPV097		NPV098		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-08-01		
	UNITS	**WA-13- GONAD**	**RDL**	**WA-11- GONAD**	**RDL**	**WA-15- GONAD**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	24500	10	32800	11	11800	6.7	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	2580	10	2790	11	2630	6.7	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV099		NPV100		NPV101		NPV102		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-08-01		792731-08-01		
	UNITS	**WA-5- GONAD**	**RDL**	**WA-6- GONAD**	**RDL**	**WA-2- GONAD**	**RDL**	**WA-9- GONAD**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	21.8	2.2	2.64	0.70	10.8	2.1	4.92	0.90	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0089	0.0089	<0.0035	0.0035	<0.0085	0.0085	<0.0045	0.0045	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.187	0.022	0.048	0.014	0.262	0.021	0.115	0.018	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.354	0.044	0.113	0.035	0.220	0.043	0.108	0.045	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0089	0.0089	<0.0035	0.0035	<0.0085	0.0085	<0.0045	0.0045	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	0.0081	0.0056	0.0112	0.0035	0.0066	0.0053	<0.0045	0.0045	7012815
Total (Dry Wt) Boron (B)	mg/kg	<0.89	0.89	<0.70	0.70	<0.85	0.85	8.79	0.90	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0230	0.0056	0.0333	0.0035	0.0288	0.0053	0.0108	0.0045	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0811	0.0044	0.0421	0.0035	0.0764	0.0043	0.0685	0.0045	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.29	0.11	<0.035	0.035	0.26	0.11	0.050	0.045	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.283	0.0056	0.120	0.0044	0.402	0.0053	0.0388	0.0056	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	4.03	0.056	2.43	0.035	4.77	0.053	1.91	0.045	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	111	1.1	76.1	0.88	230	1.1	110	1.1	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.44	0.44	<0.35	0.35	<0.43	0.43	<0.45	0.45	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	2.61	0.044	7.32	0.035	2.46	0.043	2.30	0.045	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.253	0.056	1.60	0.0070	0.283	0.053	0.306	0.0090	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.076	0.036	0.033	0.014	0.089	0.034	0.019	0.018	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.186	0.044	0.041	0.035	0.666	0.043	0.085	0.045	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	25800	8.9	8920	7.0	25900	8.5	23800	9.0	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	67.0	0.044	25.5	0.035	77.3	0.043	66.8	0.045	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	5.96	0.044	2.05	0.035	7.01	0.043	2.17	0.045	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0056	0.0056	<0.0035	0.0035	<0.0053	0.0053	<0.0045	0.0045	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.434	0.056	0.187	0.035	0.724	0.053	0.225	0.045	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.018	0.018	<0.014	0.014	<0.017	0.017	<0.018	0.018	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0500	0.0018	0.0173	0.0014	0.0562	0.0017	0.0552	0.0018	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.089	0.089	0.090	0.070	<0.085	0.085	<0.090	0.090	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	2.42	0.56	0.513	0.070	2.16	0.53	1.25	0.090	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0018	0.0018	<0.0014	0.0014	<0.0017	0.0017	0.0028	0.0018	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.089	0.089	<0.070	0.070	<0.085	0.085	<0.090	0.090	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	1030	0.89	73.8	0.14	987	0.85	91.7	0.18	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.18	0.18	<0.14	0.14	<0.17	0.17	<0.18	0.18	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	696	18	832	7.0	905	17	250	9.0	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1740	1.8	966	1.4	1610	1.7	1160	1.8	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV099		NPV100		NPV101		NPV102		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-08-01		792731-08-01		
	UNITS	**WA-5- GONAD**	**RDL**	**WA-6- GONAD**	**RDL**	**WA-2- GONAD**	**RDL**	**WA-9- GONAD**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	29200	11	8680	7.0	30100	11	23900	9.0	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	4540	11	4210	7.0	3450	11	3880	9.0	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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BV Labs Job #: C0N7925
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EcoMetrix Incorporated
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Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV103		NPV104		NPV105		NPV106		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-09-01		792731-09-01		
	UNITS	**NP-5- GONAD**	**RDL**	**NP-2- GONAD**	**RDL**	**NP-11 GONAD**	**RDL**	**NP-9 GONAD**	**RDL**	**QC Batch**
Metals										
Total (Dry Wt) Aluminum (Al)	mg/kg	22.3	1.1	2.5	1.1	4.1	1.2	9.4	1.2	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0057	0.0057	<0.0057	0.0057	<0.0058	0.0058	<0.0061	0.0061	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.125	0.023	0.198	0.023	0.160	0.023	0.223	0.024	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.160	0.057	0.133	0.057	0.143	0.058	0.154	0.061	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0057	0.0057	<0.0057	0.0057	<0.0058	0.0058	<0.0061	0.0061	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	<0.0057	0.0057	<0.0057	0.0057	<0.0058	0.0058	<0.0061	0.0061	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.1	1.1	<1.1	1.1	<1.2	1.2	<1.2	1.2	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.108	0.0057	0.168	0.0057	0.0976	0.0058	0.0402	0.0061	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0487	0.0057	0.0447	0.0057	0.0544	0.0058	0.0416	0.0061	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	0.075	0.057	<0.057	0.057	0.079	0.058	0.221	0.061	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.369	0.0072	0.283	0.0071	0.431	0.0073	0.533	0.0076	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	5.09	0.057	4.25	0.057	6.19	0.058	5.60	0.061	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	276	1.4	173	1.4	332	1.5	308	1.5	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.57	0.57	<0.57	0.57	<0.58	0.58	<0.61	0.61	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	205	0.057	68.2	0.057	240	0.058	134	0.061	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.488	0.011	0.532	0.011	0.482	0.012	0.258	0.012	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.330	0.023	0.080	0.023	0.291	0.023	0.332	0.024	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.085	0.057	0.069	0.057	0.082	0.058	0.093	0.061	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	17900	11	17900	11	17300	12	18400	12	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	42.6	0.057	34.0	0.057	44.8	0.058	38.1	0.061	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	4.58	0.057	6.24	0.057	5.33	0.058	5.05	0.061	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0057	0.0057	<0.0057	0.0057	<0.0058	0.0058	<0.0061	0.0061	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.412	0.057	1.25	0.057	0.629	0.058	0.285	0.061	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.023	0.023	<0.023	0.023	<0.023	0.023	<0.024	0.024	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0236	0.0023	0.0278	0.0023	0.0226	0.0023	0.0237	0.0024	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.11	0.11	0.12	0.11	0.12	0.12	<0.12	0.12	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	1.61	0.11	0.92	0.11	0.88	0.12	1.11	0.12	7012815
Total (Dry Wt) Uranium (U)	mg/kg	0.0039	0.0023	0.0027	0.0023	0.0030	0.0023	<0.0024	0.0024	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	0.35	0.11	0.11	0.11	0.34	0.12	0.41	0.12	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	493	0.23	495	0.23	337	0.23	406	0.24	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.23	0.23	<0.23	0.23	<0.23	0.23	<0.24	0.24	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	974	11	2770	11	1340	12	619	12	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1270	2.3	1160	2.3	1250	2.3	1390	2.4	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV103		NPV104		NPV105		NPV106		
Sampling Date		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		2020/09/13 10:00		
COC Number		792731-08-01		792731-08-01		792731-09-01		792731-09-01		
	UNITS	**NP-5- GONAD**	**RDL**	**NP-2- GONAD**	**RDL**	**NP-11 GONAD**	**RDL**	**NP-9 GONAD**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	23700	11	23100	11	22700	12	25000	12	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	3580	11	5090	11	4770	12	3900	12	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

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ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV107		
Sampling Date		2020/09/13 10:00		
COC Number		792731-09-01		
	UNITS	**NP-13 GONAD**	**RDL**	**QC Batch**
Metals				
Total (Dry Wt) Aluminum (Al)	mg/kg	1.4	1.1	7012815
Total (Dry Wt) Antimony (Sb)	mg/kg	<0.0053	0.0053	7012815
Total (Dry Wt) Arsenic (As)	mg/kg	0.148	0.021	7012815
Total (Dry Wt) Barium (Ba)	mg/kg	0.087	0.053	7012815
Total (Dry Wt) Beryllium (Be)	mg/kg	<0.0053	0.0053	7012815
Total (Dry Wt) Bismuth (Bi)	mg/kg	<0.0053	0.0053	7012815
Total (Dry Wt) Boron (B)	mg/kg	<1.1	1.1	7012815
Total (Dry Wt) Cadmium (Cd)	mg/kg	0.0311	0.0053	7012815
Total (Dry Wt) Cesium (Cs)	mg/kg	0.0441	0.0053	7012815
Total (Dry Wt) Chromium (Cr)	mg/kg	<0.053	0.053	7012815
Total (Dry Wt) Cobalt (Co)	mg/kg	0.148	0.0067	7012815
Total (Dry Wt) Copper (Cu)	mg/kg	5.26	0.053	7012815
Total (Dry Wt) Iron (Fe)	mg/kg	130	1.3	7012815
Total (Dry Wt) Lithium (Li)	mg/kg	<0.53	0.53	7012815
Total (Dry Wt) Manganese (Mn)	mg/kg	90.1	0.053	7012815
Total (Dry Wt) Mercury (Hg)	mg/kg	0.401	0.011	7012815
Total (Dry Wt) Molybdenum (Mo)	mg/kg	0.114	0.021	7012815
Total (Dry Wt) Nickel (Ni)	mg/kg	0.074	0.053	7012815
Total (Dry Wt) Phosphorus (P)	mg/kg	15500	11	7012815
Total (Dry Wt) Rubidium (Rb)	mg/kg	39.0	0.053	7012815
Total (Dry Wt) Selenium (Se)	mg/kg	4.59	0.053	7012815
Total (Dry Wt) Silver (Ag)	mg/kg	<0.0053	0.0053	7012815
Total (Dry Wt) Strontium (Sr)	mg/kg	0.458	0.053	7012815
Total (Dry Wt) Tellurium (Te)	mg/kg	<0.021	0.021	7012815
Total (Dry Wt) Thallium (Tl)	mg/kg	0.0233	0.0021	7012815
Total (Dry Wt) Tin (Sn)	mg/kg	<0.11	0.11	7012815
Total (Dry Wt) Titanium (Ti)	mg/kg	0.75	0.11	7012815
Total (Dry Wt) Uranium (U)	mg/kg	<0.0021	0.0021	7012815
Total (Dry Wt) Vanadium (V)	mg/kg	<0.11	0.11	7012815
Total (Dry Wt) Zinc (Zn)	mg/kg	390	0.21	7012815
Total (Dry Wt) Zirconium (Zr)	mg/kg	<0.21	0.21	7012815
Total (Dry Wt) Calcium (Ca)	mg/kg	1100	11	7012815
Total (Dry Wt) Magnesium (Mg)	mg/kg	1130	2.1	7012815

RDL = Reportable Detection Limit
QC Batch = Quality Control Batch

BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

ELEMENTS BY ATOMIC SPECTROSCOPY (TISSUE)

BV Labs ID		NPV107		
Sampling Date		2020/09/13 10:00		
COC Number		792731-09-01		
	UNITS	**NP-13 GONAD**	**RDL**	**QC Batch**
Total (Dry Wt) Potassium (K)	mg/kg	20300	11	7012815
Total (Dry Wt) Sodium (Na)	mg/kg	4150	11	7012815

RDL = Reportable Detection Limit
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GENERAL COMMENTS

Each temperature is the average of up to three cooler temperatures taken at receipt

Package 1	-1.3°C

Revised Report (2020/02/03): Report re-issued with updated Mercury results for a bunch of samples. They were originally reported off by a factor of 1000 due to a transcsiption error.

L. Tissue added to ID of first set of samples as per S. Yardley.

Results relate only to the items tested.

BV Labs Job #: C0N7925
Report Date: 2021/02/03

QUALITY ASSURANCE REPORT

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012812	Moisture-Subcontracted	2020/10/03			<0.30	%	0.49	20		
7012814	Total (Wet Wt) Aluminum (Al)	2020/10/11	114	75 - 125	<0.20	mg/kg	NC	40	92	75 - 125
7012814	Total (Wet Wt) Antimony (Sb)	2020/10/11	106	75 - 125	<0.0010	mg/kg	NC	40		
7012814	Total (Wet Wt) Arsenic (As)	2020/10/11	103	75 - 125	<0.0040	mg/kg	3.7	40	101	75 - 125
7012814	Total (Wet Wt) Barium (Ba)	2020/10/11	105	75 - 125	<0.010	mg/kg	36	40		
7012814	Total (Wet Wt) Beryllium (Be)	2020/10/11	103	75 - 125	<0.0010	mg/kg	NC	40		
7012814	Total (Wet Wt) Bismuth (Bi)	2020/10/11	98	75 - 125	<0.0010	mg/kg	0.27	40		
7012814	Total (Wet Wt) Boron (B)	2020/10/11	102	75 - 125	<0.20	mg/kg	NC	40		
7012814	Total (Wet Wt) Cadmium (Cd)	2020/10/11	103	75 - 125	<0.0010	mg/kg	NC	40	98	75 - 125
7012814	Total (Wet Wt) Calcium (Ca)	2020/10/11	100	75 - 125	<2.0	mg/kg	60	60		
7012814	Total (Wet Wt) Cesium (Cs)	2020/10/10	104	75 - 125	<0.0010	mg/kg				
7012814	Total (Wet Wt) Chromium (Cr)	2020/10/11	104	75 - 125	<0.010	mg/kg	NC	40	80	75 - 125
7012814	Total (Wet Wt) Cobalt (Co)	2020/10/11	102	75 - 125	<0.0013	mg/kg	NC	40	90	75 - 125
7012814	Total (Wet Wt) Copper (Cu)	2020/10/11	102	75 - 125	<0.010	mg/kg	3.0	40	87	75 - 125
7012814	Total (Wet Wt) Iron (Fe)	2020/10/11	110	75 - 125	<0.25	mg/kg	8.3	40	92	75 - 125
7012814	Total (Wet Wt) Lead (Pb)	2020/10/11	102	75 - 125	<0.0040 (4)	mg/kg	4.2 (4)	40	51 (1)	75 - 125
7012814	Total (Wet Wt) Lithium (Li)	2020/10/10	104	75 - 125	<0.10	mg/kg			88	75 - 125
7012814	Total (Wet Wt) Magnesium (Mg)	2020/10/11	105	75 - 125	<0.40	mg/kg	0.13	40		
7012814	Total (Wet Wt) Manganese (Mn)	2020/10/11	106	75 - 125	<0.010	mg/kg	16	40		
7012814	Total (Wet Wt) Mercury (Hg)	2020/10/11	124	75 - 125	<0.0020	mg/kg	0.81	40	95	75 - 125
7012814	Total (Wet Wt) Molybdenum (Mo)	2020/10/11	105	75 - 125	<0.0040	mg/kg	NC	40	95	75 - 125
7012814	Total (Wet Wt) Nickel (Ni)	2020/10/11	105	75 - 125	<0.010	mg/kg	NC	40	89	75 - 125
7012814	Total (Wet Wt) Phosphorus (P)	2020/10/11	107	75 - 125	<2.0	mg/kg	9.3	40	95	75 - 125
7012814	Total (Wet Wt) Potassium (K)	2020/10/11	106	75 - 125	<2.0	mg/kg	2.4	40		
7012814	Total (Wet Wt) Rubidium (Rb)	2020/10/10	117	75 - 125	<0.010	mg/kg				
7012814	Total (Wet Wt) Selenium (Se)	2020/10/11	104	75 - 125	<0.010	mg/kg	0.53	40	102	75 - 125
7012814	Total (Wet Wt) Silver (Ag)	2020/10/11	65 (3)	75 - 125	<0.0010	mg/kg	NC	40		
7012814	Total (Wet Wt) Sodium (Na)	2020/10/11	109	75 - 125	<2.0	mg/kg	0.95	40	95	75 - 125
7012814	Total (Wet Wt) Strontium (Sr)	2020/10/11	110	75 - 125	<0.010	mg/kg	66 (6)	60		
7012814	Total (Wet Wt) Tellurium (Te)	2020/10/10	98	75 - 125	<0.0040	mg/kg				
7012814	Total (Wet Wt) Thallium (Tl)	2020/10/11	92	75 - 125	<0.00040	mg/kg	0.81	40		

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012814	Total (Wet Wt) Tin (Sn)	2020/10/11	139 (3)	75 - 125	<0.020	mg/kg	NC	40	204 (2)	75 - 125
7012814	Total (Wet Wt) Titanium (Ti)	2020/10/11	102	75 - 125	<0.020	mg/kg	7.3	40		
7012814	Total (Wet Wt) Uranium (U)	2020/10/11	103	75 - 125	<0.00040	mg/kg	NC	40	93	75 - 125
7012814	Total (Wet Wt) Vanadium (V)	2020/10/11	102	75 - 125	<0.020	mg/kg	NC	40		
7012814	Total (Wet Wt) Zinc (Zn)	2020/10/11	122	75 - 125	0.042, RDL=0.040 (5)	mg/kg	3.4	40	90	75 - 125
7012814	Total (Wet Wt) Zirconium (Zr)	2020/10/10	85	75 - 125	<0.040	mg/kg				
7012817	Moisture-Subcontracted	2020/10/03			<0.30	%	2.6	20		
7012818	Total (Wet Wt) Aluminum (Al)	2020/10/10	111	75 - 125	<0.20	mg/kg	73 (6)	40	94	75 - 125
7012818	Total (Wet Wt) Antimony (Sb)	2020/10/10	106	75 - 125	<0.0010	mg/kg	NC	40		
7012818	Total (Wet Wt) Arsenic (As)	2020/10/10	104	75 - 125	<0.0040	mg/kg	1.9	40	102	75 - 125
7012818	Total (Wet Wt) Barium (Ba)	2020/10/10	104	75 - 125	<0.010	mg/kg	64 (6)	40		
7012818	Total (Wet Wt) Beryllium (Be)	2020/10/10	104	75 - 125	<0.0010	mg/kg	NC	40		
7012818	Total (Wet Wt) Bismuth (Bi)	2020/10/10	97	75 - 125	<0.0010	mg/kg	0.88	40		
7012818	Total (Wet Wt) Boron (B)	2020/10/10	102	75 - 125	<0.20	mg/kg	NC	40		
7012818	Total (Wet Wt) Cadmium (Cd)	2020/10/10	102	75 - 125	<0.0010	mg/kg	21	40	100	75 - 125
7012818	Total (Wet Wt) Calcium (Ca)	2020/10/10	104	75 - 125	<2.0	mg/kg	60	60		
7012818	Total (Wet Wt) Chromium (Cr)	2020/10/10	104	75 - 125	<0.010	mg/kg	NC	40	75	75 - 125
7012818	Total (Wet Wt) Cobalt (Co)	2020/10/10	102	75 - 125	<0.0013	mg/kg	4.1	40	91	75 - 125
7012818	Total (Wet Wt) Copper (Cu)	2020/10/10	101	75 - 125	<0.010	mg/kg	20	40	87	75 - 125
7012818	Total (Wet Wt) Iron (Fe)	2020/10/10	111	75 - 125	<0.25	mg/kg	3.8	40	92	75 - 125
7012818	Total (Wet Wt) Lead (Pb)	2020/10/10	101	75 - 125	<0.0040 (4)	mg/kg	0.20 (4)	40	54 (1)	75 - 125
7012818	Total (Wet Wt) Magnesium (Mg)	2020/10/10	105	75 - 125	<0.40	mg/kg	9.1	40		
7012818	Total (Wet Wt) Manganese (Mn)	2020/10/10	105	75 - 125	<0.010	mg/kg	68 (6)	40		
7012818	Total (Wet Wt) Mercury (Hg)	2020/10/10	107	75 - 125	<0.0020	mg/kg	0 (7)	40	92	75 - 125
7012818	Total (Wet Wt) Molybdenum (Mo)	2020/10/10	106	75 - 125	<0.0040	mg/kg	NC	40	97	75 - 125
7012818	Total (Wet Wt) Nickel (Ni)	2020/10/10	105	75 - 125	<0.010	mg/kg	NC	40	82	75 - 125
7012818	Total (Wet Wt) Phosphorus (P)	2020/10/10	105	75 - 125	<2.0	mg/kg	19	40	97	75 - 125
7012818	Total (Wet Wt) Potassium (K)	2020/10/10	105	75 - 125	<2.0	mg/kg	3.7	40		
7012818	Total (Wet Wt) Selenium (Se)	2020/10/10	104	75 - 125	<0.010	mg/kg	1.3	40	106	75 - 125
7012818	Total (Wet Wt) Silver (Ag)	2020/10/10	65 (3)	75 - 125	<0.0010	mg/kg	NC	40		

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012818	Total (Wet Wt) Sodium (Na)	2020/10/10	108	75 - 125	<2.0	mg/kg	5.1	40	97	75 - 125
7012818	Total (Wet Wt) Strontium (Sr)	2020/10/10	110	75 - 125	<0.010	mg/kg	65 (6)	60		
7012818	Total (Wet Wt) Thallium (Tl)	2020/10/10	93	75 - 125	<0.00040	mg/kg	9.5	40		
7012818	Total (Wet Wt) Tin (Sn)	2020/10/10	128 (3)	75 - 125	<0.020	mg/kg	NC	40	182 (2)	75 - 125
7012818	Total (Wet Wt) Titanium (Ti)	2020/10/10	106	75 - 125	<0.020	mg/kg	29	40		
7012818	Total (Wet Wt) Uranium (U)	2020/10/10	102	75 - 125	<0.00040	mg/kg	NC	40	96	75 - 125
7012818	Total (Wet Wt) Vanadium (V)	2020/10/10	103	75 - 125	<0.020	mg/kg	NC	40		
7012818	Total (Wet Wt) Zinc (Zn)	2020/10/10	106	75 - 125	<0.040	mg/kg	0.30	40	91	75 - 125
7012819	Moisture-Subcontracted	2020/10/03			<0.30	%	0.68	20		
7012820	Total (Wet Wt) Aluminum (Al)	2020/10/10	116	75 - 125	<0.20	mg/kg	0.97	40	99	N/A
7012820	Total (Wet Wt) Antimony (Sb)	2020/10/10	105	75 - 125	<0.0010	mg/kg	NC	40		
7012820	Total (Wet Wt) Arsenic (As)	2020/10/10	105	75 - 125	<0.0040	mg/kg	1.5	40	106	N/A
7012820	Total (Wet Wt) Barium (Ba)	2020/10/10	109	75 - 125	<0.010	mg/kg	NC	40		
7012820	Total (Wet Wt) Beryllium (Be)	2020/10/10	112	75 - 125	<0.0010	mg/kg	NC	40		
7012820	Total (Wet Wt) Bismuth (Bi)	2020/10/10	98	75 - 125	<0.0010	mg/kg	3.1	40		
7012820	Total (Wet Wt) Boron (B)	2020/10/10	109	75 - 125	<0.20	mg/kg	NC	40		
7012820	Total (Wet Wt) Cadmium (Cd)	2020/10/10	102	75 - 125	<0.0010	mg/kg	2.7	40	98	N/A
7012820	Total (Wet Wt) Calcium (Ca)	2020/10/10	103	75 - 125	<2.0	mg/kg	4.4	60		
7012820	Total (Wet Wt) Chromium (Cr)	2020/10/10	105	75 - 125	<0.010	mg/kg	NC	40	76	N/A
7012820	Total (Wet Wt) Cobalt (Co)	2020/10/10	103	75 - 125	<0.0013	mg/kg	4.8	40	86	N/A
7012820	Total (Wet Wt) Copper (Cu)	2020/10/10	101	75 - 125	<0.010	mg/kg	1.7	40	86	N/A
7012820	Total (Wet Wt) Iron (Fe)	2020/10/10	108	75 - 125	<0.25	mg/kg	9.0	40	95	N/A
7012820	Total (Wet Wt) Lead (Pb)	2020/10/10	104	75 - 125	<0.0040 (4)	mg/kg	NC (4)	40	53 (1)	N/A
7012820	Total (Wet Wt) Magnesium (Mg)	2020/10/10	110	75 - 125	<0.40	mg/kg	2.1	40		
7012820	Total (Wet Wt) Manganese (Mn)	2020/10/10	106	75 - 125	<0.010	mg/kg	4.8	40		
7012820	Total (Wet Wt) Mercury (Hg)	2020/10/10	119	75 - 125	<0.0020	mg/kg	2.5	40	94	N/A
7012820	Total (Wet Wt) Molybdenum (Mo)	2020/10/10	105	75 - 125	<0.0040	mg/kg	2.3	40	97	N/A
7012820	Total (Wet Wt) Nickel (Ni)	2020/10/10	104	75 - 125	<0.010	mg/kg	6.0	40	81	N/A
7012820	Total (Wet Wt) Phosphorus (P)	2020/10/10	108	75 - 125	<2.0	mg/kg	4.2	40	97	N/A
7012820	Total (Wet Wt) Potassium (K)	2020/10/10	107	75 - 125	<2.0	mg/kg	2.9	40		
7012820	Total (Wet Wt) Selenium (Se)	2020/10/10	106	75 - 125	<0.010	mg/kg	7.2	40	108	N/A

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012820	Total (Wet Wt) Silver (Ag)	2020/10/10	64 (3)	75 - 125	<0.0010	mg/kg	1.9	40		
7012820	Total (Wet Wt) Sodium (Na)	2020/10/10	107	75 - 125	<2.0	mg/kg	2.4	40	97	N/A
7012820	Total (Wet Wt) Strontium (Sr)	2020/10/10	110	75 - 125	<0.010	mg/kg	2.0	60		
7012820	Total (Wet Wt) Thallium (Tl)	2020/10/10	93	75 - 125	<0.00040	mg/kg	3.2	40		
7012820	Total (Wet Wt) Tin (Sn)	2020/10/10	145 (3)	75 - 125	<0.020	mg/kg	2.6	40	204	N/A
7012820	Total (Wet Wt) Titanium (Ti)	2020/10/10	102	75 - 125	<0.020	mg/kg	17	40		
7012820	Total (Wet Wt) Uranium (U)	2020/10/10	107	75 - 125	<0.00040	mg/kg	1.4	40	104	N/A
7012820	Total (Wet Wt) Vanadium (V)	2020/10/10	104	75 - 125	<0.020	mg/kg	1.1	40		
7012820	Total (Wet Wt) Zinc (Zn)	2020/10/10	124	75 - 125	0.045, RDL=0.040 (5)	mg/kg	0.75	40	88	N/A
7012821	Total (Wet Wt) Aluminum (Al)	2020/10/17	108	80 - 120	<0.50	mg/kg			96	75 - 125
7012821	Total (Wet Wt) Antimony (Sb)	2020/10/17	100	80 - 120	<0.0020	mg/kg				
7012821	Total (Wet Wt) Arsenic (As)	2020/10/17	100	80 - 120	<0.0050	mg/kg			95	75 - 125
7012821	Total (Wet Wt) Barium (Ba)	2020/10/17	102	80 - 120	<0.010	mg/kg				
7012821	Total (Wet Wt) Beryllium (Be)	2020/10/17	102	80 - 120	<0.0020	mg/kg				
7012821	Total (Wet Wt) Bismuth (Bi)	2020/10/17	101	80 - 120	<0.0013	mg/kg				
7012821	Total (Wet Wt) Boron (B)	2020/10/17	103	80 - 120	<0.20	mg/kg				
7012821	Total (Wet Wt) Cadmium (Cd)	2020/10/17	97	80 - 120	<0.0013	mg/kg			92	75 - 125
7012821	Total (Wet Wt) Calcium (Ca)	2020/10/17	101	80 - 120	<4.0	mg/kg				
7012821	Total (Wet Wt) Chromium (Cr)	2020/10/17	99	80 - 120	<0.025	mg/kg			92	75 - 125
7012821	Total (Wet Wt) Cobalt (Co)	2020/10/17	98	80 - 120	<0.0013	mg/kg			90	75 - 125
7012821	Total (Wet Wt) Copper (Cu)	2020/10/17	99	80 - 120	<0.013	mg/kg			87	75 - 125
7012821	Total (Wet Wt) Iron (Fe)	2020/10/17	105	80 - 120	<0.25	mg/kg			96	75 - 125
7012821	Total (Wet Wt) Lead (Pb)	2020/10/17	102	80 - 120	<0.015 (9)	mg/kg			67 (1)	75 - 125
7012821	Total (Wet Wt) Magnesium (Mg)	2020/10/17	106	80 - 120	<0.40	mg/kg				
7012821	Total (Wet Wt) Manganese (Mn)	2020/10/17	101	80 - 120	<0.010	mg/kg				
7012821	Total (Wet Wt) Mercury (Hg)	2020/10/17	104	80 - 120	<0.013	mg/kg			91	75 - 125
7012821	Total (Wet Wt) Molybdenum (Mo)	2020/10/17	98	80 - 120	<0.0080	mg/kg			94	75 - 125
7012821	Total (Wet Wt) Nickel (Ni)	2020/10/17	99	80 - 120	<0.010	mg/kg			87	75 - 125
7012821	Total (Wet Wt) Phosphorus (P)	2020/10/17	101	80 - 120	<2.0	mg/kg			93	75 - 125
7012821	Total (Wet Wt) Potassium (K)	2020/10/17	104	80 - 120	<2.5	mg/kg				

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012821	Total (Wet Wt) Selenium (Se)	2020/10/17	96	80 - 120	<0.010	mg/kg			96	75 - 125
7012821	Total (Wet Wt) Silver (Ag)	2020/10/17	72 (8)	80 - 120	<0.0013	mg/kg				
7012821	Total (Wet Wt) Sodium (Na)	2020/10/17	107	80 - 120	2.6, RDL=2.5 (10)	mg/kg			98	75 - 125
7012821	Total (Wet Wt) Strontium (Sr)	2020/10/17	103	80 - 120	<0.013	mg/kg				
7012821	Total (Wet Wt) Thallium (Tl)	2020/10/17	104	80 - 120	<0.00040	mg/kg				
7012821	Total (Wet Wt) Tin (Sn)	2020/10/17	101	80 - 120	<0.020	mg/kg			109	75 - 125
7012821	Total (Wet Wt) Titanium (Ti)	2020/10/17	100	80 - 120	<0.13	mg/kg				
7012821	Total (Wet Wt) Uranium (U)	2020/10/17	106	80 - 120	<0.00040	mg/kg			90	75 - 125
7012821	Total (Wet Wt) Vanadium (V)	2020/10/17	100	80 - 120	<0.020	mg/kg				
7012821	Total (Wet Wt) Zinc (Zn)	2020/10/17	104	80 - 120	<0.20	mg/kg			89	75 - 125
7012823	Moisture-Subcontracted	2020/10/03			<0.30	%	3.1	20		
7012824	Total (Wet Wt) Aluminum (Al)	2020/10/15	109	75 - 125	<0.20	mg/kg	34	40	93	N/A
7012824	Total (Wet Wt) Antimony (Sb)	2020/10/15	107	75 - 125	<0.0010	mg/kg	NC	40		
7012824	Total (Wet Wt) Arsenic (As)	2020/10/15	103	75 - 125	<0.0040	mg/kg	7.0	40	103	N/A
7012824	Total (Wet Wt) Barium (Ba)	2020/10/15	108	75 - 125	<0.010	mg/kg	3.7	40		
7012824	Total (Wet Wt) Beryllium (Be)	2020/10/15	99	75 - 125	<0.0010	mg/kg	NC	40		
7012824	Total (Wet Wt) Bismuth (Bi)	2020/10/15	96	75 - 125	<0.0010	mg/kg	3.2	40		
7012824	Total (Wet Wt) Boron (B)	2020/10/15	101	75 - 125	<0.20	mg/kg	NC	40		
7012824	Total (Wet Wt) Cadmium (Cd)	2020/10/15	103	75 - 125	<0.0010	mg/kg	1.4	40	98	N/A
7012824	Total (Wet Wt) Calcium (Ca)	2020/10/15	102	75 - 125	<2.0	mg/kg	0.63	60		
7012824	Total (Wet Wt) Chromium (Cr)	2020/10/15	103	75 - 125	<0.010	mg/kg	NC	40	79	N/A
7012824	Total (Wet Wt) Cobalt (Co)	2020/10/15	102	75 - 125	<0.0013	mg/kg	2.2	40	90	N/A
7012824	Total (Wet Wt) Copper (Cu)	2020/10/15	101	75 - 125	<0.010	mg/kg	0.75	40	88	N/A
7012824	Total (Wet Wt) Iron (Fe)	2020/10/15	109	75 - 125	<0.25	mg/kg	6.3	40	94	N/A
7012824	Total (Wet Wt) Lead (Pb)	2020/10/15	103	75 - 125	<0.0010	mg/kg	5.2	40	97	N/A
7012824	Total (Wet Wt) Magnesium (Mg)	2020/10/15	108	75 - 125	<0.40	mg/kg	1.2	40		
7012824	Total (Wet Wt) Manganese (Mn)	2020/10/15	105	75 - 125	<0.010	mg/kg	2.2	40		
7012824	Total (Wet Wt) Mercury (Hg)	2020/10/15	125	75 - 125	<0.0020	mg/kg	0.47	40	94	N/A
7012824	Total (Wet Wt) Molybdenum (Mo)	2020/10/15	105	75 - 125	<0.0040	mg/kg	5.5	40	95	N/A
7012824	Total (Wet Wt) Nickel (Ni)	2020/10/15	103	75 - 125	<0.010	mg/kg	14	40	80	N/A

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QUALITY ASSURANCE REPORT(CONT'D)

			SPIKED BLANK		Method Blank		RPD		QC Standard	
QC Batch	Parameter	Date	% Recovery	QC Limits	Value	UNITS	Value (%)	QC Limits	% Recovery	QC Limits
7012824	Total (Wet Wt) Phosphorus (P)	2020/10/15	104	75 - 125	<2.0	mg/kg	2.2	40	97	N/A
7012824	Total (Wet Wt) Potassium (K)	2020/10/15	105	75 - 125	<2.0	mg/kg	1.8	40		
7012824	Total (Wet Wt) Selenium (Se)	2020/10/15	102	75 - 125	<0.010	mg/kg	0.19	40	107	N/A
7012824	Total (Wet Wt) Silver (Ag)	2020/10/15	64 (3)	75 - 125	<0.0010	mg/kg	NC	40		
7012824	Total (Wet Wt) Sodium (Na)	2020/10/15	106	75 - 125	<2.0	mg/kg	2.3	40	100	N/A
7012824	Total (Wet Wt) Strontium (Sr)	2020/10/15	109	75 - 125	<0.010	mg/kg	0.41	60		
7012824	Total (Wet Wt) Thallium (Tl)	2020/10/15	92	75 - 125	<0.00040	mg/kg	3.6	40		
7012824	Total (Wet Wt) Tin (Sn)	2020/10/15	103	75 - 125	<0.020	mg/kg	2.6	40	199	N/A
7012824	Total (Wet Wt) Titanium (Ti)	2020/10/15	107	75 - 125	<0.020	mg/kg	12	40		
7012824	Total (Wet Wt) Uranium (U)	2020/10/15	107	75 - 125	<0.00040	mg/kg	NC	40	93	N/A
7012824	Total (Wet Wt) Vanadium (V)	2020/10/15	103	75 - 125	<0.020	mg/kg	NC	40		
7012824	Total (Wet Wt) Zinc (Zn)	2020/10/15	104	75 - 125	<0.040	mg/kg	1.1	40	89	N/A

Duplicate: Paired analysis of a separate portion of the same sample. Used to evaluate the variance in the measurement.

QC Standard: A sample of known concentration prepared by an external agency under stringent conditions. Used as an independent check of method accuracy.

Spiked Blank: A blank matrix sample to which a known amount of the analyte, usually from a second source, has been added. Used to evaluate method accuracy.

Method Blank: A blank matrix containing all reagents used in the analytical procedure. Used to identify laboratory contamination.

NC (Duplicate RPD): The duplicate RPD was not calculated. The concentration in the sample and/or duplicate was too low to permit a reliable RPD calculation (absolute difference <= 2x RDL).

(1) Reference Material for (Lead) exceeds acceptance criteria due to digestion limitation.

(2) Reference Material exceeds acceptance criteria. Re-analysis yields similar results.

(3) Blank Spike outside acceptance criteria - re-analysis yields similar results.

(4) "Lead Results reported for METWV-TI" under Job No. C067138 on batches [A048161, A048211, A048349] were method blank subtracted with client consent. Please refer to BBY PDF-00356".

(5) Method Blank exceeds acceptance limits for Zn. Sample values for Zn are >10x the concentration of the method blank and the contamination is considered irrelevant.

(6) Recovery or RPD for this parameter is outside control limits. The overall quality control for this analysis meets acceptability criteria.

(7) RDL raised due to concentration over linear range, sample dilution required.

(8) Blank Spike outside acceptance criteria - digestion limitation.

(9) Method Blank for Pb outside acceptance criteria due to sample contamination. Insufficient sample left for reanalysis, detection limit adjusted accordingly.

(10) Method Blank exceeds acceptance limits for Na. Sample values for Na are >10x the concentration of the method blank.

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BV Labs Job #: C0N7925
Report Date: 2021/02/03

EcoMetrix Incorporated
Client Project #: 20-2713
Site Location: 2020 AQUATIC STUDY
Sampler Initials: JT

VALIDATION SIGNATURE PAGE

The analytical data and all QC contained in this report were reviewed and validated by the following individual(s).

<original signed by>

David Huang, BBY Scientific Specialist

BV Labs has procedures in place to guard against improper use of the electronic signature and have the required "signatories", as per ISO/IEC 17025, signing the reports.
For Service Group specific validation please refer to the Validation Signature Page.

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CHAIN OF CUSTODY RECORD

Page of

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:	
Address:	6800 Campobello Rd	Address:		Project:	20-2713
	Mississauga ON L5N 2L8			Project Name:	2020 Aquatic study
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Site #:	
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Sampled By:	

Laboratory Use Only:

BV Labs Job #:	Bottle Order #:
	792731
COC #:	Project Manager:
C#792731-01-01	Kyle Reinhart

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011): ☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___

Other Regulations: ☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Reg 406 Table ___ ☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Field Filtered (please circle): Metals / Hg / Cr VI; Metals + moisture

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Metals + moisture	# of Bottles	Comments
1		WA-1	13SEP2020	10:00	Tissue	✓		
2		WA-2	↓	↓	↓	✓		
3		WA-3	↓	↓	↓	✓		
4		WA-4	↓	↓	↓	✓		
5		WA-5	↓	↓	↓	✓		
6		WA-6	↓	↓	↓	✓		
7		WA-7	↓	↓	↓	✓		
8		WA-8	↓	↓	↓	✓		
9		WA-9	↓	↓	↓	✓		
10		WA-10	↓	↓	↓	✓		

14-Sep-20 15:15
Kyle Reinhart
C0N7925
HGR FZ-46

Rec'd In Thunder Bay

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by>	20/09/14	14:35	<original signed by>	2020/09/14	15:15	
			<original signed by>	2020/09/15	09:39	

Laboratory Use Only — Cooling media present

Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
	-1 / -2 / -1	Present		
		Intact		N/A

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

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DU # 3774764440026 2/4/3

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Page of

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #:
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:			792731
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:	20-2713 2020 Aquatic Toxicity	COC #:	Project Manager:
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Project Name:		C#792731-02-01	Kyle Reinhart
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Reg 406 Table ___ ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Metals + moisture	# of Bottles	Comments
1		WA-11	13SEP2020	10:00	Tissue		✓		
2		WA-12					✓		
3		WA-13					✓		
4		WA-14					✓		
5		WA-15					✓		
6		NP-1					✓		
7		NP-2					✓		
8		NP-3					✓		
9		NP-4					✓		
10		NP-5					✓		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only			
<original signed by>	24/09/14	14:35	See Page 1				Time Sensitive	Temperature (°C) on Recei	Custody Seal Present / Intact	Yes / No

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

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CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #:
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:			792731
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:	20-2713 2020 Aquatic Study	COC #:	Project Manager:
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Project Name:		C#792731-03-01	Kyle Reinhart
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality	
☐ Table ___	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? ____

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified).
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ____ Time Required: ____ ☐
Rush Confirmation Number: ____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Metals + moisture	# of Bottles	Comments
1		NP-6	13SEP 2020	10:00	Tissue		✓		
2		NP-7					✓		
3		NP-8					✓		
4		NP-9					✓		
5		NP-10					✓		
6		NP-11					✓		
7		NP-12					✓		
8		NP-13					✓		
9		NP-14					✓		
10		NP-15					✓		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by>	20/09/13	14:35	<original signed by> SEE PAGE 1			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

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Page of

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #:
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:			792731
Address:	6800 Campobello Rd	Address:		Project:	20-2713	COC #:	Project Manager:
	Mississauga ON L5N 2L8			Project Name:	2020 Validation Studies	C#792731-05-01	Kyle Reinhart
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Site #:			
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine	☐ CCME ☐ Sanitary Sewer Bylaw	
☐ Table 2 ☐ Ind/Comm ☐ Coarse	☐ Reg 558 ☐ Storm Sewer Bylaw	
☐ Table 3 ☐ Agri/Other ☐ For RSC	☐ MISA Municipality	
☐ Table ___	☐ PWQO ☐ Reg 406 Table	
	☐ Other	

Include Criteria on Certificate of Analysis (Y/N)? _____

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: _____ Time Required: _____
Rush Confirmation Number: _____ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): metals + moisture	# of Bottles	Comments
1		WA-1 Liver	13SEP2020	10:00	Liver Tissue		✓		
2		WA-2 Liver	↓	↓	↓		✓		
3		WA-3 Liver					✓		
4		WA-4 Liver					✓		
5		WA-5 Liver					✓		
6		WA-6 Liver					✓		
7		WA-7 Liver					✓		
8		WA-8 - Liver					✓		
9		WA-9 Liver					✓		
10		WA-10 Liver	↓	↓	↓		✓		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by>	20/09/14	14:35	See Page 1 SEE PAGE			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

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** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

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CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #: 792731
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:			
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:	20-2713 2020 Tantalus Study	COC #: C#792731-06-01	Project Manager: Kyle Reinhart
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Project Name:			
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)	Other Regulations	Special Instructions
☐ Table 1 ☐ Res/Park ☐ Medium/Fine ☐ Table 2 ☐ Ind/Comm ☐ Coarse ☐ Table 3 ☐ Agri/Other ☐ For RSC ☐ Table ___	☐ CCME ☐ Sanitary Sewer Bylaw ☐ Reg 558 ☐ Storm Sewer Bylaw ☐ MISA Municipality ___ ☐ PWQO ☐ Reg 406 Table ___ ☐ Other ___	

Include Criteria on Certificate of Analysis (Y/N)? ___

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC): Metals + moisture	# of Bottles	Comments
1		WA-11 Liver	13 SEP 2020	10:00	Liver Tissue		✓		
2		WA-12 Liver					✓		
3		WA-13 Liver					✓		
4		WA-14 Liver					✓		
5		WA-15 Liver					✓		
6		NP-1 Liver					✓		
7		NP-2 Liver					✓		
8		NP-3 Liver					✓		
9		NP-4 Liver					✓		
10		NP-5 Liver					✓		

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT: ☒
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests..
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___ ☐
Rush Confirmation Number: ___ *(call lab for #)*

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted	Laboratory Use Only: Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
<original signed by>	20/09/14	1935	See Page 1 SEE PAGE 7						Present		
									Intact		

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CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #: 792731
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:			
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:			
				Project Name:		COC #:	Project Manager:
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Site #:		C#792731-07-01	Kyle Reinhart
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO ☐ Reg 406 Table ___
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

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Job Specific Rush TAT (if applies to entire submission) ☐
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	Metals + moisture	# of Bottles	Comments
1		NP-6 Liver	13 SEP 2020	10:00	Liver Tissue		✓		
2		NP-7 Liver	↓	↓	↓		✓		
3		NP-8 Liver					✓		
4		NP-9 Liver					✓		
5		NP-10 Liver					✓		
6		NP-11 Liver					✓		
7		NP-12 Liver					✓		
8		NP-13 Liver					✓		
9		NP-14 Liver					✓		
10		NP-15 Liver	↓	↓	↓		✓		

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by> MP	20/09/14	14:35	See Page 1 SEE PAGE 1			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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Page of

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #:
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:	20-2713		792731
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:	2020 Spatial Studies	COC #:	Project Manager:
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Project Name:		C#792731-08-01	Kyle Reinhart
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
☐ Table 1 ☐ Res/Park ☐ Medium/Fine
☐ Table 2 ☐ Ind/Comm ☐ Coarse
☐ Table 3 ☐ Agri/Other ☐ For RSC
☐ Table ___

Other Regulations
☐ CCME ☐ Sanitary Sewer Bylaw
☐ Reg 558 ☐ Storm Sewer Bylaw
☐ MISA Municipality ___
☐ PWQO ☐ Reg 406 Table ___
☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Field Filtered (please circle): Metals / Hg / Cr VI

ANALYSIS REQUESTED (PLEASE BE SPECIFIC)

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Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered	Metals + moisture									# of Bottles	Comments
1		WA-7 Gonad	13 SEP 2020	16:00	Gonad Tissue		✓										
2		WA-13 Gonad					✓										
3		WA-11 Gonad					✓										
4		WA-15 Gonad					✓										
5		WA-5 Gonad					✓										
6		WA-6 Gonad					✓										
7		WA-2 Gonad					✓										
8		WA-9 Gonad					✓										
9		WP-5 Gonad					✓										
10		WP-7 Gonad					✓										

* RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by>	20/09/14	14:30	See Page 1 SEE PAGE 1			

Laboratory Use Only				
Time Sensitive	Temperature (°C) on Recei	Custody Seal	Yes	No
		Present		
		Intact		

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SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

Bureau Veritas Laboratories
6740 Campobello Road, Mississauga, Ontario Canada L5N 2L8 Tel (905) 817-5700 Toll-free 800-563-6266 Fax (905) 817-5777 www.bvlabs.com

Page of

CHAIN OF CUSTODY RECORD

INVOICE TO:		REPORT TO:		PROJECT INFORMATION:		Laboratory Use Only:	
Company Name:	#12046 EcoMetrix Incorporated	Company Name:		Quotation #:	B60675	BV Labs Job #:	Bottle Order #:
Attention:	Joe Tetreault	Attention:	Joe Tetreault	P.O. #:	20-273		792731
Address:	6800 Campobello Rd Mississauga ON L5N 2L8	Address:		Project:	2020 Agnico Eagle	COC #:	Project Manager:
Tel:	(905) 794-2325 Ext: 215 Fax: (905) 794-2338	Tel:	(905) 794-2325 Ext: 215 Fax:	Project Name:		C#792731-09-01	Kyle Reinhart
Email:	jtetreault@ecometrix.ca	Email:	jtetreault@ecometrix.ca	Site #:			
				Sampled By:			

MOE REGULATED DRINKING WATER OR WATER INTENDED FOR HUMAN CONSUMPTION MUST BE SUBMITTED ON THE BV LABS DRINKING WATER CHAIN OF CUSTODY

Regulation 153 (2011)
- ☐ Table 1 ☐ Res/Park ☐ Medium/Fine
- ☐ Table 2 ☐ Ind/Comm ☐ Coarse
- ☐ Table 3 ☐ Agri/Other ☐ For RSC
- ☐ Table ___

Other Regulations
- ☐ CCME ☐ Sanitary Sewer Bylaw
- ☐ Reg 558 ☐ Storm Sewer Bylaw
- ☐ MISA Municipality ___
- ☐ PWQO ☐ Reg 406 Table ___
- ☐ Other ___

Special Instructions

Include Criteria on Certificate of Analysis (Y/N)? ___

Turnaround Time (TAT) Required:
Please provide advance notice for rush projects

Regular (Standard) TAT:
(will be applied if Rush TAT is not specified):
Standard TAT = 5-7 Working days for most tests.
Please note: Standard TAT for certain tests such as BOD and Dioxins/Furans are > 5 days - contact your Project Manager for details.

Job Specific Rush TAT (if applies to entire submission)
Date Required: ___ Time Required: ___
Rush Confirmation Number: ___ *(call lab for #)*

	Sample Barcode Label	Sample (Location) Identification	Date Sampled	Time Sampled	Matrix	Field Filtered (please circle): Metals / Hg / Cr VI	ANALYSIS REQUESTED (PLEASE BE SPECIFIC)	# of Bottles	Comments
1		NP-11 Gonad	13 SEP 2020	10:00	Gonad Tissue		Metals+moisture		
2		NP-9 Gonad	↓	↓	↓		✓		
3		NP-13 Gonad	↓	↓	↓		✓		
4									
5									
6									
7									
8									
9									
10									

RELINQUISHED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	RECEIVED BY: (Signature/Print)	Date: (YY/MM/DD)	Time	# jars used and not submitted
<original signed by>	20/09/14	14:35	See Page 1 SEE PAGE 1			

Laboratory Use Only			
Time Sensitive	Temperature (°C) on Recei	Custody Seal Present	Yes / No
		Intact	

* UNLESS OTHERWISE AGREED TO IN WRITING, WORK SUBMITTED ON THIS CHAIN OF CUSTODY IS SUBJECT TO BV LABS' STANDARD TERMS AND CONDITIONS. SIGNING OF THIS CHAIN OF CUSTODY DOCUMENT IS ACKNOWLEDGMENT AND ACCEPTANCE OF OUR TERMS WHICH ARE AVAILABLE FOR VIEWING AT WWW.BVLABS.COM/TERMS-AND-CONDITIONS.

* IT IS THE RESPONSIBILITY OF THE RELINQUISHER TO ENSURE THE ACCURACY OF THE CHAIN OF CUSTODY RECORD. AN INCOMPLETE CHAIN OF CUSTODY MAY RESULT IN ANALYTICAL TAT DELAYS.

** SAMPLE CONTAINER, PRESERVATION, HOLD TIME AND PACKAGE INFORMATION CAN BE VIEWED AT WWW.BVLABS.COM/RESOURCES/CHAIN-OF-CUSTODY-FORMS.

SAMPLES MUST BE KEPT COOL (< 10° C) FROM TIME OF SAMPLING UNTIL DELIVERY TO BV LABS

White: BV Labs Yellow: Client

Bureau Veritas Canada (2019) Inc.

ECOMETRIX INC
ATTN: Joe Tetreault
6800 CAMPOBELLO ROAD
MISSISSAUGA ON L5N 2L8

Date Received: 04-FEB-21
Report Date: 12-FEB-21 12:25 (MT)
Version: FINAL

Client Phone: --

Certificate of Analysis

Lab Work Order #: **L2554658**
Project P.O. #: NOT SUBMITTED
Job Reference:
C of C Numbers:
Legal Site Desc:

<original signed by>

Amanda Overholster
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2554658-1 WA-1 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.8		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	3.57		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-2 WA-2 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.9		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.63		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-3 WA-3 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.1		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.77		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-4 WA-4 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.5		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.41		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-5 WA-5 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.9		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.38		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-6 WA-6 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.1		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	8.98		0.025	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-7 WA-7 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.1		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.13		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2554658-7 WA-7 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Metals							
L2554658-8 WA-8 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.3		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	2.46		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-9 WA-9 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.4		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	2.03		0.010	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-10 WA-10 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.3		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.16		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-11 WA-11 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.3		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.72		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-12 WA-12 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.7		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	3.50		0.010	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-13 WA-13 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.1		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.06		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-14 WA-14 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2554658-14 WA-14 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.6		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.05		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-15 WA-15 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.9		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.68		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-16 NP-1 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	77.4		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	2.17		0.010	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-17 NP-2 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.0		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	2.14		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-18 NP-3 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.9		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	3.03		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-19 NP-4 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.1		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	1.44		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-20 NP-5 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	82.5		0.50	%		09-FEB-21	R5369399
Metals							
Mercury (Hg)-Total	3.22		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2554658-20 NP-5 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Metals							
L2554658-21 NP-6 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.8		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.36		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-22 NP-7 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.3		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.86		0.0050	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-23 NP-8 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	80.3		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	2.79		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-24 NP-9 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.5		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.70		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-25 NP-10 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.2		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.76		0.010	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-26 NP-11 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.6		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	3.01		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-27 NP-12 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2554658-27 NP-12 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.3		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.96		0.010	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-28 NP-13 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	78.9		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	1.79		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-29 NP-14 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.9		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	2.19		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237
L2554658-30 NP-15 Sampled By: CLIENT on 13-SEP-20 @ 10:00 Matrix: TISSUE							
Physical Tests							
% Moisture	79.8		0.50	%		09-FEB-21	R5369439
Metals							
Mercury (Hg)-Total	2.44		0.015	mg/kg	09-FEB-21	11-FEB-21	R5371237

* Refer to Referenced Information for Qualifiers (if any) and Methodology.

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
HG-DRY-CVAFS-N-VA	Tissue	Mercury in Tissue by CVAAS (DRY)	EPA 200.3, EPA 245.7

This method is conducted following British Columbia Lab Manual method "Metals in Animal Tissue and Vegetation (Biota) - Prescriptive". Tissue samples are homogenized and sub-sampled prior to hotblock digestion with nitric and hydrochloric acids, in combination with addition of hydrogen peroxide. Analysis is by atomic fluorescence spectrophotometry or atomic absorption spectrophotometry, adapted from US EPA Method 245.7.

MOISTURE-TISS-VA	Tissue	% Moisture in Tissues	Puget Sound WQ Authority, Apr 1997

This analysis is carried out gravimetrically by drying the sample at 105 C for a minimum of six hours.

** ALS test methods may incorporate modifications from specified reference methods to improve performance.

The last two letters of the above test code(s) indicate the laboratory that performed analytical analysis for that test. Refer to the list below:

Laboratory Definition Code	Laboratory Location
VA	ALS ENVIRONMENTAL - VANCOUVER, BRITISH COLUMBIA, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.
mg/kg - milligrams per kilogram based on dry weight of sample
mg/kg wwt - milligrams per kilogram based on wet weight of sample
mg/kg lwt - milligrams per kilogram based on lipid weight of sample
mg/L - unit of concentration based on volume, parts per million.
< - Less than.
D.L. - The reporting limit.
N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.
UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.
Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.

Quality Control Report

Workorder: L2554658 Report Date: 12-FEB-21

Client: ECOMETRIX INC
6800 CAMPOBELLO ROAD
MISSISSAUGA ON L5N 2L8
Contact: Joe Tetreault

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-DRY-CVAFS-N-VA	**Tissue**							
Batch R5371237								
WG3485758-3 CRM		**VA-NRC-DORM4**						
Mercury (Hg)-Total			111.6		%		70-130	11-FEB-21
WG3485882-3 CRM		**VA-NRC-DORM4**						
Mercury (Hg)-Total			108.0		%		70-130	11-FEB-21
WG3485758-2 DUP		**L2554658-1**						
Mercury (Hg)-Total		3.57	3.58		mg/kg	0.3	40	11-FEB-21
WG3485882-2 DUP		**L2554658-22**						
Mercury (Hg)-Total		1.86	1.93		mg/kg	3.4	40	11-FEB-21
WG3485758-4 LCS								
Mercury (Hg)-Total			103.3		%		80-120	11-FEB-21
WG3485882-4 LCS								
Mercury (Hg)-Total			103.8		%		80-120	11-FEB-21
WG3485758-1 MB								
Mercury (Hg)-Total			<0.0050		mg/kg		0.005	11-FEB-21
WG3485882-1 MB								
Mercury (Hg)-Total			<0.0050		mg/kg		0.005	11-FEB-21
MOISTURE-TISS-VA	**Tissue**							
Batch R5369399								
WG3485754-3 DUP		**L2554658-17**						
% Moisture		80.0	79.7		%	0.3	20	09-FEB-21
WG3485754-2 LCS								
% Moisture			100.3		%		90-110	09-FEB-21
WG3485754-1 MB								
% Moisture			<0.50		%		0.5	09-FEB-21
Batch R5369439								
WG3485880-3 DUP		**L2554658-28**						
% Moisture		78.9	78.9		%	0.1	20	09-FEB-21
WG3485880-2 LCS								
% Moisture			100.4		%		90-110	09-FEB-21
WG3485880-1 MB								
% Moisture			<0.50		%		0.5	09-FEB-21

Quality Control Report

Workorder: L2554658 Report Date: 12-FEB-21

Client: ECOMETRIX INC
6800 CAMPOBELLO ROAD
MISSISSAUGA ON L5N 2L8
Contact: Joe Tetreault

Legend:

Limit	ALS Control Limit (Data Quality Objectives)
DUP	Duplicate
RPD	Relative Percent Difference
N/A	Not Available
LCS	Laboratory Control Sample
SRM	Standard Reference Material
MS	Matrix Spike
MSD	Matrix Spike Duplicate
ADE	Average Desorption Efficiency
MB	Method Blank
IRM	Internal Reference Material
CRM	Certified Reference Material
CCV	Continuing Calibration Verification
CVS	Calibration Verification Standard
LCSD	Laboratory Control Sample Duplicate

Hold Time Exceedances:

All test results reported with this submission were conducted within ALS recommended hold times.

ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where available). For more information, please contact ALS.

The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide confidence in the accuracy of associated test results.

Please note that this report may contain QC results from anonymous Sample Duplicates and Matrix Spikes that do not originate from this Work Order.

Chain of Custody (COC) / Analytical Request Form

ALS Environmental

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

L2554658-COFC

COC Number: 15 -

Report To	Contact and company name below will appear on the final report
Company:	Ecometrix
Contact:	Joseph Tetreault / Caroline Farkas
Phone:	905-452-4676
	Company address below will appear on the final report
Street:	6800 Campobello Rd
City/Province:	Mississauga, Ontario
Postal Code:	L5N 2L8
Invoice To	Same as Report To ☐ YES ☑ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	Ecometrix
Contact:	Barb Sproule

Project Information

ALS Account # / Quote #:	Q84009
Job #:	
PO / AFE:	
LSD:	
ALS Lab Work Order # (lab use only)	L2554658

Report Format

Select Report Format: ☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)

Quality Control (QC) Report with Report ☑ YES ☐ NO

☑ Compare Results to Criteria on Report - provide details below if box checked

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: jtetreault@ecometrix.ca

Email 2: cfarkas@ecometrix.ca

Email 3:

Invoice Distribution

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: jtetreault@ecometrix.ca

Email 2: bsproule@ecometrix.ca

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact:	Sampler:

Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply

Regular [R] ☐ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
	4 day [P4] ☐		1 Business day [E1] ☑
	3 day [P3] ☐		Same Day, Weekend or Statutory holiday [E0] ☐
	2 day [P2] ☐		

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	HG-DRY-CVAFS-N-VA	MOISTURE-TISS-VA	PREP-TISS-DIGEST-VA	Number of Containers
	WA-1 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-2 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-3 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-4 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-5 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-6 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-7 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-8 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-9 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-10 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-11 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-12 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐ YES ☑ NO

Are samples for human drinking water use? ☐ YES ☑ NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☒ Ice Cubes ☐ Custody seal intact Yes ☒ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
-6.8			-6.6		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
<original signed by>	04 FEB 2021	0900	Karan	2/4/2021	9:04		2021	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

Failure to complete all portions of the form may delay analysis. Please fill in this form LEGIBLY. By the use of this form the user acknowledges and agrees with the Terms and Conditions as specified on this form.

1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an ALS Canada DW COC form.

Chain of Custody (COC) / Analytical Request Form

L2554658-COFC

COC Number: 15 -

ALS Environmental

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Ecometrix
Contact:	Joseph Tetreault / Caroline Farkas
Phone:	905-452-4676
	Company address below will appear on the final report
Street:	6800 Campobello Rd
City/Province:	Mississauga, Ontario
Postal Code:	L5N 2L8
Invoice To	Same as Report To ☑YES ☐NO
	Copy of Invoice with Report ☑YES ☐NO
Company:	Ecometrix
Contact:	Barb Sproule

Report Format / Distribution	
Select Report Format:	☑PDF ☑EXCEL ☐EDD (DIGITAL)
Quality Control (QC) Report with Report	☑YES ☐NO
☑Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑EMAIL ☐MAIL ☐FAX
Email 1 or Fax	jtetreault@ecometrix.ca
Email 2	cfarkas@ecometrix.ca
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑EMAIL ☐MAIL ☐FAX
Email 1 or Fax	jtetreault@ecometrix.ca
Email 2	bsproule@ecometrix.ca

Project Information	
ALS Account # / Quote #:	Q84009
Job #:	
PO / AFE:	
LSD:	

Oil and Gas Required Fields (client use)	
AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	

ALS Lab Work Order # (lab use only): L2554658 **ALS Contact:** **Sampler:**

Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply

Regular [R] ☐ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
4 day [P4]	☐	1 Business day [E1]	☑
3 day [P3]	☐	Same Day, Weekend or Statutory holiday [E0]	☐
2 day [P2]	☐		

Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	HG-DRY-CVAFS-N-VA	MOISTURE-TISS-VA	PREP-TISS-DIGEST-VA	Number of Containers
	WA-13	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-14	13-Sep-20	10:00	Tissue	E1	E1	E1	
	WA-15	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-1	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-2	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-3	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-4	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-5	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-6	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-7	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-8	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-9	13-Sep-20	10:00	Tissue	E1	E1	E1	

Drinking Water (DW) Samples[1] (client use)

Are samples taken from a Regulated DW System? ☐YES ☑NO

Are samples for human drinking water use? ☐YES ☑NO

Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☒ Ice Cubes ☐ Custody seal intact Yes ☒ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C	
-6.8		-6.6	

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: Caroline Farkas	Date: 04 Feb 2021	Time: 900	Received by: <original signed by>	Date: 2/4/2021	Time: 9:04	Received by: <original signed by>	Date: 2/4/21	Time: 1130

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Chain of Custody (COC) / Analytical Request Form

L2554658-COFC

OC Number: 15 -

ALS Environmental

Canada Toll Free: 1 800 668 9878

Report To	Contact and company name below will appear on the final report
Company:	Ecometrix
Contact:	Joseph Tetreault / Caroline Farkas
Phone:	905-452-4676
	Company address below will appear on the final report
Street:	6800 Campobello Rd
City/Province:	Mississauga, Ontario
Postal Code:	L5N 2L8
Invoice To	Same as Report To ☐ YES ☐ NO
	Copy of Invoice with Report ☑ YES ☐ NO
Company:	Ecometrix
Contact:	Barb Sproule

Report Format / Distribution	
Select Report Format:	☑ PDF ☑ EXCEL ☐ EDD (DIGITAL)
Quality Control (QC) Report with Report	☑ YES ☐ NO
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jtetreault@ecometrix.ca
Email 2	cfarkas@ecometrix.ca
Email 3	

Invoice Distribution	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	jtetreault@ecometrix.ca
Email 2	bsproule@ecometrix.ca

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:	Q84009	AFE/Cost Center:	PO#:
Job #:		Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (lab use only)	L2554658	ALS Contact:	Sampler:

Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply

Regular [R] ☐ Standard TAT if received by 3 pm - business days - no surcharges apply

PRIORITY (Business Days)		EMERGENCY	
4 day [P4]	☐	1 Business day [E1]	☑
3 day [P3]	☐	Same Day, Weekend or Statutory holiday [E0]	☐
2 day [P2]	☐		

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the service level selected, you will be contacted.

Analysis Request

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	HG-DRY-CVAFS-N-VA	MOISTURE-TISS-VA	PREP-TISS-DIGEST-VA	Number of Containers
	NP-10 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-11 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-12 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-13 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-14 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	
	NP-15 ✓	13-Sep-20	10:00	Tissue	E1	E1	E1	

Drinking Water (DW) Samples[1] (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	
Are samples for human drinking water use? ☐ YES ☑ NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen ☐ SIF Observations Yes ☐ No ☐

Ice Packs ☒ Ice Cubes ☐ Custody seal intact Yes ☒ No ☐

Cooling Initiated ☐

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C		
-6.8			-6.0		

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)		
Released by: <original signed by>	Date: FEB 4 2021	Time: 0900	Received by: Karan	Date: 2/4/2021	Time: 9:04	Received by: <original signed by>	Date: 2/4/21	Time: 1130

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

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1. If any water samples are taken from a **Regulated Drinking Water (DW) System**, please submit using an **Authorized DW COC form**.

Appendix C Field Survey Information

Ontario

Fort Frances District Office
922 Scott Street
Fort Frances, Ontario
P9A 1J4

Ministry of Natural Resources and Forestry

Ministère des Richesses naturelles et des Forêts

Tel: (807)274-5337
Fax: (807)274-4438

File: FF2020-3767

September 1, 2020

Nichole Wiemann
Ecometrix
6800 Campobello Rd
Mississauga, ON L5N 2L8

SUBJECT: Licence to Collect Fish for Scientific Purposes

Dear Ms. Wiemann:

Your application for a Licence to Collect Fish for Scientific Purposes has been approved. This authorizes you and those named on the licence to conduct a survey to support reference site identification for upcoming monitoring projects at the locations described in the licence and on the attached map (Figure 2.1), from the date of issue until October 31, 2020. Attached to the licence is a Schedule of Conditions which must be followed at all times. Please sign the licence and Schedule A and return a copy to this office for the licence to take effect.

As a condition of the licence, you are required to submit a mandatory report on your activities. The digital Mandatory Report form documenting the sampling conducted under this licence must be submitted to this office within 30 days of the termination date. The Mandatory Report form (Part 1) must be completed for each project and the digital Site Collection Reports (Part 2) must be completed for each collection/release site. A separate map clearly indicating the location of each collection site and release site must be attached to the Site Collection Reports. The submission of a satisfactory report is a prerequisite to any subsequent renewals.

If you have any questions please contact Andy Chepil, A/Fish and Wildlife Technical Specialist at 807-274-8618 or by email at andy.chepil@ontario.ca

Sincerely,

<original signed by>

Christine Kent
A/Resource Operations Supervisor
Fort Frances District

Encl. Licence to Collect Fish for Scientific Purposes, Schedule A
Best Practices, Animal Care Protocol
Blank Mandatory Report

Ontario

Ministry of Natural Resources

Ministère des Richesses naturelles

Licence to Collect Fish for Scientific Purposes

Permis pour faire la collecte de poissons à des fins scientifiques

Licence No. / Nº de permis	Local Reference No. / Nº de référence local	Issuer Account No. / Nº de compte du delivreur de permis.
1096566	FF2020-3767	10003073

This licence is issued under Part I of the Fish Licensing Regulation made under the Fish and Wildlife Conservation Act, 1997 to:

Ce permis est délivré en vertu de la Partie I du règlement sur la délivrance de permis de pêche formulé conformément à la Loi sur la protection du poisson et de la faune de 1997 à:

	Last Name / Nom de famille	First Name / Prénom	Middle Name / Second Prénom
Name of Licencee / Nom du titulaire du permis	Ms. Wiemann	Nichole	

Name of Business/Organization/Affiliation (if applicable) / Nom de l'entreprise/de l'organisme/de l'affiliation (le cas échéant)

Ecometrix

	Street Name & No./PO Box/RR#/Gen. Del./ Nº rue/C.P./R.R./poste restante		
Mailing address of Licencee / ***Adresse postale du titulaire du permis***	6800 Campobello Road		
	City/Town/Municipality / Ville/village/municipalité	Province/State / Province/État	Postal Code/Zip Code / Code Postal/Zip
	Mississauga	ON	L5N 2L8

to collect the species, size and quantites of fish from the waters as set out below.
Pour faire la collecte des espèces suivantes (stade et nombre indiqués ci-dessous):

Species / Espèces	Eggs / Oeuf	Juvenile / Fretin	Adults / Adulte	Numbers / Nombre	Name of Waterbody / Nom de l'étendue d'eau
	X	X	X		
Northern Pike			X	15	Pinewood River
Walleye			X	15	Pinewood River

Yes/Oui ☐ Additional species/Waterbody list attached / Liste d'espèces/d'étendue d'eau additionnelles ci-jointe

Purpose of collection / ***But de la collecte***: to collect tissue samples for analysis

Licence Dates / ***Dates du permis***	Effective Date / Date d'entrée en vigueur (YYYY-MM-DD)	Expiry Date / Date d'expiration (YYYY-MM-DD)
	2020-09-01	2020-10-31

Licence conditions / ***Conditions du permis***: This licence is subject to the conditions contained in Schedule A if included. / Ce permis doit respecter les conditions de l'annexe A si celle-ci est jointe.

Yes/Oui ☒ No/Non ☐ Schedule A included. / Annexe A ci-jointe

Issued by (please print) / Délivré par (veuillez écrire en caractères d'imprimerie)	Signature of issuer / Signature du délivreur	Date of Issue/Date de délivrance (YYYY-MM-DD)
Christine Kent	<original signed by>	2020-08-31

Signature of Licencee / Signature du titulaire du permis	Date (YYYY-MM-DD)
<original signed by>	2020-08-31

Personal information contained on this form is collected under the authority of the Fish and Wildlife Conservation Act, 1997 and will be used for the purpose of licencing, identification, enforcement, resource management and customer service surveys. Please direct further inquiries to the District Manager of the MNR issuing district.

Les renseignements personnels dans ce formulaire sont recueillis conformément à la Loi sur la protection du poisson de la faune, 1997 , et ils seront utilisés aux fins de délivrance de permis, d'identification, d'application des règlements, de gestion des ressources et de sondage sur les services a la clientèle. Veuillez communiquer avec le chef du district du MRN qui délivré le permis si vous avez des questions.

FW0032 (04/00)

Ontario

Licence to Collect Fish for Scientific Purposes
Schedule A – Licence Conditions

Licence No. 1096566
Local Reference No. 2020-3767
Issuer Account No. 10003073

This licence is subject to the conditions listed below.

1. Mandatory report forms documenting the sampling conducted under this licence must be submitted to the licence issuer within 30 days of the termination date, but in no case later than January 31 next following the year of issue. The digital Mandatory Report form (Part 1) must be completed for each Sampling Program and the digital Site Collection Reports (Part 2) must be completed for each collection site. A separate map clearly indicating the location of each collection site must be attached to the Site Collection Reports. Submit Mandatory Report forms to the Fort Frances District MNRF office. The submission of a satisfactory report is a prerequisite to any subsequent renewals.

2. Sampling locations must be reported using GPS location data using: Projection: Universal Transverse Mercator (UTM); Datum: North American 1983 (NAD83), Canadian Transformation (CNT); Zone: 15 N; Units: metres.

3. Before carrying out any operation under this licence, any person authorized under this licence is required to consult with the Fort Frances Ministry of Natural Resources District Manager at least one week prior to anticipated start of sampling and obtain approval from the respective Manager for the proposed sampling activity. Also, any person authorized under this licence must advise the respective Manager of the date, time and location of all sampling.

4. A copy of the signed original licence must be carried by the licenced person when working at the designated sites. An assistant of the licenced person who is carrying out activities under this licence during the absence of the licenced person shall carry the licence on his or her person.

5. All collection gear shall be clearly marked with the licenced person's and the organization's name.

6. This licence is not valid in Provincial Parks, park reserves, Conservation Authority property or National Parks without written permission from the authorized person in charge of the area concerned. http://www.ontarioparks.com/email/research

7. Capture gear shall be inspected regularly and live holding traps must be inspected at least once daily.

8. This licence does not allow access to any property without permission of the landowner.

9. This licence ONLY allows for the following capture gear to be used:

    a. *Gillnets, hoop nets, trap nets and boat electrofisher*

10. Persons authorized under this licence include the following:

    a. *Joe Tetreault, Sean Yardley, Jason Dietrich, Robert Eakins, Michael White, Caroline Farkas, Nicholas Edmunds, Jofina Victor*

11. Any fish released, must be released to the waters where originally captured.

12. The licensee shall follow the best management practices for the collection, handling, transportation and holding of fish identified in FPS Technical Bulletin (Dec. 15, 2011) included with the licence in order to minimize the risk of spreading aquatic invasive species and diseases.

13. All field equipment must be de-contaminated prior to use on each water body in order to prevent the spread of exotic species and disease.

14. Unless specifically authorized by a separate Endangered Species Act (ESA) authorization (i.e. Registry or permit) and/or Federal Species at Risk Act (SARA) permit, no person shall attempt to catch a Species at Risk.

15. Unless specifically authorized by a separate Endangered Species Act (ESA) authorization (i.e. Registry or permit) and/or Federal Species at Risk Act (SARA) permit, any Species at Risk that are incidentally captured must be photographed and immediately released alive at the point of capture (including, but not limited to: lake sturgeon, redside dace, black redhorse, river redhorse and eastern sand darter). The photographs, including capture coordinates and date caught, must be forwarded to SAROntario@ontario.ca

16. Unless specifically authorized by a separate Endangered Species Act (ESA) authorization (i.e. Registry or permit) and/or Federal Species at Risk Act (SARA) permit, sampling must cease immediately in an area when a Species at Risk is caught

17. All aquatic SAR must also be reported to the Ministry of Natural Resources and Forestry Natural Heritage Information Centre on the appropriate form at: https://www.ontario.ca/environment-and-energy/natural-heritage-information-centre

18. This licence does not authorize the possession of specially protected fish under the *Ontario Fishery Regulations*.

19. The following MNRF Class Animal Care Protocols will be adhered to as appropriate for the project activity:
    - Capture Methods - Impounding Gear
    - Capture Methods – Lethal Gillnetting
    - Capture Methods – Non-Lethal Gillnetting
    - Capture Methods - Electrofishing
    - Containment – Short Term Containment
    - Handling and Marking – Biological Sampling
    - Euthanasia – By Blow to the Head
    - Euthanasia – By Anaesthesia

Signature of Licensee

<original signed by>

Date

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]	
PineR-GN1	Pine River			20-2713	
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr) / (cover)
GN	3"	ON GPS			4 / 2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)			
—	100 ft	silty sand, tanic/brown water			

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders
MA = macrophytes
LT = log/tree
OT = other
NC = no cover

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY Ryan Tom	09/09/20	6:20		1m	45°	0.3	1.0	2.0

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY Clement Gustafson	10/09/20	9:40	1	10C		1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots / km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0	00	SW	16	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		9				
Walleye		3				

Species	Fish #	Fork Length	Total Length	Weight (g / kg)	Aging Struct.	Comments

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

WATER QUALITY READING

Date: 9 SEP 2020 Time: 16:30

Temperature: (°C)	14.38	DO: (%)	101.3
Cond.: (µS/cm) or (mS/cm)	0.237	DO: (mg/L)	10.21
Turbidity: (NTU)	mS/cm 0.191	pH:	6.23
TDS: (g / L)	0.153	ORP:	331.2
Salinity: (ppm)	—	Depth: (m)	0.5

Comments: Sauger ->
b. bullhead ->
longnose sucker ->

See Bio Sheet Data (Y / N)

QA/QC By:

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers In.	Page: _____ of _____ see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
N. Pike	NP4		431	461	0.53	34,680	24.781	3.515	7.671	M	M	SC.CL			Slight black spot
N. Pike	NP5		534	566	0.88	47,747	37,864	7.078	12,350	F	M	SC.CL			
N. Pike	NP6		429	460	0.58	26.616	26.520	4,210	13.349	M	M	SC.CL			
N. Pike	NP7		455	486	0.69	34,410	43,820	4,815	19,398	M	M	SC.CL			
N. Pike	NP8		465	491	0.65	35.677	34,159	4,590	9,485	M	M	SC.CL			Slight black spot
N. Pike	NP-9		470	502	0.71	38.791	38.170	7,252	8.899	F	M	SC.CL			
N. Pike	NP.10		449	478	0.58	28,408	30.442	2.236	9,980	M	M	SC.CL			Slight black spot
N. Pike	NP.11		562	598	1.00	33.271	98.283	9,181	13.464	F	M	SC.CL			
N. Pike	N.12		459	496	0.61	29.673	28.656	4.657	2.226	M	M	SC.CL			
Walleye	WA8		354	378	0.49	28,660	20.381	6.575	5.050	M	M	SC.Dr.oto			
Walleye	WA9		372	397	0.58	40.038	24.639	6.558	3.410	M	M	SC.Dr.oto			Dormant female?
Walleye	W10		393	422	0.65	40.425	33.291	10.096	9.448	M	M	SC.Dr.oto			

Species Box Tally Area / Site Comments:

Species	Catch	Species	Catch
		Total #	

QA/QC By:

Date:

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otoliths
Ds - Dorsal Spine
YOY - Young Of the Year

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]	
Pine R - GN 2	Pine River			20-2713	
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr)	(cover)
GN	3" - 5"	on GPS	—	—	4	2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)				
—	150 ft (ran 2 in)	silty sand, overhanging veg				

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders OT = other
MA = macrophytes NC = no cover
LT = log/tree

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0^o - 90^o)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY								
RT								
	09/09/20	16:40	—	1.0	90	0.3	1.0	1.5

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (^oC)	Water Temp. [SITEM1] (^oC)	Wave Height [XWAVEHT] (codes 1 - 5)
SY						
CG						
	10/09/20	10:03	1	1°C	—	1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots : km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0	00	SW	16	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
Walleye		2				2 Kept
N. Pike		1				1 Kept
W. Sucker		6				Released alive
Sauger		1				Mort

Species	Fish #	Fork Length	Total Length	Weight (g / kg)	Aging Struct.	Comments

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

WATER QUALITY READING

Date: _____ Time: _____

Temperature: (^oC)		**DO:** (%)	
Cond.: (µS/cm) or (Ms/cm)		**DO:** (mg/L)	
Turbidity: (NTU)		**pH:**	
TDS: (g / L)		**ORP:**	
Salinity: (ppm)		**Depth:** (m)	

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers In.	Page: ______ of ______ see Net Form ☐

Species	Fish #	Species Code	Length (mm) Fork	Length (mm) Total	Round Weight Body (g /kg)	Round Weight L. Tissue (g)	Round Weight R. Tissue (g)	Round Weight Liver (g)	Round Weight Gonad (g)	Sex (M/F)	Maturity (M/ IM / 9)	Aging Structures (Sc, Pr, Dr, Oto)	Retained for Analysis (Y/N)	Age Class (YOY / 1+)	Comments (Hg / Condition / etc.)
Walleye	WA6		655	684	3.13		1~~0~~357	54.860	87.~~36~~	F	M	SC.Dr.Oto			57.550+
Walleye	WA7		327	350	0.37	21.944	21.793	3.271	0.~~84~~2	F	IM	✓			
N. Pike	NP1		509	544	0.84	39.890	42.199	7.372	10.144	M	M	SC.CL			

Species Box Tally Area / Site Comments:

+57,550 Left tissue (WA-6) [illegible]
59.001 =

QA/QC By:
Date:

Species	Catch	Species	Catch
		Total #	

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otoliths
Ds - Dorsal Spine
YOY - Young Of the Year

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]	
PINKR-GN3	Pine River			20-273	
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr)	(cover)
GN	3"-5"	ON GPS			4	2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)				
—	150ft (confirm)	silty sand				

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders
MA = macrophytes
LT = log/tree
OT = other
NC = no cover

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY								
RT								
	09/09/20	1700	—	0.2m	45°	0.5	1.0	2.0

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY						
C.G						
	10/09/20	10:25	1	5°C		1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots ; km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0	00	SW	12	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		2				
Walleye		1				
Brown Bullhead		1				released alive
W. Sucker		5				released alive

Species	Fish #	Fork Length	Total Length	Weight (g / kg)	Aging Struct.	Comments

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

WATER QUALITY READING

Date: _____ Time: _____

Temperature: (°C)		**DO:** (%)	
Cond.: (µS/cm) or (Ms/cm)		**DO:** (mg/L)	
Turbidity: (NTU)		**pH:**	
TDS: (g / L)		**ORP:**	
Salinity: (ppm)		**Depth:** (m)	

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers in.	Page: _____ of _____ see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
Walleye	WAE		425	451	0.79	50.480	45.530	10.215	12.606	F	M	SC Dr Oto			

Species Box Tally Area / Site Comments:

Species	Catch	Species	Catch
		Total #	

QA/QC By:

Date:

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otoliths
Ds - Dorsal Spine
YOY - Young Of the Year

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]		
PineR-GN4	Pine River			20-2713		
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr)	(cover)
GN	3"-5"	ON GB	—	—	4	2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)				
—	180 ft	silty clay				

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders OT = other
MA = macrophytes NC = no cover
LT = log/tree

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY								
LG								
	10/09/20	12:33		1.0	45	1.0	1.5	2.0

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY						
LG						
	11/Sept/2020	11:45	1	15°C	15°	1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots : km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0%	00	W	3-5	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		4			3 released	1 dead
Walleye		1				Kept
N. Bass		1				released
Sauger		1				mort

Species	~~Fish #~~	~~Fork Length~~	~~Total Length~~	~~Weight (g / kg)~~	~~Aging Struct.~~	~~Comments~~
N. Bass (confirm)						

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

WATER QUALITY READING

Date: _____ Time: _____

Temperature: (°C)		**DO:** (%)	
Cond.: (µS/cm) or (Ms/cm)		**DO:** (mg/L)	
Turbidity: (NTU)		**pH:**	
TDS: (g / L)		**ORP:**	
Salinity: (ppm)		**Depth:** (m)	

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers in.	Page: _____ of _____ see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
Walleye	WAa		363	389	0.48	28.01	27.647	9.591	0.692	F	IM	SC.Dr.Oto	Y		1 CYST (liver)

Species Box Tally Area / Site Comments:

QA/QC By:

Date:

Species	Catch	Species	Catch
		Total #	

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otoliths
Ds - Dorsal Spine
YOY - Young Of the Year

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]	
Pine R-GN5	Pine River			20-213	
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr) / (cover)
GN	3"	0 N 0 W	—	—	4 / 2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)			
—	—	silty clay			

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders OT = other
MA = macrophytes NC = no cover
LT = log/tree

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY								
LG								
	10/09/20	12:45	100 ft	—	45	0.5	1.0	2.0

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY						
CC						
	10/09/20	16:	1	15°C		1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots : km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0	00	SW	12	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		3			1 Kept	2 released
W. Sucker		1				released

Species	Fish #	Fork Length	Total Length	Weight (g / kg)	Aging Struct.	Comments

WATER QUALITY READING

Date: _____ Time: _____

Temperature: (°C)		**DO:** (%)	
Cond.: (µS/cm) or (Ms/cm)		**DO:** (mg/L)	
Turbidity: (NTU)		**pH:**	
TDS: (g / L)		**ORP:**	
Salinity: (ppm)		**Depth:** (m)	

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

Page: _____ **of** _____

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]	
PineR-GN1	Pinewood River			20-2713	
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr)	(cover)
GN	3"	8N CBS	—	—	4	2
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)				

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders
MA = macrophytes
LT = log/tree
OT = other
NC = no cover

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY								
LG								
	10/09/20	15:40	150 ft	1.0	45	1	1.5	2.0

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY						
LG						
	11SEP2020	11:10	1	15°C	15.54	1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots : km/hr)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0	00	—	None	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		11			3 mort	3 released 3 Kept
Walleye		4				Kept
W. Sucker		3				1 mort 2 released
Sauger		1				Mort
Brown Bullhead		7				released
Species	**~~Fish #~~**	**~~Fork Length~~**	**~~Total Length~~**	**~~Weight (g / kg)~~**	**~~Aging Struct.~~**	**~~Comments~~**
Shorthead Redhorse		1				released

WATER QUALITY READING

Date: 11SEP2020 Time: 11:04

Temperature: (°C)	15.54	**DO:** (%)	83.7
Cond.: ~~(µS/cm)~~ or (Ms/cm)	0.243	**DO:** (mg/L)	8.36
Turbidity: (NTU)		**pH:**	5.73
TDS: (g / L)	0.155	**ORP:**	307.1
Salinity: (ppm)	—	**Depth:** (m)	0.5

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers In.	Page: _____ of _____ see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
Walleye	WH1		379	406	0.65	36.246	28.436	8.359	1.360	F	IM	Sc.Dr.Oto			
Walleye	WA12		374	401	0.57	34.146	29.963	5.368	13.885	M	M	Sc.Dr.oto			
Walleye	WA13		305	325	0.32	24.056	20.628	3.364	0.708	F	IM	Sc.Dr.Oto			
Walleye	WA14		293	318	0.32	24.255	17.058	3.743	0.100	M	IM	Sc.Dr.Oto			
N. Pike	N:13		589	622	1.33	68.216	43.737	24.479	9.474	F	M	Sc. CL			Slight Black Spot
N. Pike	N.14		477	500	0.76	45.037	31.880	8.721	21.853	M	M	Sc, CL			
N. Pike	N.15		510	542	0.75	33.259	23.256	5.036	7.260	M	M	Sc, CL			

Species Box Tally Area / Site Comments:

QA/QC By:

Date:

Species	Catch	Species	Catch
		Total #	

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otoliths
Ds - Dorsal Spine
YOY - Young Of the Year

FISHERIES NET CATCH / EFFORT FORM

EcoMetrix INCORPORATED

SITE DESCRIPTION

Sample ID [SAMID]	Waterbody Name [WBY_NM]			Project Code [PROJCD]		
Pine R - GN 7	Pinewood River			20-7713		
Gear Type (Gillnet, Trapnet, Fyke Trap, Seine net, Fish Fence)	**Mesh Size(s)** (mm)	**Coordinates (UTM NAD 83)** [UTM Zone]	[LAT] [Easting, 6 No.]	[LONG] [Northing, 7 No.]	**Site Type** [SITP] (substr)	(cover)
GN	3" - 5"	on GPS	—	—		
Trap/Hoop Size (m)	**Net/Leader length** (m)	**Substrate Composition and Cover Types** [BOTTOM] (list all substrate types in area of net)				
—	100 ft					

Site Type - Substrate Codes:
1 = gravel/pebble/sand mix (GP + SA > 75%)
2 = boulder/rubble/cobble mix (BO + RC > 75%)
3 = sand (SA > 75%)
4 = soft mix (SI + MU + DE + soft CL > 75%)
5 = bedrock (BR > 75%)
6 = other (any other combination)

Substrate Acronyms:
BR = bedrock
BO = boulder
RC = rubble/cobble
GP = gravel/pebble
SA = sand SI = silt
CL = clay MU = muck
DE = detritus
MA = marl

Site Type - Cover Codes:
1 = no cover
2 = low (1 - 25%)
3 = moderate (25 - 75%)
4 = high (> 75%)

Cover Acronyms:
BO = boulders
MA = macrophytes
LT = log/tree
OT = other
NC = no cover

SET DESCRIPTION (recorded at time of set to ensure compliance with NSCIN standards)

Field Crew	Set Date [EFFDTO] (dd/mm/yy)	Set Time [EFFTMO] (24hh:mm)	Net Length [XLEADUSE] (1 - 60 m)	Dist. Off Shore [XDISTOFF] (0 - 40 m)	Angle to Shore [XANGLE] (0° - 90°)	Min Depth [GRDEPMIN]	Mid Depth [XGRDEPMID]	Max Depth [GRDEPMAX]
SY CB	10/09/20	16:30	100 ft	2m	~~40~~ 90	1.5	2.0	2.5

LIFT DATA (recorded at time of lift)

Note: a knot equals one "nautical mile" per hour or 1.9 km/hr (1.2 mph)

Field Crew	Lift Date [EFFDT1] (dd/mm/yy)	Lift Time [EFFTM1] (24hh:mm)	Effort Status [EFFST] (codes 1 - 3)	Air Temp. [AIRTEM1] (°C)	Water Temp. [SITEM1] (°C)	Wave Height [XWAVEHT] (codes 1 - 5)
SY CB	11SEP20	17:15	1	15°C	15°C	1

Cloud Cover [CLOUD] (%)	Precipitation [PRECIP] (codes 00 - 95)	Direction & Speed of Wind [WIND] (N,S,E,W)	(knots : ~~km/hr~~)	General Weather for Set Duration [XWEATHER] (duration precip)	(duration wave)	Duration [EFFDUR] (fishing hours)
0%	00	W	15	1	1	

Effort Status Codes:
1 = no problem
2 = minor problem, likely OK
3 = major problem, affected catch

Wave Height Codes:
1 = < 0.3 m (< 1 ft.)
2 = 0.3 - 0.6 m (1 - 2 ft.)
3 = 0.6 - 0.9 m (2 - 3 ft.)
4 = 0.9 - 1.2 m (3 - 4 ft.)
5 = > 1.2 m (> 4 ft.)

Precipitation Codes (at lift):
00 = no precipitation at lift time
10 = mist
40 = fog
51 = light drizzle
55 = heavy drizzle
61 = light rain
65 = heavy rain
71 = light snow
75 = heavy snow
80 = light rain shower
85 = heavy rain shower
95 = thunder storm

Duration Precipitation Codes:
1 = no precipitation during set
2 = < 4 hours of precipitation
3 = > 4 hours of precipitation
4 = constant precipitation

Duration Wave Codes (calm <0.3m):
1 = calm for entire set duration
2 = mostly calm & some rough
3 = mostly rough & some calm
4 = rough for entire set duration

FISH CATCH SUMMARY

Species	Species Code	Total Catch [CATCNT]	Length-tallied [SUBCNT]	Bio-sampled [BIOCNT]	Struct. Taken [STRUCT]	Comments
N. Pike		2				2 mort
Sucker		2				2 mort
W. Sucker		3				3 released
Walleye		3				3 mort

Species	Fish #	Fork Length	Total Length	Weight (g / kg)	Aging Struct.	Comments

Age Structures Legend:
Sc - Scales
Pr - Pectoral Ray
Oto - Otoliths
Dr - Dorsal Ray
YOY - Young Of the Year

WATER QUALITY READING

Date: _____ Time: _____

Temperature: (°C)		**DO:** (%)	
Cond.: (µS/cm) or (Ms/cm)		**DO:** (mg/L)	
Turbidity: (NTU)		**pH:**	
TDS: (g / L)		**ORP:**	
Salinity: (ppm)		**Depth:** (m)	

Comments:

See Bio Sheet Data (Y / N)

QA/QC By:

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine)

EcoMetrix INCORPORATED

Waterbody Name:

Start Date (DD MMM YYYY) / Time (24HR):

End Date (DD MMM YYYY) / Time (24HR):

Area Description (Habitat Type):

Sample ID:

Method #: (Traps/ Rods/ Dips)

Project Number:

UTM Coordinates (mN, mE, Zone, Aux.):

Samplers in.

Page: ____ of ____

see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
Walleye	WA3		454	484	1.22	75.216	55.440	14.091	8.200	M	M	SC, DR, PR			
Walleye	WA4		325	346	0.38	26.106	26.761	4.684	2.122	M	IM	↓			1C454 (liver)
Walleye	WA5		299	322	0.31	19.398	20.852	4.541	0.783	F	IM	↓			

Species Box Tally Area / Site Comments:

QA/QC By.

Date:

Species	Catch	Species	Catch
		Total #	

Aging Structures Legend:
Sc - Scales
Cl - Cleithrum
Pr - Pectoral Ray
Oto - Otolith
Do - Dorsal Spine
YOY - Young Of the Year

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine) Angling

EcoMetrix Incorporated

Waterbody Name: Pine River	Start Date (DD MMM YYYY) / Time (24HR): 10SEP2020 / 13:00	End Date (DD MMM YYYY) / Time (24HR): 10SEP2020 / 15:15	Area Description (Habitat Type): See photos

Sample ID: Piner-AN1	Method #: (Traps/ Rods/ Dips) Rods x 2	Project Number: 20-2713	UTM Coordinates (mN, mE, Zone, Acc.): on GPS	Samplers In. SY, CG	Page: 1 of ___ see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
N. Pike	NP-2		537	566	1.33	35.049	46.693	19.400	11.561	F	M	SC, CL			Slight Black Spot
N. Pike	NP-3		511	546	0.83	39.850	37.805	4.239	34.024	M	M	SC, CL			" "

Species Box Tally Area / Site Comments: N. Pike → ••

Species	Catch	Species	Catch
		Total #	

QA/QC By:

Date:

Aging Structures Legend:
- Sc - Scales
- Cl - Cleithrum
- Pr - Pectoral Ray
- Oto - Otoliths
- Ds - Dorsal Spine
- YOY - Young Of the Year

DETAILED BIOSAMPLING FORM

Method Used: (Minnow Trap / Angling / Dip Net / Gillnet / Seine) — Angling

EcoMetrix INCORPORATED

Waterbody Name:	Start Date (DD MMM YYYY) / Time (24HR):	End Date (DD MMM YYYY) / Time (24HR):	Area Description (Habitat Type):
Pinewood River	11SEP2020 / 9:10	11SEP2020 / 10:13	under bridge

Sample ID:	Method #: (Traps/ Rods/ Dips)	Project Number:	UTM Coordinates (mN, mE, Zone, Acc.):	Samplers In.	Page: 1 of 1
PineR-AN2	Rods x 2	20-2713	on GPS	SY	see Net Form ☐

Species	Fish #	Species Code	Length (mm)		Round Weight					Sex	Maturity	Aging Structures	Retained for Analysis	Age Class	Comments
			Fork	Total	Body (g /kg)	L. Tissue (g)	R. Tissue (g)	Liver (g)	Gonad (g)	(M/F)	(M/ IM / 9)	(Sc, Pr, Dr, Oto)	(Y/N)	(YOY / 1+)	(Hg / Condition / etc.)
Walleye	WAI	—	430	463	0.84	58.052	42.140	9.922	15.20	M	M	Sc, Dr, oto	Y	—	

Species Box Tally Area / Site Comments: Walleye →

Speci…

…re Legend:
…um
…al Ray
…ns
…l Spine
…ng Of the Year

QA/QC By:

Date: