CanNorth
Canada North Environmental Services
Limited Partnership

EASTERN ATHABASCA REGIONAL MONITORING PROGRAM 2011 ANNUAL REPORT

Final Report

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EXECUTIVE SUMMARY

The Eastern Athabasca Regional Monitoring Program (EARMP) was established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative. One of the primary goals of the Boreal Watershed Initiative is to assess the ecological integrity of Saskatchewan's northern watersheds in order to address potential environmental concerns and to identify sustainable management practices in the region. The EARMP was designed to address a foreseen gap in available long-range environment information and potential cumulative impacts downstream of uranium mining and milling operations in northern Saskatchewan.

The EARMP study framework includes two sub-programs: a community program and a technical program. The objective of the community program is to monitor the safety of traditionally harvested country foods by collecting and testing water, fish, berry, and mammal chemistry from seven communities in northern Saskatchewan. The objective of the technical program is to determine whether cumulative effects are occurring in aquatic environments in northern Saskatchewan by analyzing both the physical and biological components of waterbodies located downstream of converging watersheds that are exposed to mining and milling operations in the Athabasca Region. In addition to the above objective, a fundamental objective of this program is to provide public access to all information collected. To that end, all raw data are provided herein in appendices and the data are available electronically for download at: www.earmp.ca.

The community program included the collection of foods identified by community members as being important traditionally harvested food. This included water, blueberry (Vaccinium myrtiloides) or bog cranberry (Vaccinium vitis-idaea), lake trout (Salvelinus namaycush), lake whitefish (Coregonus clupeaformis), and moose (Alces alces) or barren-ground caribou (Rangifer tarandus groenlandicus). Communities assessed included: Black Lake, Uranium City, Camsell Portage, Fond du Lac, Stony Rapids, and Wollaston Lake/Hatchet Lake. Based on the assessment completed on the 2011 data, the community program established that parameters of potential concern in country foods were generally low, within available regional reference values, and/or comparable to supermarket foods. The only difference of note were selenium and uranium concentrations in lake whitefish samples from Uranium City (Crackingstone Inlet of Lake Athabasca), which contained slightly higher concentrations as compared to supermarket fish and maximum regional reference data.

The technical sampling program included the collection of benthic invertebrate community data along with water, sediment, lake trout, northern pike (Esox lucius), lake whitefish, white sucker (Catostomus commersoni), and longnose sucker (Catostomus catostomus) chemistry data. Sampling locations included four exposure (Cochrane River outlet from Wollaston Lake, Fond du Lac River outlet from Wollaston Lake, the Crackingstone Inlet of Lake Athabasca, and Waterbury Lake) and three reference (Cree Lake, Ellis Bay of Lake Athabasca, and Pasfield Lake) areas. Similar to the community program, the technical sampling program established that most parameters of potential concern within the water, sediment, and fish tissue assessed were low, comparable to reference, and/or below available guidelines for the protection of freshwater aquatic life. Molybdenum concentrations were higher in the water, sediment, and sucker bone chemistry from the Fond du Lac River as compared to pooled reference data. The benthic invertebrate community data was collected to provide some context on how the chemical environment may be influencing the biological environment. In the case of the Fond du Lac River, which showed higher molybdenum concentrations across all media assessed, the benthic invertebrate community was the most distinct from the other sampling areas. Additional sampling during future monitoring years will allow for the verification of this pattern, and will allow comparisons to the 2011 data to assess whether cumulative effects occur in the study areas.

One important consideration with respect to observed chemical and benthic invertebrate community differences relates to particle size. The Cree Lake reference area contained relatively high sand content as compared to the other sampling locations, which may have influenced the results. Relocating the Cree Lake sampling area to a less sandy area in the lake would likely to produce more representative results for reference sediment chemistry concentrations as well as provide more similar habitat comparisons for the benthic invertebrate community comparisons.

One other improvement to the monitoring program that should be considered for future monitoring years relates to laboratory method detection limits. If method detection limits could be improved for cadmium in water and parameters such as selenium and uranium in berry samples, and molybdenum and uranium in fish samples, confirmation of the actual concentrations in these media can be assessed near each community and an appropriate comparison can be made to available guidelines and/or supermarket data.

1.0 INTRODUCTION

1.1 Background

The Eastern Athabasca Regional Monitoring Program (EARMP) was established in 2011 under the Province of Saskatchewan's Boreal Watershed Initiative in partnership with Cameco Corporation (Cameco) and AREVA Resources Canada Inc. (AREVA). One of the primary goals of the Boreal Watershed Initiative is to assess the ecological integrity of Saskatchewan's northern watersheds in order to address potential environmental concerns and to identify sustainable management practices in the region. The EARMP was designed to address a foreseen gap in available long-range environment information and potential cumulative impacts downstream of uranium mining and milling operations in Eastern Athabasca region of northern Saskatchewan.

Cumulative effects are defined as impacts on the environment that result from the incremental impact of an action when added to other past, present, and foreseeable future actions (Joint Panel 1992). Cumulative effects might occur when similar projects overlap spatially, such as when two watersheds exposed to uranium mining activities converge. Cumulative effects may also occur temporally due to the long-range transport of contaminants over extended periods of time. By conducting long-term monitoring of sensitive biological indicators, such as benthic invertebrate communities and fish, one can get a better understanding of the overall condition and health of the aquatic environment and mitigate potential effects over time. The EARMP will help address community concerns in the north and will improve the capacity to determine whether waterbodies downstream of watersheds separately exposed to uranium mining activities experience cumulative mining effects.

Numerous environmental monitoring programs are currently conducted at mining and milling operations that are regulated by Environment Canada (Metal Mining Effluent Regulations (MMER)), the Saskatchewan Ministry of Environment (SMOE), and/or the Canadian Nuclear Safety Commission. In addition, regional sampling occurs through the Athabasca Working Group (AWG) Environmental Monitoring Program (EMP). The 2011 EARMP complements, rather than overlap with, similar information gathered by other monitoring programs and thus allow a more spatially exhaustive evaluation of potential cumulative effects from industry in northern Saskatchewan.

1.2 Study Scope and Framework

The study framework includes two sub-programs: a community program and a technical program. The objective of the community program is to monitor the safety of traditionally harvested country foods by collecting and testing (chemistry) water, fish, berry, and mammals from nearby seven communities in northern Saskatchewan. The community monitoring program relies on the participation of community members for the selection of sampling locations and will continue to be monitored long-term.

The objective of the technical program is to assess whether cumulative environmental effects are occurring in aquatic environments in northern Saskatchewan by analyzing both the physical and biological components of waterbodies located downstream of converging watersheds that are exposed to mining and milling operations in the Eastern Athabasca Region. The technical program focuses on gathering water chemistry, sediment chemistry, fish chemistry, and benthic invertebrate community data from four specific exposure locations to compare to reference areas.

In addition to the above objective, a fundamental objective of this program is to provide public access to all information collected. To that end, all raw data are provided herein in appendices and the data are available electronically for download at: www.earmp.ca.

1.3 Report Structure

This report is subdivided into four major sections including:

1. Introduction
2. Community Program
3. Technical Program
4. Conclusions and Recommendations

Section 2.0 details the results of the 2011 community sampling program while Section 3.0 details the results of the technical program. The final major section provides an overall conclusion for the 2011 monitoring year and recommendations for future monitoring.

2.0 COMMUNITY PROGRAM

2.1 Introduction

2.1.1 Background

A number of communities in northern Saskatchewan are located downstream of uranium mining operations, and thus, are potentially subject to effects. The EARMP community program was developed to address potential community concerns through the assessment of "country food" sources. Country foods can be defined as "traditional native foods that are obtained from the land, such as wild game, birds, fish, and berries by local residents during subsistence hunting and gathering" (Peace-Athabasca Delta Group Project 1972). Since country foods such as fish, berries, and game are especially important food sources in northern communities, there is potential concern for human health risks associated to the potential long-range transport of contaminants from uranium mine operations.

2.1.2 Study Area

Black Lake, Fond du Lac, Stony Rapids, Wollaston Lake/Hatchet Lake (assessed as one area), Camsell Portage, and Uranium City were assessed as part of the community program totalling six sampling areas. The locations of these communities in relation to the upstream uranium mining operations are provided in Figure 2.1-1. The sampling locations for the community program were dependent on where the community member(s) obtain the wildlife or vegetation from, and consist of broad regional sampling areas.

2.1.3 Study Design and Objectives

The primary objective of the EARMP community program is to ensure the safety of traditionally harvested foods by monitoring and testing foods gathered from areas selected by each community. To meet this objective, the following information was collected independently by community members or in conjunction with CanNorth staff in 2011:

- Water chemistry samples from each community sampling area;
- Large-body fish chemistry (lake trout (*Salvelinus namaycush*) and lake whitefish (*Coregonus clupeaformis*)) from each community sampling area;

- Berry (bog cranberry (*Vaccinium vitis-idaea*) or blueberry (*Vaccinium myrtiloides*)) chemistry from each community sampling area;
- Soil chemistry and characterization from each berry sampling location; and,
- Moose (*Alces alces*) and/or barren-ground caribou (*Rangifer tarandus groenlandicus*) chemistry from each community sampling area.

Soil profile and chemistry data was collected to characterize the soil at the berry sampling locations for year 1 of the community program only. Detailed information relating to the soils portion of the community program is provided in Appendix A.

Country foods were selected based on foods known to be locally important for the area (CanNorth 1999, 2004, 2011a). Although a full suite of parameters was assessed for each media type, data analysis focused on the following parameters which have historically been identified in the uranium mining and milling environmental assessment process as parameters of concern:

Parameters of Potential Concern	
Aluminum	Organic Carbon*
Ammonia*	pH*
Arsenic	Polonim-210
Cadmium	Radium-226
Cobalt	Selenium
Copper	Specific Conductivity*
Iron	Total Hardness*
Lead	Thorium-230
Lead-210	Uranium
Mercury	Vanadium
Molybdenum	Zinc
Nickel	

*For water only

While mercury is included in the above list of parameters, it is not associated with uranium mining and milling operations. However, since mercury has been identified as a human health concern to community members in the Eastern Athabasca Region, it has been included in the assessment. A summary of all samples collected and submitted for chemical analysis for the community sampling program are presented in Table 2.1-3.

The community monitoring program relies on the participation of community members for the selection of sampling locations and the sample collection. Prior to beginning the fieldwork in the summer of 2011, notices describing a new environmental monitoring program were distributed to the band chief/mayor and council, for distribution and discussion within each community. The purpose of the notices was to invite community members to select people from each community to carry out the country foods sampling for the EARMP. Once community members were selected from each community, one CanNorth employee traveled to each community for a training session to explain how to collect and ship the samples required for the EARMP community sampling program.

A training session was completed in each community, and all of the community environmental samples were either carried out independently by local residents and/or in conjunction with CanNorth employees. The sampling locations within each community were established during the field training session when physical variables such as water depth, fishing locations, and berry patches could be determined.

Community involvement was essential to the success of the project. Traditional Ecological Knowledge (TEK) aided in the identification and assessment of many potential sites for each species collected prior to sampling. All samples were either collected or submitted directly by, or with the assistance of community residents during their traditional hunting and gathering activities with the exception of the soil chemistry component of the community sampling program (see Appendix A).

2.2 Methods

2.2.1 Water Chemistry

Surface water samples were collected by hand at one waterbody of interest at each community by community members in cooperation with CanNorth field staff. Waterbodies assessed included: Black Lake (Figure 2.2-1), Ellis Bay of Lake Athabasca (Figure 2.2-2), the Fond du Lac River near Fond du Lac (Figure 2.2-3), the Fond du Lac River near Stony Rapids (Figure 2.2-4), the Fredette River (Figures 2.2-5a), and Welcome Bay of Wollaston Lake (Figure 2.2-6). All samples were preserved as required and kept refrigerated until chemical analysis. All water samples were submitted to the Saskatchewan Research Council (SRC) analytical laboratory for chemical analysis.

To provide context to the results, parameter concentrations were compared to available provincial (Saskatchewan Surface Water Quality Objectives (SSWQO; SE 2006) and federal (Canadian Water Quality Guidelines (CWQG; CCME 2012) guidelines for the protection of freshwater aquatic life.

2.2.2 Fish Chemistry

Fish chemistry samples were collected by community members using gill nets set overnight at waterbodies near their communities. (Figures 2.2-1 to 2.2-6).

The fish species chosen by the community for the community program were lake trout and lake whitefish, although five northern pike (*Esox lucius*) were also collected in Crackingstone Inlet. The objective for fish chemistry was to collect five samples of each target species from each of the six study areas. The number of fish collected in each waterbody is provided in Table 2.1-3.

All fish collected for chemistry near the communities under study were frozen and shipped to CanNorth offices in Saskatoon where they were identified to species, measured (fork length) to the nearest 1 mm, weighed to the nearest 20 g, sexed, and their spawning condition was recorded. In addition, a visual external health assessment was completed for each fish, and the stomach contents were described. Fish measurements and spawning condition are presented in Appendix C, Tables 2 and 3.

The fish were then submitted to SRC for chemical analysis of the flesh only[1]. In addition, otoliths (lake trout and lake whitefish) or cleithra (northern pike) were removed and submitted to a Northshore Environmental for ageing analysis.

To provide context to the community fish chemistry data, parameter concentrations were compared to:

- available guidelines (mercury consumption guideline (SE 2011));
- regional reference values (2005 to 2012) from similar reference sampling areas in northern Saskatchewan, north of Points North; and,

[1] Except for Crackingstone Inlet and Ellis Bay where bone chemistry was also analyzed, as part of the technical program.

- average supermarket freshwater fish data from the 2005 to 2007 Total Dietary Study (TDS) (Health Canada 2011) for those parameters where data were available.

2.2.3 Berry Chemistry

Near each community under study, berry samples were hand collected by local community members and/or CanNorth personnel at five replicate sampling locations typically used for berry collection by community members (Figures 2.2-1 to 2.2-6). Depending on accessibility and on current local abundance, berry species selected for collection were either blueberries or bog cranberries. All samples were double-bagged and frozen until submission to SRC for chemical analysis. Although a full suite of parameters was assessed, the data analysis focuses on those parameters presented in Section 2.1.3.

To provide context to the community berry chemistry data, parameter concentrations were compared to:

- regional reference values (2008 to 2012) from similar reference areas in northern Saskatchewan, north of Points North; and,
- average supermarket berry data (blueberries, raspberries, and strawberries) from the 2005 to 2007 Total Dietary Study (TDS) (Health Canada 2011) for those parameters where data were available.

2.2.4 Mammal Chemistry

Near each community, animal samples were collected by local community members during their routine hunting activities. Two main species are hunted and consumed in northern Saskatchewan, barren-ground caribou and moose. Although both species would have ideally been investigated in the vicinity of each community part of the program, neither species consistently occur at appropriate densities across all communities; therefore, it was not possible to get samples from one or both species consistently across all communities. The species sampled near each community, therefore, depended on local abundance. No samples were submitted from the community of Stony Rapids. Five barren-ground caribou samples from each of Black Lake, Fond du Lac, and Wollaston Lake were submitted in the winter of 2011/2012. In Camsell Portage and Uranium City, four moose samples were submitted from each community.

To provide some context to the meat chemistry data, parameter concentrations were compared to average concentrations in supermarket meat (steak, roast beef, ground beef, fresh pork, cured pork, veal, and/or lamb) consumed by a typical Canadian (Health Canada 2011).

2.2.5 Data and Data Analysis

Chemical analyses were performed by SRC analytical laboratories in Saskatoon. SRC is certified and accredited by the Canadian Association for Environmental Analytical Laboratories (CAEAL) and the Standards Council of Canada (SCC). All chemical analyses are completed using state-of-the-art technology that yields high-resolution analytical results. Concentrations of several parameters were extremely low and therefore cannot be measured with certainty because they are virtually undetectable. Such values are reported as being below the method detection limits (<MDL). For values below the MDL, it is not possible to determine the actual concentration with certainty, therefore, all values lower than the MDL were set at equal to the MDL for computing averages and standard deviations. However, it should be noted that such averages should be interpreted with caution because the actual concentrations cannot be measured.

2.3 Results

The SRC chemistry results along with SRC QA/QC reports are presented in Appendix B. Detailed chemistry results for each parameter assessed in all media are available in Appendix C along with descriptive statistics. The following sections summarize the results of the selected parameters (see Section 2.1.3) in each media assessed as part of the community program.

2.3.1 Water Chemistry

A summary of the community water chemistry is presented in Table 2.3-1 with available provincial and federal guidelines, while the detailed water chemistry results are presented in Appendix C, Table 1. Concentrations of parameters were generally very low, with the majority of parameters at or below the MDL. Of the 14 parameters with available water quality guidelines for the protection of freshwater aquatic life, only cadmium at Black Lake, Fond du Lac, Stony Rapids, and Wollaston Lake was measured above the available guidelines. However, cadmium concentrations were at or very close to the MDL

(0.00001 mg/L). When values are near the MDL, the uncertainty in comparing the measured concentration to the guideline is very high and thus the comparison is not very reliable (Environment Canada 2012). Apart from cadmium, the water quality data suggest that the parameter concentrations pose no threat to the protection of freshwater aquatic life or drinking water quality.

2.3.2 Fish Chemistry

A summary of the community fish chemistry data is presented in Table 2.3-2 and detailed fish chemistry results are provided in Appendix C, Tables 4 to 10. To provide some additional context to concentrations of other parameters in fish flesh in terms of human health, concentrations of parameters in supermarket fish (Health Canada 2011) are also included in Table 2.3-2. Of the 18 parameters assessed in fish flesh, Saskatchewan provincial guidelines exist only for mercury (Table 2.3-3). To provide further ecological context to the data, comparisons with regional references were performed using data gathered as part of other studies in northern Saskatchewan and are presented in Figures 2.3-1 to 2.3-3. The number of fish exceeding the reference range for each species and parameter are presented in Table 2.3-4. It should be noted that in the case of radionuclides, laboratory MDL often vary based on sample weight. This means there can be variation in the data, however, all values could be below MDLs.

Average mercury concentrations for all communities were below the 0.5 µg/g guideline, suggesting no restrictions apply. Additional inspection of individual sample mercury concentrations revealed that for all but one sample (LT03 from Stony Rapids; Appendix C, Table 8), mercury concentrations were below the 0.5 µg/g guideline.

Nearly all fish captured as part of the community program had cadmium, lead, molybdenum, thorium-230, and vanadium concentrations below the MDL (Appendix C, Tables 4 to 9). In addition, the majority of the uranium values (with the exception of the Uranium City lake whitefish) and lead-210 values (with the exception of two Black Lake samples) measured below or equal to the MDLs. In general, the mean concentrations in the community fish data are quite comparable to those in the supermarket fish.

In Black Lake, two lake whitefish parameter concentrations were above the regional reference values (Table 2.3-4). Arsenic concentrations were higher than the maximum regional reference value in two of the five lake whitefish samples assessed and one

mercury value was higher (Appendix C, Table 4). In the lake trout samples, copper (1 of 5 samples) and mercury (all samples) were greater than the maximum recorded regional reference value. It is important to point out that mean concentrations of arsenic and copper were similar or lower to those observed in supermarket fish, and in the case of mercury, below available fish consumption guidelines (Figures 2.3-1 and 2.3-2).
In the lake whitefish samples assessed for Uranium City (Crackingstone Inlet of Lake Athabasca), five parameters (cadmium, nickel, selenium, thorium-230, and uranium) were higher than the maximum concentrations observed in the regional reference data in at least one sample (Table 2.3-4). However, for those with supermarket values for comparison, only uranium concentrations were elevated above supermarket concentrations. In the lake trout samples, two parameters (mercury (3 of 5 samples) and arsenic (4 of 5 samples)) were higher than maximum regional reference values. All values however, remained below the supermarket concentrations and available fish consumption guidelines, respectively (Figures 2.3-1 and 2.3-2). All Uranium City northern pike values measured below the maximum regional reference values.

In the Camsell Portage lake trout, four parameters were measured at concentrations above the maximum regional reference area concentrations in at least one sample. This included mercury, zinc, and uranium in one lake trout sample, and arsenic in three lake trout samples (Table 2.3-4). Mean mercury concentrations remained below available fish consumption guidelines and mean arsenic and zinc concentrations were below those observed in supermarket fish (Figure 2.3-1). In lake whitefish, three arsenic concentrations were greater than the regional reference maximum but all remained below the supermarket average. Additionally, one of the five thorium-230 concentrations was slightly higher than the regional maximum, but was below the MDL and regional mean value for thorium-230 (Appendix C, Table 6; Figure 3.2-2).

In Fond du Lac, arsenic concentrations exceeded maximum regional reference area concentrations in some of the lake whitefish and lake trout samples (Table 2.3-4). However, similar to the other communities, the mean concentrations were below those observed in supermarket freshwater fish (Table 2.3-2). In addition, four mercury concentrations were above the regional maximum but all remained below available fish consumption guidelines (Figure 2.3-1). Finally, one lake whitefish cadmium concentration was above the maximum regional reference values for which there are currently no available supermarket values (Appendix C, Table 7; Figure 2.3-2).

Mercury concentrations in two lake whitefish and all five lake trout collected near Stony Rapids from the Fond du Lac River were higher than the maximum regional reference concentration (Figures 2.3-1 and 2.3-2), however, only one fish (LT03; Appendix C, Table 8) contained concentrations slightly higher than the 0.5 µg/g fish consumption guideline (Table 2.3-3). The average mercury concentrations for both species remained below available fish consumption guidelines (Table 2.3-2).

In the Wollaston Lake/Hatchet Lake community fish samples, all parameters with exception to mercury concentrations in LT04 were within the range of regional reference data (Table 2.3-4; Figures 2.3-1 and 2.3-2). Although the mercury concentration in LT04 exceeded the regional reference range, both the mean and individual mercury concentrations for lake trout in Wollaston Lake/Hatchet Lake remained well below available fish consumption guidelines (Appendix C, Table 9).

2.3.3 Berry Chemistry

A summary of the blueberry and bog cranberry parameter concentrations is presented in Tables 2.3-5 and 2.3-6, respectively. Detailed berry chemistry is provided in Appendix C, Tables 11 to 13.

There currently are no guidelines regarding parameter concentrations in berries, however, average concentrations in supermarket berries (strawberry, blueberry, raspberry) from the Health Canada Total Dietary Study (Health Canada 2011) are presented in the tables to provide context for select parameter concentrations. To provide further ecological context to the data, comparisons with regional references were performed using data gathered as part of other studies. Details on the regional reference data are presented in Table 2.3-7.

2.3.3.1 Blueberries

Five blueberry samples were collected near each of the communities of Black Lake, Fond du Lac, Stony Rapids, and Wollaston Lake/Hatchet Lake at local berry picking areas. Figure 2.3-4 summarizes the mean, maximum, and minimum concentration of POPCs measured in blueberries at the four communities and at regional reference areas, along with mean supermarket berry concentrations. It is important to note that in some cases

(e.g., selenium and uranium), the MDL is higher than the mean supermarket berry concentration, and therefore these results must be interpreted with caution.

In general, average parameter concentrations did not differ across the four communities (Figure 2.3-4; Table 2.3-5). It is important to point out that cadmium, selenium, thorium-230, arsenic, and vanadium were below MDLs in the majority (three to five) of the five samples collected at each of the four study locations (Table 2.3-8). Furthermore, molybdenum, uranium, cobalt, and to some extent, lead were also below MDLs in several of the samples at each of the study locations (Table 2.3-8).

For the most part, community blueberry parameter concentrations from 2011 were lower than the maximum regional reference values (Figure 2.3-4). This was shown in concentrations of aluminum, cadmium, copper, iron, molybdenum, nickel, zinc, lead-210, polonium-210, radium-226, thorium-230, arsenic, and vanadium. However, a few exceptions occurred and are noted below. The parameters greater than regional reference values for each community are listed in Table 2.3-9.

In the Black Lake blueberries, the concentrations of three parameters appeared to exceed the regional range or the supermarket values. However, the concentrations of these three parameters were uncertain and likely overestimated because several samples had concentrations that were lower than the MDL. In four of the blueberry samples from Black Lake, lead concentrations ranged between 0.02 µg/g and 0.07 µg/g, and the fifth sample had a lead value less than the MDL (0.01 µg/g; Appendix C, Table 11). The calculated average concentration was 0.04 µg/g (Figure 2.3-4), which was influenced by the presence of one value less than the MDL. This average was similar to the regional reference maximum (Figure 2.3-4) but may be higher than supermarket berry data (Table 2.3-5). Three of the cobalt concentrations ranged between 0.01 µg/g and 0.05 µg/g, and two values were less than the MDL (0.01 µg/g; Appendix C, Table 11). Although the calculated average of 0.02 µg/g was higher than the regional reference maximum (Figure 2.3-4; Table 2.3-5), this average contained two values less than the MDL. The maximum and mean cobalt concentrations were both below average supermarket berry levels. Two of the selenium concentrations in blueberries from Black Lake ranged between 0.06 µg/g and 0.08 µg/g, however, the three remaining concentrations were less than the MDL (0.05 µg/g). It is important to note that since the MDL of 0.05 µg/g is greater than the supermarket berry concentration of 0.03 µg/g, it is not possible to objectively compare

these results, however, because selenium values tended to be below the MDL, the concentration of selenium in blueberries can be considered as very low.

In the blueberry samples from Fond du Lac, the concentrations of two parameters appeared higher than the regional reference maximum values, but this was again due to an overestimate of the averages because several samples had concentrations lower than the MDL. Two of the five selenium concentrations were 0.07 µg/g and 0.08 µg/g, while the three remaining values were less than the MDL (0.05 µg/g). The maximum selenium value appeared greater than the regional reference value (Figure 2.3-4), but because this value was close to the MDL, the associated uncertainty is very high and thus this comparison must be made with caution (Environment Canada 2012). Again, it is important to note that since the MDL of 0.05 µg/g is greater than the supermarket berry value of 0.03 µg/g, it is not possible to objectively compare these results. Nonetheless, because selenium values tended to be below the MDL, concentrations can be considered very low**.** Two of the five uranium concentrations were 0.01 µg/g and 0.02 µg/g, respectively, and three values were less than the MDL (0.01 µg/g). Although the average of these values seemed higher than the regional reference maximum and the average supermarket berry levels, this average cannot be accurately compared to the reference and the supermarket values because the uranium levels were below the MDLs in the majority of the samples (Table 2.3-8).

In Stony Rapids, cobalt concentrations ranged from 0.01 µg/g to 0.07 µg/g (Appendix C, Table 11). With the exception of the 0.07 µg/g value, all cobalt concentrations, including the average of the five samples, were within the regional reference values as well as below the supermarket values (Figure 2.3-4). Three of the five uranium concentrations ranged between 0.01 µg/g and 0.02 µg/g, and two values were less than the MDL (<0.01 µg/g; Appendix C, Table 11). Values near or below the MDL have a very high associated uncertainty (Environment Canada 2012), and thus, the average uranium concentration for these samples must be interpreted with caution. As with selenium, the MDL for uranium is higher than the supermarket value for berries, therefore these results cannot be objectively compared. Nonetheless, because all values were near or below the MDL, concentrations of uranium in blueberries can be considered very low. Aluminum, copper, and nickel were within the regional reference values but were marginally above the supermarket berry average.

In Wollaston Lake/Hatchet Lake, none of the 17 parameters assessed in the blueberry samples exceeded the maximum regional reference values (Figure 2.3-4, Table 2.3-9). Uranium concentrations in all five samples were below the MDL (Appendix C, Table 11). Selenium concentrations were less than the MDL in four samples, and equal to the MDL (0.05 µg/g) in one sample. As mentioned previously, since the MDLs for selenium and uranium are higher than the supermarket values for berries, it is not possible to objectively compare these results, however, the concentrations of these two parameters can be considered very low.

2.3.3.2 Bog Cranberries

In the Uranium City and Camsell Portage areas, bog cranberries rather than blueberries were analyzed as they were more readily available near the communities and also consumed by community members. Data are summarized in Table 2.3-6. Cadmium, lead, molybdenum, selenium, thorium-230, arsenic, and vanadium concentrations were generally at or below method detection limits in the majority of samples assessed (Table 2.3-10).

For the most part, community bog cranberry parameter concentrations were lower than the regional references maximum value (Figure 2.3-5) (Table 2.3-9). Two parameters (lead-210, and cobalt) both from Uranium City were higher than the regional reference maximum (Figure 2.3-5). However, in the case of lead-210 and cobalt, average concentrations were similar to or lower than those observed in supermarket berries (Figure 2.3-5) (Table 2.3-6). In Camsell Portage, only lead-210 exceeded the regional reference, although average concentrations were very comparable to those observed in supermarket berries (Table 2.3-6). Average values for communities that were greater than the supermarket berries included aluminum, copper, and uranium yet all were comparable to the average regional reference values and remained below the maximum regional values (Figure 2.3-5).

2.3.4 Mammal Chemistry

In each of the Black Lake, Fond du Lac, and Wollaston Lake/Hatchet Lake communities, barren-ground caribou meat samples were collected, while in Camsell Portage and Uranium City, moose meat samples were collected. A summary of the results is presented in Tables 2.3-11 and 2.3-12. Since no regional reference values or guideline

values are currently available for comparison, the Health Canada Total Dietary Survey average supermarket meat (steak, roast beef, ground beef, fresh pork, cured pork, veal, and/or lamb) concentrations are provided in the tables for context (Health Canada 2011).

2.3.4.1 Barren-ground Caribou Meat

Average concentrations of parameters in the barren-ground caribou meat were very comparable to those found in supermarket meats in the Total Dietary Study (Health Canada 2011; Table 2.3-11). Several POPCs were in low concentrations in most of the barren-ground caribou samples. Average concentrations of cadmium, copper, lead, and uranium were generally higher in the caribou meat than the supermarket meat, while average concentrations of nickel, selenium, lead-210, cobalt, and zinc were generally higher in the supermarket meat (Figure 2.3-6). Barren-ground caribou meat chemistry detailed descriptive statistics are shown in Appendix C, Table 15.

2.3.4.2 Moose Meat

Average concentrations of parameters in the moose meat were very comparable to those found in supermarket meats in the Total Dietary Study (Health Canada 2011; Table 2.3-12). Similar to the caribou meat, several POPC concentrations were low measuring less than the MDLs in most of the moose samples. Average concentrations of aluminum, cadmium, copper and uranium were generally higher in the moose meat and were above supermarket values, while average concentrations of nickel, selenium, zinc, lead-210, and cobalt were generally higher in the supermarket meat (Figure 2.3-6). Moose meat chemistry detailed descriptive statistics are shown in Appendix C, Table 17.

2.4 Discussion and Conclusion

In the previous sections, water, fish, soil, berry, and mammal chemistry results were each separately compared to guidelines, supermarket food data, and/or regional reference ranges (when available), in order to assess if the traditionally harvested foods from areas selected by the communities in northern Saskatchewan present human health concerns. Based on the available information, the following observations were made:

1. Parameter concentrations measured in water quality samples from waterbodies near each community do not suggest there is any concern to freshwater aquatic life or drinking water quality for northern residents.

2. Parameter concentrations in fish flesh from waterbodies near each community were generally low, generally within the range of regional reference values, or within the range of values measured in supermarket fish. It should be noted, however, that one lake trout from the community of Stony Rapids contained mercury concentrations above the fish consumption guideline 0.5 µg/g. Mercury concentrations are unrelated to uranium mining effects, but are monitored due to human health concerns. It is recommended that northern residents consult the provincial document, Mercury in Saskatchewan Fish: Guidelines for Consumption for more information about consumption guidelines relating to mercury in fish tissue in their area (SE 2011). In addition, selenium and uranium concentrations in lake whitefish samples from Uranium City were slightly higher than those found in supermarket fish and maximum regional reference values.

3. Parameter concentrations in berries from each community were also low, often within the range of regional reference data, or within the range of values measured in supermarket berries. One exception to this is the uranium concentrations in blueberry samples from Fond du Lac and Stony Rapids which were higher than regional reference data and supermarket berries. However, it is important to point out that many of the berries samples contained analyte concentrations below the MDL. The issue relates to the MDL, which were a magnitude higher than the mean supermarket concentrations.

4. Parameter concentrations measured in barren-ground caribou and moose meat samples were low, often below MDL and often lower than concentrations observed in supermarket meat.

5. Overall, the results of the community sampling program indicate that POPCs in traditionally harvested country foods are below or similar to those in supermarket foods consumed by the general Canadian population. Presently, there appear to be no measureable/detectable effects from uranium mines on the country foods consumed in communities monitored. A better understanding will be gained through time as more sampling years and improved MDLs in future laboratory sample analyses.

3.0 TECHNICAL PROGRAM

3.1 Introduction

3.1.1 Background

Several uranium mining operations are located in northern Saskatchewan and while environmental effects are monitored near each mining operation (e.g. Environmental Effects Monitoring (EEM): Environment Canada; Environmental Monitoring Program (EMP): Saskatchewan Ministry of the Environment and Canadian Nuclear Safety Commission), a program monitoring potential long-range cumulative environmental effects of uranium mining operations is not currently completed (the last year of monitoring for the previous provincial CEM program was 2007). The EARMP technical program was specifically designed to monitor the potential long-range and cumulative aquatic environmental effects over time downstream of uranium mining and milling operations in the Eastern Athabasca Region of northern Saskatchewan.

3.1.2 Study Areas

Four exposure and three reference locations were selected for the EARMP technical program in June 2011 as part of the study design process. Exposure locations include: the two outlets of Wollaston Lake, at the Fond du Lac River and the Cochrane River, the outlet of Waterbury Lake, and Crackingstone Inlet of Lake Athabasca (Figure 3.1-1). Reference areas included Cree Lake (for Wollaston Lake), Pasfield Lake (for Waterbury Lake), and Ellis Bay of Lake Athabasca (for the Crackingstone Inlet) (Figure 3.1-1). All four exposure locations were selected based on their relation to upstream uranium mining and milling operations. The following table summarizes the study areas assessed as part of the 2011 EARMP technical program.

General Study Area	Sampling Location	Designation	Upstream Mine Influence
Wollaston Lake	Outlet to Cochrane River	Exposure	Rabbit Lake Operation, Key Lake Operation, McClean Lake Operation
	Outlet to Fond du Lac River	Exposure	
Waterbury Lake	Outlet to Waterfound River	Exposure	McArthur River Operation and Cigar Lake Project
Lake Athabasca	Crackingstone Inlet	Exposure	Beaverlodge and Lorado Properties
Cree Lake	Armatage Bay	Reference for Wollaston Lake	None

General Study Area	Sampling Location	Designation	Upstream Mine Influence
Pasfield Lake	Off Smith Peninsula	Reference for Waterbury Lake	None
Lake Athabasca	Ellis Bay	Reference for Crackingstone Inlet	None

3.1.2.1 Wollaston Lake and the Cochrane River

Wollaston Lake is a unique lake in that it has two drainage systems. The primary outlet of Wollaston Lake is the Cochrane River, which flows out the northeast end of the lake and into Reindeer Lake, before draining into the Churchill River system and out to Hudson Bay. Wellebelove Bay is located at the outflow of Wollaston Lake to the Cochrane River and was sampled as an exposure area for the 2011 EARMP since it is located downstream of treated effluent release from the McClean Lake, Key Lake, and Rabbit Lake uranium mining and milling operations.

3.1.2.2 Wollaston Lake and the Fond du Lac River

Wollaston Lake's secondary outlet empties into the Fond du Lac River at Cunning Bay, located approximately 25 km from Collins Bay on the west side of Wollaston Lake. The Fond du Lac River then flows northwest and eventually discharges into Lake Athabasca, which in turn drains into the Slave River, and ultimately into the Mackenzie River. As it is located downstream of treated effluent release from the McClean Lake, Key Lake, and Rabbit Lake uranium mining and milling operations, the outlet of Cunning Bay into the Fond du Lac River was selected as the second exposure sampling area for the 2011 EARMP.

3.1.2.3 Waterbury Lake and the Waterfound River

The third selected exposure sampling area was located at the outlet of Waterbury Lake close to Kelly Bay, which is located at the northwest end of Waterbury Lake approximately 25 km downstream from the Cigar Lake Project. This location also acts as an exposure area for treated effluent release from the McArthur River Operation. Waterbury Lake then flows northeast through Theriau (Unknown) Lake, Durrant Lake, and the Waterfound River to join the Fond du Lac River at Waterfound Bay.

2.1.4 Lake Athabasca and the Crackingstone River

Cameco manages the decommissioned Beaverlodge uranium mine/mill site located on the north shore of Beaverlodge Lake. Beaverlodge Lake is the receiving environment for water exiting the Beaverlodge decommissioned site located on the north shore of the lake. In addition, Beaverlodge Lake is the receiving environment for the discharges from at least nine other abandoned uranium mine sites and one former uranium mill tailings area (the Lorado Uranium Mining Ltd. mill site) within the Beaverlodge Lake watershed. Martin Lake is located immediately downstream of Beaverlodge Lake and flows northwest into Cinch Lake and continues west from Cinch Lake into the Crackingstone River, which flows southwest and empties into Crackingstone Bay of Lake Athabasca. The outlet of the Crackingstone River into Crackingstone Bay (referred to herein as the Crackinstone Inlet) in Lake Athabasca was the final exposure area selected for the 2011 EARMP technical program.

3.1.3 Study Design and Objectives

The objective of the EARMP technical program is to monitor converging waterbodies through time and determine whether environmental effects, including cumulative environmental effects, occur in relation to uranium mining operations in northern Saskatchewan. To meet this objective, the technical program focused on gathering yearly limnology, water chemistry, sediment chemistry, fish chemistry, and benthic invertebrate community data from exposure locations located downstream of converging watersheds that are exposed to mining and milling operations in the Eastern Athabasca Region as well as corresponding reference locations. Data analyses for year 1 of the EARMP technical program were not meant to be exhaustive, but rather describe any spatial patterns in the year 1 data and provide a basis for future comparisons. As more cycles of the EARMP technical program are completed, temporal comparisons of the data will be possible. Reference area data will provide context on whether any temporal differences are detected or consistent through the region or specific to exposure areas.

Although a full suite of parameters was assessed for each media type, data analysis focused on the following parameters of concern which have historically been identified in the uranium mining and milling environmental assessment process:

Parameters of Potential Concern	
Aluminum	Organic Carbon*
Ammonia*	pH*
Arsenic	Polonim-210
Cadmium	Radium-226
Cobalt	Selenium
Copper	Specific Conductivity*
Iron	Total Hardness*
Lead	Thorium-230
Lead-210	Uranium
Mercury	Vanadium
Molybdenum	Zinc
Nickel	

*For water only

The original design involved pairing each exposure to a given reference for pairwise comparisons. However, due to the heterogeneity of sediment particle sizes fractions between a number of exposure-reference pairs in the 2011 samples, it was in some instances necessary to pool reference site data to compensate for the particle size fraction differences within the references (see Section 3.3.2.1). A summary of all samples collected at each waterbody for the technical sampling program is presented in Table 3.1-1.

3.2 Methods

3.2.1 Limnology

A YSI Pro Plus multi-meter was used for measuring water temperature, dissolved oxygen, pH, and specific conductance. Measurements were collected at 1.0 m intervals at each limnology station. Water transparency was measured using a standard black and white Secchi disc (20 cm in diameter).

3.2.2 Water Chemistry

Composite water samples were collected with the limnological measurements at one of the five sediment sampling stations on each waterbody (Figures 3.2-1 to 3.2-7). Prior to field collections, sample bottles, preservative, and field and trip blanks for quality control/quality assurance analyses (QA/QC) were obtained from SRC laboratories in

Saskatoon. Detailed sample-specific information (i.e., date, location, GPS coordinates, and composite depths) were collected during sampling.

Composite water samples were taken from 15 cm below the surface, mid-point in the water column, and 0.5 m above the bottom, using a Kemmerer water-sampling bottle. The surface sample was collected first, followed by the mid-column, and the near-bottom portion. In this way, disturbance of the upper sections of the water column was avoided during sampling. Sample bottles were filled completely to avoid air space in the container. Preserved samples were placed in coolers during sampling events and transferred to a refrigerator for storage while the field program was completed. Samples were submitted to the SRC laboratory in Saskatoon for analysis[2].

SRC is certified and accredited by the Canadian Association for Environmental Analytical Laboratories (CALA) and the Standards Council of Canada (SCC). As such, SRC adheres to strict QA/QC standards and protocols. A duplicate water sample, a field blank, and a trip blank were also collected for QA/QC purposes. A threshold relative percent difference (RPD[3]) of ≥40% between a sample concentration and that of its QA/QC duplicate was selected to screen the data for irregularities. Flagged values were double checked with the laboratory and the sample was re-tested if warranted.

3.2.3 Sediment Chemistry and Particle Size

Sediment chemistry and sediment particle size samples were collected at five replicate stations per waterbody using a Tech-ops sediment corer in depths ranging from 6.0 m to 8.0 m (Figures 3.2-1 to 3.2-7). The location of each sediment sampling station was recorded using a hand held GPS unit and the sample collection depth was noted. A sediment profile description was recorded at each station and a photograph was also taken. Sediment core logs are provided in Appendix D.

All sediment samples were double bagged and frozen until submission to SRC for analysis. Particle size samples were composed of the 0-5 cm sediment horizon. The analysis of sediment particle size followed the recommended classifications in the Environmental Effects Monitoring (EEM) program (Environment Canada 2012), which are as follows:

[2] All metals were analyzed with ICP-MS.
[3] RPD = ABS((Duplicate-Sample)/(Duplicate+Sample)/2*100)

Classification	Particle Size
Gravel	2.0 to 16.0 mm
Coarse Sand	2.0 to 0.2 mm
Fine Sand	0.2 to 0.062 mm
Silt	0.062 to 0.0039 mm
Clay	<0.0039 mm

Sediment chemistry cores were divided into 0-2 cm, 2-4 cm, and 4-6 cm horizon and each horizon was a composite of two or three cores. The 0-2 cm horizon samples were submitted to SRC for chemical analyses[4], while the 2-4 cm and 4-6 cm horizons were archived for potential future analysis. The QA/QC protocol consisted of collecting duplicate samples for at least 10 % of the samples collected for the technical program (four duplicate samples). A threshold RPD[5] of ≥40% between a sample concentration and that of its duplicate was selected for screening the data for irregularities. Flagged values were double checked with the laboratory and re-analysed if warranted.

3.2.4 Benthic Invertebrate Communities

Benthic invertebrate community sampling stations were co-located with the sediment chemistry and particle size samples (Figures 3.2-1 to 3.2-7). A composite sample of five Ekman dredges (0.052 m^2) was collected at each of the five replicate stations. Samples were concentrated through a 500 μm Nitex sieve and preserved in the field using 10% buffered formalin.

Preserved benthic invertebrate samples were sorted and keyed according to the latest methods (Appendix E) and taxonomic keys by a qualified taxonomist, Dr. Jack Zloty, a Professor Emeritus from the University of Calgary. Invertebrates were separated from other material, enumerated under a dissecting microscope, and identified to the lowest taxonomic level feasible (typically to genus or species). Wet weight mass of major invertebrate groups was measured using an analytical balance to a precision of 0.1 mg. A reference collection was retained by the taxonomist for all taxa identified from the samples. Sample sorting efficiency averaged 98.8%.

[4] All metals were analyzed with ICP-MS.
[5] RPD = ABS((Duplicate-Sample)/(Duplicate+Sample)/2*100)

3.2.5 Fish Chemistry

The fish captured for chemistry were collected under the authority of a Special Collection Permit issued by the Ministry of Environment in La Ronge and Meadow Lake. It is noted that during the fish collections, every effort was made to reduce incidental fish mortality.

Methods used to capture fish included angling and spawning nets. Angling was performed using casting rods and commercial spinning spoons. Fishing effort for this method was measured in person-minutes of angling. The spawning nets used were 10 m long and 1.8 m high with 7.6 cm mesh (stretch measure). Generally between 3 and 10 panels were connected to increase fish catch success. Each angling or gill net deployment location was recorded with a hand held GPS unit. Spawning nets were the main fishing method used in each waterbody and produced the greatest number of fish samples. On several occasions, however, overnight net sets were utilized due to poor catch success during late fall daytime hours.

The original primary target fish species included northern pike and white sucker (*Catostomus commersoni*), a piscivorous top predator and a bottom-feeding species, respectively. However, these two species were particularly difficult to catch during the late fall. Thus, lake trout and lake whitefish became the two primary target species. Although the primary target species were different from originally planned, up to five samples of northern pike, white sucker, and longnose sucker (*Catostomus catostomus*), the secondary target species, were kept whenever possible. The objective for fish chemistry was to collect five samples of each primary and secondary target species from each waterbody, whenever feasible within the time constraints of the program.

All fish captured were identified to species, measured (fork length) to the nearest 1 mm, weighed to the nearest 20 g, sexed, and their spawning condition was recorded. In addition, a visual external health assessment was completed for each fish. For all fish retained for chemical analyses, the stomach contents were described. Ageing structures (otoliths for lake trout and lake whitefish, cleithra for northern pike, and fin rays for white and longnose sucker) were removed and submitted to Northshore Environmental Services for ageing analysis. The fish were submitted to SRC for chemical analysis of the flesh and bone. Some samples consisted of a composite of two fish in order to provide sufficient sample material to reach desired MDLs.

3.2.6 Data Analysis

Following general CanNorth QA/QC protocols, data were initially examined for potential outliers by looking at scatterplots and box plots. Suspicious points were examined for potential errors, if no errors were noted, outliers were flagged based on SR. Data that were more than four SR (i.e., SR >4) from the mean were removed and the analysis was re-run. Results were presented with and without the outliers present; if it was determined that the outliers impacted the interpretation of the results (i.e., changed the significance of the result).

3.2.6.1 Chemistry

Data analysis focused on parameters identified in Section 3.1.3, although detailed data and summary statistics are presented for the full suite of parameters assessed on each media type in Appendix F. For the calculation of summary statistics, concentrations measured below the laboratory MDL were set at the MDL. This approach was deemed more conservative than setting non-detect values to half the MDL.

To meet the objectives of the EARMP technical sampling program, concentrations of the select parameters were compared:

1) to available guidelines for the protection of freshwater aquatic life; and,
2) spatially between reference and exposure areas.

Guidelines utilized for comparison included: Saskatchewan Surface Water Quality Objectives (SSWQO; SE 2006), the Canadian Water Quality Guidelines (CWQG; CCME 2012), the Interim Sediment Quality Guideline (ISQG; CCME 2012), the sediment Probable Effects Level (PEL; CCME 2012), the sediment Lowest Effect Level (LEL; Thompson et al 2005), and the fish flesh mercury consumption guidelines (SE 2011). The CCME ISQG represents the concentration below which there is unlikely to be any adverse biological effects (CCME 2002). The CCME PEL is the guideline level above which adverse effects are expected to frequently occur (CCME 2012). The LEL represents the concentration below which harmful effects on benthic invertebrates are not expected to occur (Thompson et al. 2005).

Spatial comparison of reference and exposure data was completed using one-way Analysis of Variance (ANOVA). All univariate statistical analyses were completed using SYSTAT 13 software with an alpha set to 0.05. If data did not meet the assumptions of

ANOVA, they were log- or square-root transformed. If the transformed data did not meet the assumptions, non-parametric Kruskal-Wallis tests were performed.

Multivariate analyses were also used to identify fish flesh and bone chemistry patterns using Principal Component Analysis (PCA). These analyses were performed using Primer 6 software as per Clarke and Warwick 2001.

3.2.6.2 Community

To prepare the data for community analysis, the taxa considered as non-benthic (Copepoda and Hydracarina) were removed prior to metric calculations. To assist in the interpretation of the benthic invertebrate results, the data are presented in several formats. For each station, benthic invertebrate density (mean number of organisms/m^2), richness (the total and mean number of taxa), and biomass are reported. Similar to the chemistry univariate comparisons, all benthic invertebrate univariate comparison were completed using one-way ANOVAs with SYSTAT 13 software and an alpha set to 0.05. Data were log or square-root transformed if required to meet the assumptions of ANOVAs. If data could not be transformed to meet the assumptions, non-parametric Kruskal-Wallis tests were performed.

In addition to univariate statistical methods, multivariate statistics were used to compare the taxonomic composition (at the lowest practical taxonomic level) of benthic invertebrate communities between reference and exposure areas using PRIMER 6 software. Non-metric multidimensional scaling (NMDS) ordination was generated to graphically compare the similarities (calculated from a Bray-Curtis similarity matrix performed on density data) between benthic invertebrate communities. The NMDS plots were verified for patterns by superimposing cluster analysis results. All analyses were run using the settings recommended for PRIMER statistical methods (Clarke and Warwick 2001). Where significant differences were found, SIMPER (similarity percentages) analysis was used to determine which taxa contributed to the dissimilarity between areas.

3.3 Results

3.3.1 Water Quality

3.3.1.1 Limnology

Limnology profiles are presented in Table 3.3-1 for each sampling area. Maximum station depths ranged between 6.7 m and 7.8 m. Most Secchi disk depths ranged between 4.1 m and 5.8 m, except in Pasfield Lake where it was of 6.7 m. This indicates overall good water transparency, especially in Pasfield Lake.

Water temperatures varied little with depth, usually ranging between 10.4 °C and 12.5 °C, except at the Fond du Lac River where temperatures were lower (3.4 °C or 3.5 °C) largely as a result of the later sampling date (Table 3.3-1). Dissolved oxygen levels were high, usually ranging between approximately 9 mg/L and 10 mg/L, and similar to temperature, differed little across depth or waterbody. Dissolved oxygen levels in the Fond du Lac River were higher, ranging between approximately 11 mg/L and 12 mg/L. This was likely the result of the higher solubility of oxygen at lower water temperatures rather than the result of inherently higher oxygen levels than at the other waterbodies. Dissolved oxygen levels measured at all depths and in all seven waterbodies met the SSWQO and the CWQG of 6.5 mg/L for aquatic life stages other than early stages (SE 2006; CCME 2012). The majority of values for all waterbodies also met the SSWQO and the CWQG for early life stages (9.5 mg/L), although some values were marginally lower (SE 2006; CCME 2012).

Surface specific conductance across all seven waterbodies ranged between 17.3 µS/cm and 65.3 µS/cm, with little change through depth. Conductivity was highest in Lake Athabasca (~65 µS/cm), intermediate in the Cochrane and Fond du Lac rivers (~32 µS/cm), and lowest in Cree, Waterbury, and Pasfield lakes (~17-21 µS/cm).

The pH values measured in all waterbodies were neutral to slightly basic, tending to decrease slightly with depth for each waterbody. Values ranged between approximately 8.0-8.5 near the surface to approximately 7.5 near the bottom. These values met the CWQG (6.5-9.0) at all depths and at all waterbodies assessed.

3.3.1.2 Water Chemistry

Water chemistry samples were collected from one replicate station in each of the sediment/benthic invertebrate community sampling areas during the fall of 2011. A summary of the results is presented in Table 3.3-2, while detailed results are presented in Appendix F, Table 1. The raw SRC results are provided in Appendix B.

QA/QC

SRC concluded that all QC results were within the specified limits and are considered acceptable (Appendix B). The results of the field duplicate, field blank, and trip blank results are presented in Appendix B, Table 1. Of the 54 parameters assessed, 3 (chloride, lead, and arsenic) had an RPD ≥40%. However, all three of these parameters measured at or close to the MDL (<5 times the MDL) and therefore have a high degree of uncertainty (EC 2002) associated with them. Thus, these results are considered acceptable. In addition, analytical results for the field blank and trip blank samples were low or non-detectable and considered acceptable.

Comparison to Guidelines

The water chemistry results for each waterbody of the technical program are presented in Table 3.3-2 along with available SSWQO and CWQG. Water quality guidelines for the protection of freshwater aquatic life are available for 14 of the 23 parameters of potential concern assessed as part of the water quality sampling program. In all cases, concentrations of these parameters were below available guidelines or as is the case with cadmium, below the MDL. The MDL for cadmium is higher than the available guidelines. Apart from cadmium where the resolution was insufficient, these results suggest that these parameter concentrations pose no threat to the protection of freshwater aquatic life.

Comparison to Reference

The majority of the parameters assessed in all waterbodies were at or below MDL (Table 3.3-2). Of the 23 parameters assessed in the Cochrane and Fond du Lac rivers, pH, total hardness, specific conductivity, organic carbon, aluminum, and molybdenum were higher in exposure areas as compared to the Cree Lake reference area. In addition, zinc was higher in the Cochrane River as compared to Cree Lake. Similarly, organic carbon,

aluminum, and molybdenum were slightly higher in the Waterbury Lake exposure area as compared to Pasfield Lake reference area along with iron. In Lake Athabasca, aluminum, iron, uranium, arsenic, and vanadium were higher in the Crackingstone Inlet exposure area as compared to the Ellis Bay reference area. Although these characteristics could be related to historic uranium mining and milling, they could also be related to inherent waterbody differences.

3.3.2 Sediment Chemistry and Particle Size

3.3.2.1 Particle Size Distribution

Particle size and organic carbon content was measured for the 0-5 cm horizon from each sediment and benthic invertebrate community replicate sampling station. Data are detailed in Appendix F, Tables 2 and 3 and summarized in Figure 3.3-1. Sediment particle size fractions differed widely across the seven waterbodies, mainly in terms of total sand content (fine sand + coarse sand) as opposed to fine particle content (clay + silt).

The main reference versus exposure differences were noted in the Cochrane/Fond du Lac River versus Cree Lake and the Crackingstone Inlet versus Ellis Bay comparisons. Cochrane River and Fond du Lac River exposures both contained more clay (26.9% and 6.1%) and substantially more silt (65.6% and 85.6%) than their reference that contained 2.8% clay and 28.2% silt (Figure 3.3-1). Cree Lake contained substantially more fine and coarse sand (27.1% and 41.8%) than either exposure areas. In Lake Athabasca, the Crackingstone Inlet (exposure) contained noticeably more fine and coarse sand (34.1% and 6.8%) than its reference, Ellis Bay, which contained only 0.6% and 0.3% fine and coarse sand, respectively (Figure 3.3-1). Additionally, there was substantially less clay in Crackingstone Inlet (6.1%) than in Ellis Bay (38.6%).

The major differences observed in sediment particle size fractions have the potential to influence sediment chemistry concentration results because of the varying affinity of particle size fractions for metals and radionuclides. These differences in particle size fractions were further investigated via ANOVA and via multivariate analyses to determine their statistical significance (Tables 3.3-3 and 3.3-4). Although most physical parameters differed significantly between each exposure and its reference, the magnitude of these differences were not equal across each exposure-reference pair. The most important differences included the greater sand content (and the lower fine particle

content) in Cree Lake compared to Cochrane River and Fond du Lac River, and the lower sand content (associated with greater fine particle content) in Ellis Bay compared to Crackingstone Inlet (Figure 3.3-1).

The importance of these latter differences was further confirmed by a multivariate analysis of similarity (ANOSIM) that found that across all particle size fractions and physical properties, the Cochrane River and the Fond du Lac River sediment significantly differed from Cree Lake (at the 5% level), and the Crackingstone Inlet sediment significantly differed from Ellis Bay. However, the sediment from Waterbury Lake did not differ significantly from that of Pasfield Lake.

To further test whether these significant differences affected the measured concentrations of the 17 parameters assessed in the sediment, a correlation analysis was performed. This analysis revealed that the sediment chemistry concentrations were highly correlated to each of total fine particles, coarse sand, and silt, with correlation coefficients ranging between 0.723 and 0.752 (Table 3.3-4). This means that 72% to 75% of the variability in all 17 parameter concentrations across all waterbodies and samples followed fine particle, coarse sand, and silt contents of the sediment samples. For this reason, it would be expected that the pairwise comparison of sediment chemistry concentrations between Cochrane River and Cree Lake, between Fond du Lac River and Cree Lake, and between Crackingstone Inlet and Ellis Bay would yield biased results. Therefore, it was deemed more appropriate to pool the three reference sites together when testing for significant parameter concentration differences between exposure and reference sites rather than doing pairwise comparisons.

3.3.2.2 Sediment Chemistry

A summary of the 2011 parameter of potential concern concentrations in the EARMP technical program sediment samples is presented in Table 3.3-5. Detailed 2011 sediment chemistry data are provided in Appendix F, Table 4. Copies of laboratory reports are included in Appendix B. Core log sheets are provided in Appendix D and locations of sampling stations are shown in Figures 3.2-1 to 3.2-7.

QA/QC

SRC concluded that all QC results were considered acceptable (Appendix B). A 40% RPD was used as a threshold to compare duplicate sample parameter of potential concern

concentrations to primary sample values. Of the four duplicate samples collected, there were five instances where a parameter RPD between a sample and duplicate was ≥ 40% (Appendix B, Table 2). However, in most cases, a high degree of uncertainty was associated with the results as the levels were at or near the detection limit. In the case of radium-226 in the Crackingstone Inlet and zinc in Waterbury Lake, a re-check of the results by SRC confirmed the values for the sample. Thus, the difference between the test values and field duplicate values were attributed to heterogeneity within the sampling station in accordance with Environment Canada (2012).

Sediment Chemistry

A summary of the 2011 parameter of potential concern concentrations in each sampling area along with available sediment quality guidelines is presented in Table 3.3-5 with a summary of the spatial statistical comparisons provided in Table 3.3-6. Data are also summarized visually in Figure 3.3-2. Detailed sediment chemistry results and descriptive statistics are presented in Appendix F, Tables 4 and 5.

Spatial comparisons of the exposure data to the pooled reference data identified a number of statistical differences (Table 3.3-6). In the Fond du Lac River sediment, concentrations of aluminum, copper, nickel, uranium, radium-226, thorium-230, and vanadium did not differ from the pooled reference data while the remaining 10 parameters were statistically higher in the exposure area. Few differences were noted between the remaining reference and exposure comparisons. Concentrations of cadmium, lead, molybdenum, lead-210, and polonium-210 were statistically higher in the Cochrane River sediment as compared to the pooled reference area, while no difference was observed in the remaining 12 parameters assessed. In the Crackingstone Inlet, concentrations of cadmium were lower than those observed in the pooled reference data, while concentrations of selenium, uranium, thorium-230, and vanadium were higher. In Waterbury Lake, concentrations of cadmium were also statistically lower than those observed in the pooled reference data while concentrations of molybdenum were statistically higher.

It is important to point out, that although differences were observed between reference and exposure data, for the most part these concentrations remained well below available sediment quality guidelines for the protection of freshwater aquatic life (Table 3.3-5). Mean concentrations of molybdenum and arsenic in the Fond du Lac River were

significantly higher than those observed in the pooled reference data and were elevated above at least one of the available sediment quality guidelines. Mean arsenic concentrations measured 8.52 ± 3.71 µg/g in the Fond du Lac River, which is higher than the ISQG of 5.9 µg/g, but lower than the LEL of 9.8 µg/g and the PEL of 17 µg/g. Mean molybdenum concentrations in the Fond du Lac River measured 19.2 ± 5.8 µg/g, which exceeds the LEL of 13.8 µg/g. There is no available CCME guideline for molybdenum. Mean vanadium concentrations were also elevated above the LEL of 35.2 µg/g in both the Lake Athabasca reference and exposure areas.

3.3.3 Benthic Invertebrate Communities

A summary of the benthic invertebrate community density, taxon richness, and biomass is presented in Table 3.3-7, with detailed taxonomic enumeration presented in Appendix F, Table 6 and detailed biomass data presented in Appendix F, Table 7.

Common taxa in the study waterbodies included Hirudinea (leeches), Oligochaeta (aquatic earthworms), Bivalvia (clams), Gastropoda (snails), Amphipoda (scuds), Cladocera (water fleas), Trichoptera larvae (caddisflies), and Chironomidae larvae (midges) (Appendix F, Table 6). Ephemeroptera (mayflies), Megaloptera (fishflies), and Odonata (dragonflies) also occurred but only in a few samples, generally. In terms of biomass, amphipods and chironomids tended to be the dominant taxa in most samples, although Gastropoda and Hirudinea dominated the sample biomass in some samples (Appendix F, Table 7).

3.3.3.1 Univariate Comparisons

To remain consistent with the sediment chemistry comparisons, density, taxon richness, and biomass were compared between exposure and pooled reference area data. The mean density of benthic invertebrates in the Fond du Lac River (1,437 ± 130 organisms/m^2) and Waterbury Lake (3,435 ± 1405 organisms/m^2) were statistically lower than the pooled reference areas (13,229 ± 11,185 organisms/m^2), while no statistical difference was observed for the Cochrane River (8,404 ± 1,931 organisms/m^2) or Crackingstone Inlet (9,302 ± 2,060 organisms/m^2) comparisons (Table 3.3-8).

Taxon richness was assessed at the lowest practical taxonomic level, with the mean number of taxa per m^2 ranging between 13 ± 5 in the Fond du Lac River and 24 ± 4 in

Cree Lake (Table 3.3-7). Taxon richness was significantly lower than the pooled reference area data (22 ± 4) in the Fond du Lac River and Crackingstone Inlet (17 ± 1), while no difference was observed between the reference area data and the Cochrane River (21 ± 4) and Waterbury Lake (19 ± 6) (Table 3.3-8).

Mean biomass ranged between 0.91 ± 0.21 g/m^2 in Waterbury Lake to 7.90 ± 5.27 g/m^2 in Pasfield Lake. Similar to the density data, mean biomass was significantly lower in Waterbury Lake and the Fond du Lac River (1.16 ± 0.13 g/m^2) as compared to the pooled reference area data (5.82 ± 4.07 g/m^2), while no statistical difference was observed between the Cochrane River (2.06 ± 0.63 g/m^2) and Crackingstone Inlet (3.82 ± 0.85 g/m^2) comparisons (Table 3.3-8).

3.3.3.2 Multivariate Comparisons

Although benthic invertebrate density, biomass, and taxon richness are useful for comparing benthic invertebrate communities, these univariate comparisons provide little information with respect to community composition differences between the reference and exposure areas. Further multivariate analysis of the benthic invertebrate communities indicate statistical differences in community composition between all study lakes. Community composition differences are depicted in the cluster analysis and NMDS plots presented in Figures 3.3-3 and 3.3-4, respectively.

The cluster analysis revealed two major points: first, all waterbodies clustered separately at between approximately only 30% to approximately 60% similarity (expressed on the y-axis; Figure 3.3-3), meaning that each waterbody had a benthic invertebrate community that was only 30% to 60% similar to that of other waterbodies in terms of densities of each taxon. These differences between waterbodies were statistically significant. No difference was identified within waterbodies, with the exception of replicate stations in Waterbury Lake (Figure 3.3-3).

The NMDS results generally agreed with the cluster analysis results. The Fond du Lac River samples clustered furthest away from samples from other waterbodies, and were less than 40% similar to any other waterbody (Figure 3.3-4). The Crackingstone Inlet dots were clustered separate from those of Ellis Bay, but they remained similar within 60%. Finally, the Cochrane River, Cree Lake, Waterbury Lake, and Pasfield Lake dots, although usually separated from one another by 60%, were similar to one another within

40%. Additionally, the Crackingstone Inlet-Ellis Bay cluster was close to the Cochrane River-Cree Lake-Waterbury Lake-Pasfield Lake cluster while the Fond du Lac River cluster was relatively more distant from all other waterbodies. This indicates that while some exposures were relatively similar to a given reference community, the Fond du Lac River exposure benthic invertebrate community was not similar to any of the reference waterbodies, including Cree Lake which had originally been selected as its reference.

SIMPER analysis was used to determine which taxa contributed to the dissimilarity between the communities in each of the study lakes as represented in the NMDS and cluster analyses plots (Table 3.3-9). The Cochrane River differed from the Cree Lake reference area by 40.78% with 36 taxa contributing to 90.9% of the total dissimilarity between waterbodies. *Zalutschia* (a non-biting midge) and *Diporeia hoyi* (a scud) contributed to more than 5% to the dissimilarity between the two waterbodies. These two taxa affected the dissimilarity by being both in relatively high densities in Cochrane River while being absent in Cree Lake. Among the other relatively high contributors, *Bezzia* (a sand fly) and *Hexagenia limbata* (a mayfly) were the main taxa that occurred in Cree Lake but not in Cochrane River.

As was observed in the MDS analysis, the Fond du Lac River benthic invertebrate community was somewhat different from the other waterbodies. It was therefore expected that the total dissimilarity between Fond du Lac River and Cree Lake would be high. Dissimilarity between these two waterbodies' benthic invertebrate communities was 65.09% with 30 taxa explaining 90.4% of the dissimilarity. Four taxa contributed each by more than 5% to this total dissimilarity, including *Diporeia hoyi*, *Tanytarsus* (a non-bitting midge), Macrothricidae, and *Eurycercus* (a waterflea). Among these, *Diporeia hoyi* contributed to the total dissimilarity by being in high abundance in Fond du Lac River while being absent from Cree Lake. The remaining three taxa, *Tanytarsus*, Macrothricidae, and *Eurycercus*, were conversely in high abundance in Cree Lake while being in low abundance or absent from Fond du Lac River.

Sampling areas in Lake Athabasca were 56.72% dissimilar with 34 taxa contributed to approximately 90% of the dissimilarity. Five taxa contributed by 5% or more to the dissimilarity, namely *Diporeia hoyi*, the *Thienemannimyia* group (a non-biting midge), *Chironomus* (a non-biting midge), *Dicrotendipes* (a non-biting midge), and *Probezzia* (a biting midge). *Diporeia hoyi* and *Probezzia* were in high abundances in Crackingstone Inlet but absent or in low abundance in Ellis Bay. Conversely, the *Thienemannimyia*

group, *Chironomus*, and *Dicrotendipes* were abundant in Ellis Bay while absent or very few in Crackingstone Inlet.

In the Waterbury Lake versus Pasfield Lake benthic invertebrate community comparisons, 32 taxa contributed to approximately 90% of the dissimilarities between the two areas. Taxa each explaining over 5% of the dissimilarity included *Corynocera* (a non-biting midge), *Cricotopus/Orthocladius* (a non-biting midge), Macrothricidae, *Hyalella azteca* (a scud), and *Eurycercus*. *Corynocera* and *Cricotopus/Orthocladius* were abundant in Pasfield Lake but rare or absent in Waterbury Lake, while Macrothricidae, *Hyalella azteca*, and *Eurycercus* were abundant in Waterbury Lake but not Pasfield Lake. The total dissimilarity between these two waterbodies was 55.45%.

3.3.4 Fish

3.3.4.1 Fish Collection Effort

Fish species that were captured included lake whitefish, lake trout, longnose sucker, white sucker, northern pike, and burbot (*Lota lota*) (Appendix F, Table 8). Among these fish, 130[6] fish were kept for chemistry, and an additional 96 fish were caught but were released because sufficient sample numbers had been collected for a given species and waterbody, or because that species was in numbers too low for chemical analysis (e.g.: burbot; Appendix F, Table 8).

Although northern pike and white sucker were the target species originally chosen for collection, the capture success for both these species was generally very poor in the vast majority of waterbodies. Therefore, it was deemed necessary to substitute lake trout for northern pike as the top predator species collected, and to use lake whitefish instead of white sucker as the bottom-feeding benthophage target species. Northern pike and white sucker, as well as longnose sucker were collected whenever possible nonetheless. The three incidental burbot catches that occurred during the collection campaign were not kept for chemistry as they were too rarely caught to provide sufficient data. Basic descriptive statistics on the length, weight, and age of fish kept for chemistry are provided in Table 3.3-10.

[6] Among these fish, 25 were also used as part of the community program.

3.3.4.2 Fish Chemistry

Three approaches were used to investigate the fish chemistry data. The first approach involved using Principal Component Analysis to determine the general trends in overall fish chemistry, and the second involved using conventional statistical analyses (ANOVA or Kruskal-Wallis tests) to determine whether concentrations of each parameter significantly differed between exposures and reference areas. The third approach involved comparing parameter concentrations to guidelines, when available.

The fish chemistry data are presented in detail in Appendix F, Tables 9 to 24 and summarized in Figures 3.3-5 to 3.3-8. The raw SRC results along with QA/QC reports are provided in Appendix B.

General Trends

The Principal Component Analysis (PCA) was used to summarize the 18 parameters of potential concern in each of bone and flesh in the five species of fish. The PCA plots demonstrate how chemically similar (or different) the fish samples are according to the distance between each specimens' dot on the PCA plot (i.e., the greater the distance the greater the difference). Unlike univariate analyses, this approach synthesizes the differences for all parameters across bone and flesh for all specimens of differing species and waterbodies rather than presenting differences separately for each parameter, species, tissue, and waterbody. The two-dimensional plots are composed of the PC1 axis and the PC2 axis, corresponding to the x and y axes, respectively. Each axis represents a combination of various parameter concentrations (see Table 3.3-11).

As can be seen in Figure 3.3-5, the fish chemistry data clearly segregates in two distinct clusters: one cluster at the left of the PCA plot for bone chemistry and one at the right for flesh chemistry. This signifies that bone chemistry is more similar between species and waterbodies than it is similar to flesh chemistry within any given species or waterbody (and reciprocally for flesh chemistry). The eigenvectors for each parameter, or the amount and direction of "pull" each parameter has along each of the PC1 and PC2 axes are listed in Table 3.3-11. The PC1 axis (Figure 3.3-5) corresponded largely to increasing concentrations of cadmium, lead, nickel, uranium, zinc, lead-210, radium-226, thorium-230, cobalt, and vanadium to the left of the PC1 axis (negative values in Table 3.3-11), and increasing concentrations of copper and mercury to the right of the PC1 axis

(positive values in Table 3.3-11). The segregation between the flesh and the bone data therefore demonstrates that flesh tended to contain more copper and mercury than bone, which conversely tended to have higher concentrations of cadmium, lead, nickel, uranium, zinc, lead-210, radium-226, thorium-230, cobalt, and vanadium.

When looking more closely at these same PCA results, clear clusters occur according to species (Figure 3.3-5). The data from lake trout is higher along the PC2 axis in both the bone and flesh clusters, followed with the northern pike data that occupies the mid to mid-high portion in each of the bone and flesh clusters. White sucker and longnose sucker are both intermediate-low along the PC2 axis (both in the flesh and the bone clusters), with lake whitefish data occupying the lowest portion along the PC2 axis. The PC2 axis corresponded largely to increasing concentrations of mercury and arsenic towards the top portion of the plot (positive eigenvectors, Table 3.3-11), and increasing concentrations of selenium and polonium-210 towards the bottom of the plot (negative eigenvectors, Table 3.3-11). This would therefore suggest that lake trout contained the highest mercury and arsenic levels among the five species under study, followed by northern pike. Conversely, the remaining three species found in the lower portion of the plot, longnose sucker, white sucker, and especially lake whitefish, contained the least amount of mercury and arsenic, but contained the highest amounts of polonium-210 and selenium.

Further analysis of the fish chemistry data to identify potential exposure versus reference patterns was completed by segregating the data into groups. These data were segregated by predatory species, namely lake trout and northern pike, and by bottom-feeding species, namely longnose sucker, white sucker, and lake whitefish.

In this separate analysis, the bone as opposed to flesh and the lake trout as opposed to northern pike trends occurred as in the previous analysis (Figure 3.3-6). The PC1 and PC2 axes captured a very high proportion of all chemistry differences in these samples, 67.9% and 9.2%, respectively (77.1% total). Along the PC1 axis, bone was situated on the left of the PC1 axis, while flesh was situated on the right. Bone was characterized by containing higher concentrations of cadmium, nickel, zinc, lead-210, radium-226, thorium-230, and cobalt, while flesh was characterized by containing more copper and mercury (see Table 3.3-12 for eigenvectors). Lake trout was characterized by containing more arsenic and mercury, while northern pike contained usually less of these, but more iron, selenium, zinc, and polonium-210 (Figure 3.3-6). Because the samples from the

references (Cree Lake, Ellis Bay, and Pasfield Lake) did not substantially segregate from those of the exposure lakes, no clear exposure effect was apparent on both these species (Figure 3.3-7).

In the case of bottom feeding species (longnose sucker, lake whitefish, and white sucker), bone and flesh clustered separately as observed earlier (Figure 3.3-8). Flesh, that was clustered on the right of the PC1 axis, was characterized by higher levels of copper and mercury (positive values along PC1; Table 3.3-13), compared to higher levels of lead, thorium-230, and vanadium (negative values; Table 3.3-13) in bone that clustered on the left. When scrutinized for exposure effects, the majority of the lake whitefish exposure data for bone occupied the mid to lower left corner of the plot (Cochrane River, Fond du Lac River, Crackingstone Inlet, and Waterbury Lake), while the majority of the reference lake whitefish data occupied the mid to upper portion of the plot (Cree Lake, Ellis Bay, Pasfield Lake), though some reference data also occurred in the lower portion (Ellis Bay). Therefore, overall, lake whitefish bones from exposure areas tended to contain more aluminum, selenium, and arsenic than reference lake whitefish bones. Although the flesh data of lake whitefish was not spread as widely as those for bone, this trend also occurred.

In longnose sucker bone, the reference as opposed to the exposure data occupied a similar range. In longnose sucker flesh, however, the exposure specimens occurred lower and nearer to the right corner of the plot than the reference fish. Thus, there is more mercury, selenium, and arsenic in longnose sucker flesh from exposure areas than from the reference areas. In white sucker, bone and flesh data from reference areas occurred higher up on the PC2 axis than in exposure areas. This suggests that in both bone and flesh, there was less mercury and selenium in reference areas, but more molybdenum, polonium-210, and copper.

Exposure and Reference Detailed Statistical Comparisons

The direct comparison of each of the 18 parameters of potential concern separately between exposure fish and pooled reference fish was performed for each species using ANOVA or non-parametric Kruskal-Wallis tests when the data did not meet ANOVA assumptions. These analyses were performed using the pooled reference data rather than using a separate reference for each exposure for consistency with the sediment analyses.

Among the five species under study, the only species for which a sufficient number of specimens were captured for statistical analysis in each waterbody was lake whitefish. For lake trout, specimens were in sufficient number for statistical comparison in all but one waterbody (Fond du Lac River), where only two lake trout were captured. For white sucker and longnose sucker, specimens were in sufficient numbers in only a small number of lakes. No statistical analysis could be performed on northern pike, because only one reference specimen was captured (among three reference waterbodies).

Spatial comparisons of the lake trout flesh and bone chemistry between the exposure areas and pooled reference areas identified few differences in parameter concentrations (Table 3.3-14). In the Cochrane River, statistical differences were identified in four parameters in the flesh and two parameters in the bone, however, only nickel in the flesh and mercury in the bone were statistically higher than the pooled reference areas. Concentrations of copper in the flesh and bone and zinc and radium-226 in the flesh were lower in the Cochrane River as compared to the pooled reference data. In the Crackingstone Inlet, two parameters in the flesh and four parameters in the bone differed statistically from the pooled reference data, with only arsenic in the bone being statistically higher than the pooled reference area data. Selenium in the flesh and bone, copper in the flesh, and nickel and cobalt in the bone were lower in the Crackingstone Inlet as compared to the pooled reference. Finally, in Waterbury Lake, two parameters in the flesh and two parameters in the bone differed statistically from reference, with mean concentrations of polonioum-210 in late trout flesh and mean concentrations of mercury in lake trout bone higher in Waterbury Lake as compared to the pooled reference area data and concentrations of copper in the flesh and nickel in the bone lower.

A few more differences in parameter concentrations between reference and exposure area were noted in the bottom feeding species assessed. Tables 3.3-15, 3.3-16, and 3.3-17 summarizes the lake whitefish, longnose sucker, and white sucker statistical comparisons, respectively. Lake whitefish data were available for each sampling area. In the Cochrane River, four parameters differed statistically in bone and/or flesh as compared to the reference areas, including higher concentrations of mercury in the bone and flesh tissue, higher concentrations of cobalt in the flesh tissue, and lower concentrations of radium-226 in flesh and copper in bone. Lake whitefish from the Fond du Lac River contained more cadmium, mercury, and selenium in the flesh and aluminum and selenium in the bone. Conversely, statistically lower concentrations of copper and zinc in the flesh and lead in the bone were observed in the Fond du Lac River lake whitefish as compared to

the reference fish. In the Crackingstone Inlet, concentrations of uranium and thorium-230 in the flesh and copper, nickel, uranium, and cobalt in the bone were statistically higher than the reference areas. Finally, in Waterbury Lake selenium concentrations were statistically higher in the lake whitefish flesh and bones, vanadium was statistically higher in the lake whitefish bones, and zinc, arsenic, and cobalt were statistically lower in the lake whitefish bones as compared to reference.

Among the 18 parameters under study, Saskatchewan provincial guidelines exist only for mercury. As discussed in Section 2.0 of this report, while there are no restrictions on fish consumption for fish containing less than 0.5 µg/g of mercury (wet weight), fish consumption should be progressively more limited for fish containing above 0.5 µg/g, above 1.0 µg/g, and above 1.5 µg/g, respectively (SE 2011). Inspection of average flesh mercury concentrations and of each specimen's flesh concentration revealed all specimens captured contained less than the 0.5 µg/g threshold, indicating no consumption restriction applies to fish from these waterbodies (Appendix F, Table 16).

3.4 Discussion and Conclusion

The objective of the EARMP technical sampling program is to assess if environmental effects, including potential cumulative environmental effects, occur in relation to uranium mining and milling operations in northern Saskatchewan. The focus of the technical program is on collecting yearly water, sediment, and fish chemistry data as well as benthic invertebrate community data from exposure locations located downstream of converging watersheds that are exposed the mining and milling operations. By conducting long-term monitoring of biological indicators, such as benthic invertebrate communities and fish, one can get a better understanding of the overall condition and health of the aquatic environment and mitigate potential effects over time. Year 1 of the technical program focused on data collection for establishment of suitable reference areas for comparisons through time, this included spatial comparisons of reference and exposure data as well as comparison to available guidelines to meet this objective. These year 1 data will, in successive years, be the baseline against which comparisons will be made to assess whether potential uranium mining effects are compounded through time (temporally cumulative effects). Therefore, although it was possible to assess whether differences occurred between reference and far-field exposure areas in 2011, temporally cumulative effects will be assessable only from 2012-on.

The assessment of the 2011 chemistry data in each of water, sediment, and fish tissue indicated that most of the parameters assessed were similar between the exposure locations and reference data and/or below available guidelines for the protection of freshwater aquatic life.

A few observations are worth noting. The Fond du Lac River (at the outlet from Wollaston Lake) often contained the greatest number of parameters in each media elevated above pooled reference data. In the sediment, 10 of the parameters assessed were statistically higher than pooled reference data as compared to Waterbury Lake, where only 1 parameter was statistically higher. In addition, five of the parameters that were elevated above reference concentrations in the Fond du Lac River sediment were also elevated in the Cochrane River (at the outlet from Wollaston Lake). Both of these sampling locations were at the outlets to Wollaston Lake, which is located downstream from the Key Lake, McClean Lake, and Rabbit Lake Operations.

For the most part, these parameters remained well below available guidelines for the protection of freshwater aquatic life. However, in the Fond du Lac River, molybdenum concentrations were higher than reference concentrations in the water as well as sediment and were elevated above available sediment quality guidelines (19.2 ± 5.8 µg/g versus LEL of 13.8 µg/g and pooled reference concentrations of 0.8 ± 0.8 µg/g). Molybdenum concentrations from reference areas in Wollaston Lake assessed for other programs have consistently remained below the LEL of 13.8 µg/g (CanNorth 2009; CanNorth 2011b). Molybdenum concentrations were also statistically higher in the longnose and white sucker bone chemistry from the Fond du Lac River (0.25 ± 0.07 µg/g and 0.13 ± 0.06 µg/g, respectively) as compared to pooled reference data (<0.05 µg/g and <0.05 µg/g, respectively).

Although below available guidelines, molybdenum concentrations were higher relative to reference in the water and sediment at the Cochrane River and Waterbury Lake sampling areas. Thus, elevated molybdenum concentrations were generally observed in multiple media types downstream of all of the active uranium mining and milling operations (i.e., not in Lake Athabasca).

The benthic invertebrate community data was collected to provide some context on how the chemical environment may be influencing the biological environment. In the case of the Fond du Lac River, the benthic invertebrate community was the most distinct from

the other sampling areas. Mean benthic invertebrate density, biomass, and taxon richness was statistically lower as compared to the pooled reference data. Furthermore, the community composition was the most different from its corresponding reference (Cree Lake). However, multivariate community comparisons identified statistical differences between each waterbody assessed, with no clear pattern relating to reference and exposure community differences. Among the numerous taxa differences that occurred, the only recurring pattern was that *Diporeia hoyi* (a crustacean scud) was usually more abundant in the exposures than in the references, except in Waterbury Lake. No other taxon was consistently (or more or less consistently) associated to exposures or to references. It is also worth noting that Sphaeriidae (clams) and *Hyalella azteca* (crustacean amphipods), two groups often believed to be sensitive to metal mining effects, occurred in the exposure areas at similar numbers to the reference areas.

Some of the differences observed between parameter concentrations and benthic invertebrate community differences in exposures as compared to the references may follow from the unusually low parameter concentrations in the Cree Lake sediment associated with the high sand content. Particle size differences were quite apparent for the Cree Lake sampling area in particular. Relocating the Cree Lake sampling area to a less sandy area in the lake would likely produce more representative results for reference sediment chemistry concentrations as well as provide more similar habitat comparisons for the benthic invertebrate community comparisons.

4.0 CONCLUSION AND RECOMMENDATIONS

The Eastern Athabasca Regional Monitoring Program successfully collected year 1 data for both the community and technical programs. A fundamental objective of this program was to provide public access to all information collected. As such, not only have all raw data been provided in this report but they are available for download at: www.earmp.ca.

Based on the assessment completed on the 2011 data, the community program established that parameters of potential concern in country foods were generally low, within available regional reference values, and/or comparable to supermarket foods. The technical sampling program also established that most parameters of potential concern within the water, sediment, and fish tissue assessed were low, comparable to reference, and/or below available guidelines for the protection of freshwater aquatic life. However, some differences were noted, particularly with respect to molybdenum levels at the Fond du Lac River outlet from Wollaston Lake. Additional sampling during future monitoring years will allow for the verification of this pattern, and comparisons of future data will allow to assess whether cumulative effects occur in the different study areas.

A few improvements to the monitoring program should be considered for future monitoring years. These include:

- Requesting better method detection limits from the laboratory for cadmium in water samples. The current method detection limit is higher than the guidelines for the protection of freshwater aquatic life, achieving a lower guideline will allow for the confirmation that cadmium concentrations are within expected concentrations at the exposure sampling areas.
- Requesting better method detection limits from the laboratory for selenium and uranium in berries and molybdenum and uranium in fish tissue. For example, the uranium detection limit in the berry samples was a magnitude higher than the average concentrations measured in supermarket berries. Achieving a better detection limit will allow for the confirmation that parameter near each community are similar to those found in supermarket foods.
- Relocating the Cree Lake reference sampling area to an area within the lake that contains more fine particles. Particle size differences, particularly with respect to Cree Lake, are a confounding factor in terms of assessing whether parameters are elevated or benthic invertebrate communities differ as a result of upstream mining

influences or habitat differences. Standardizing particle size more effectively will mitigate for habitat differences.

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FIGURES

LIST OF FIGURES

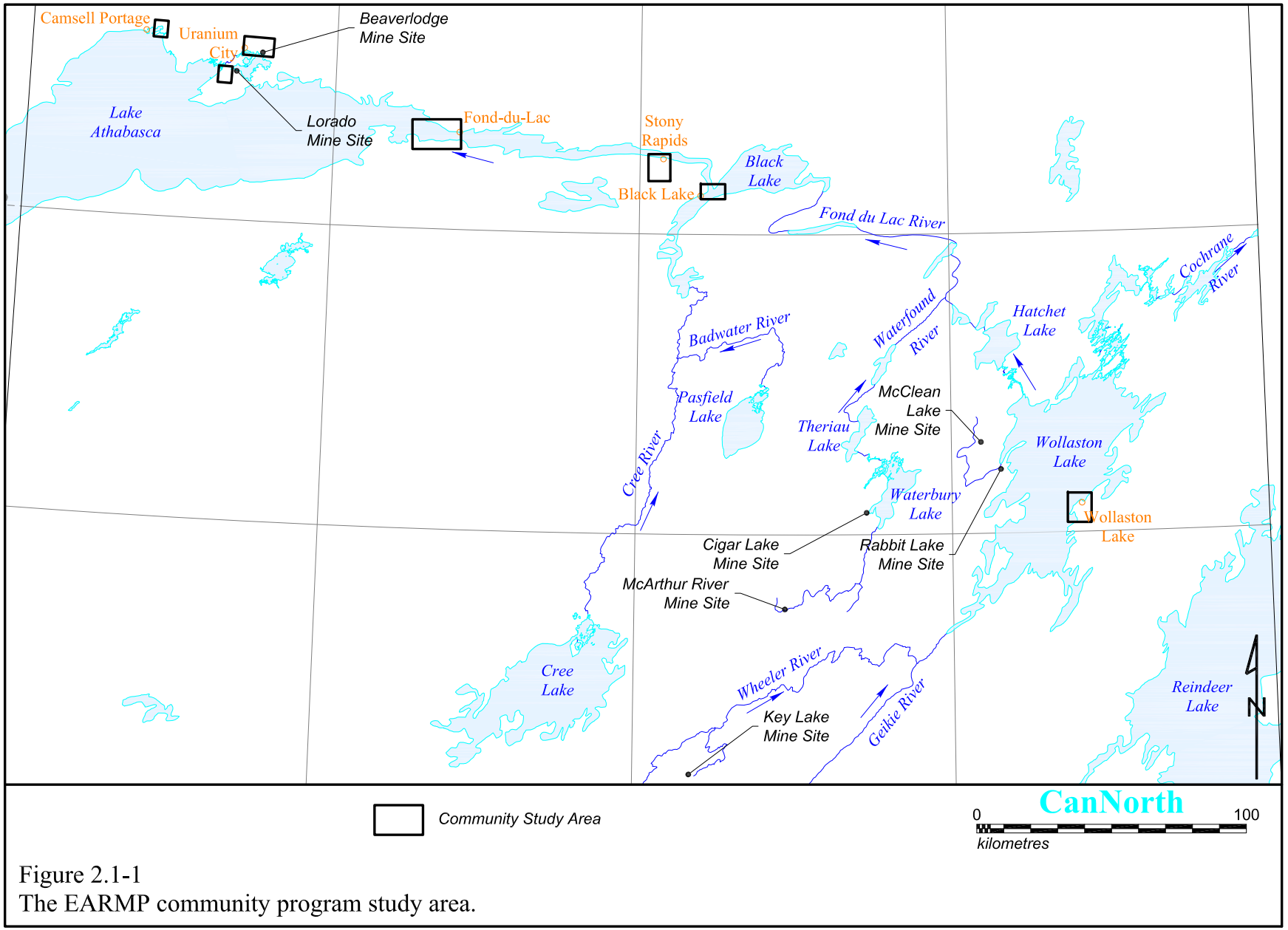

Figure 2.1-1
The EARMP community program study area.

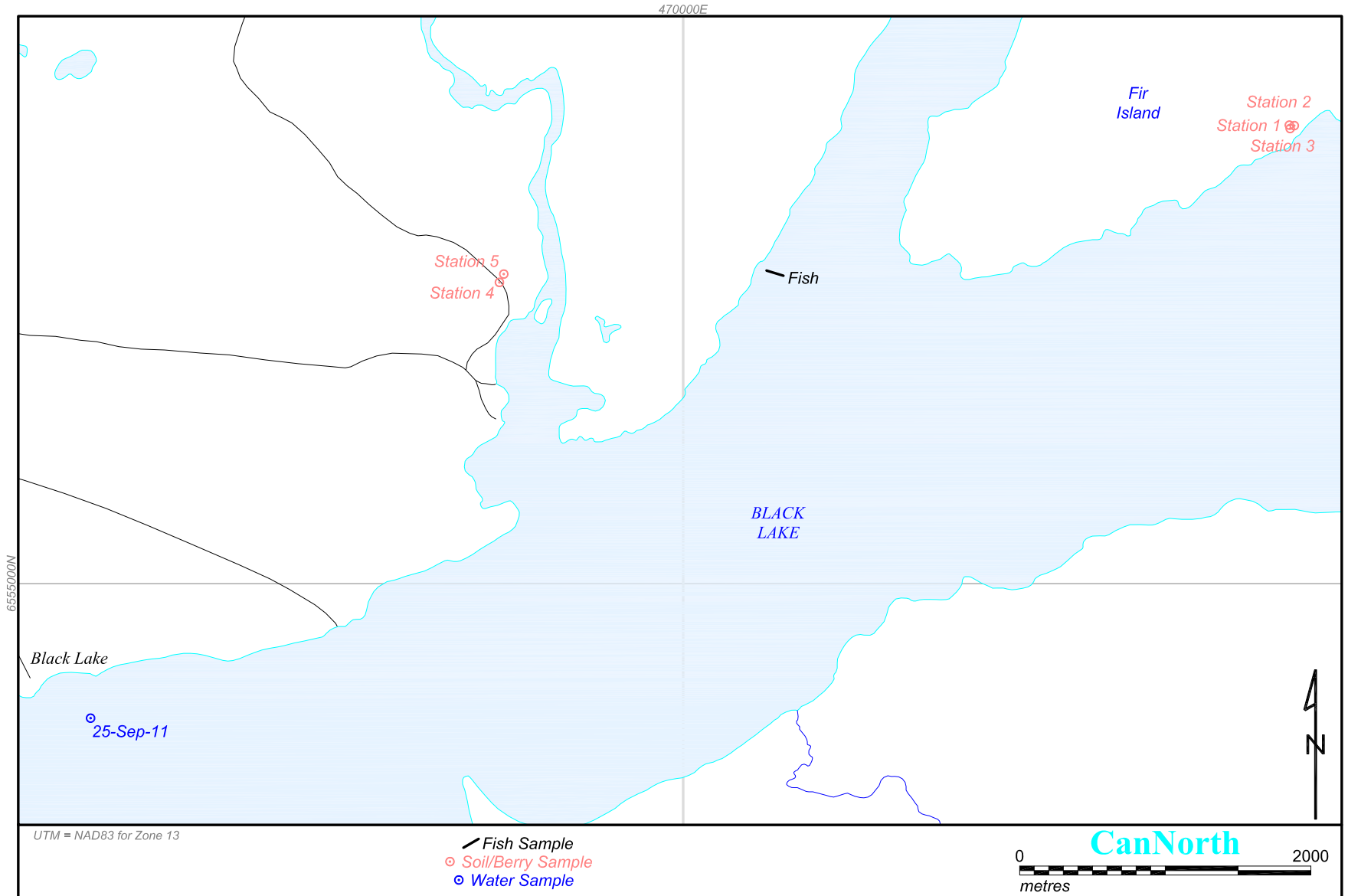

Figure 2.2-1
Locations of sampling stations in the Black Lake study area, September 2011.

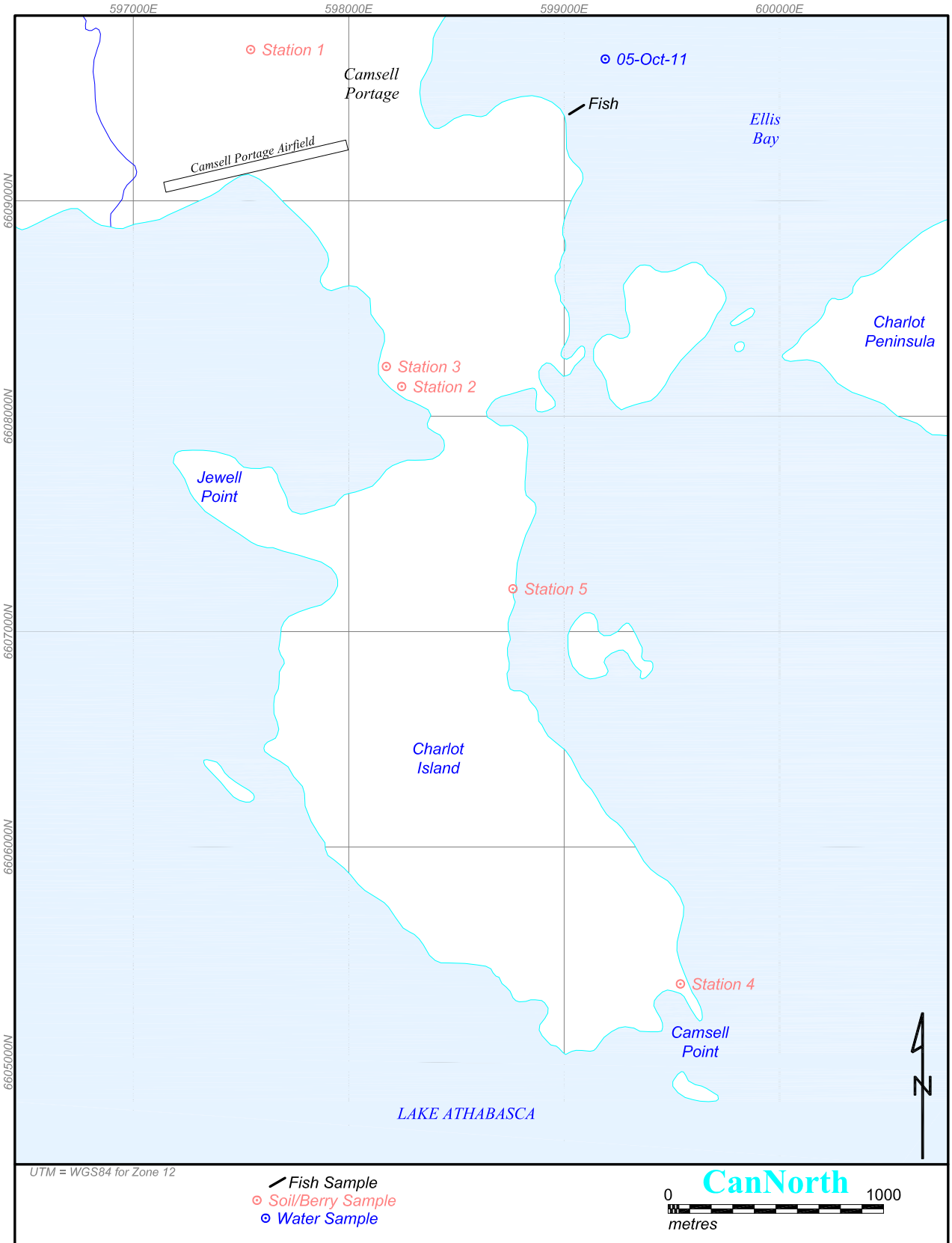

Figure 2.2-2
Locations of sampling stations in the Camsell Portage sampling area, October 2011.

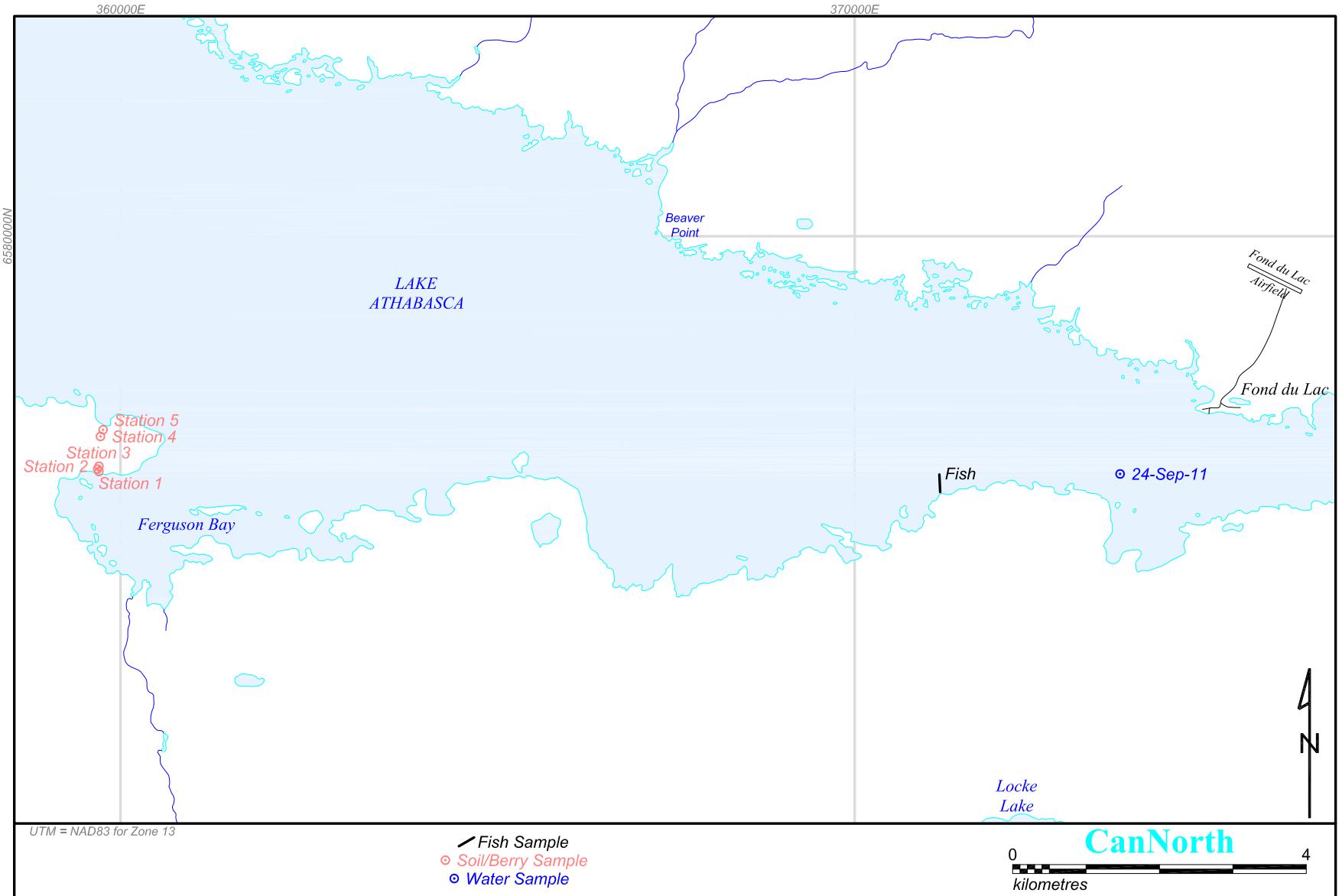

Figure 2.2-3
Locations of sampling stations in the Fond du Lac sampling area, September 2011.

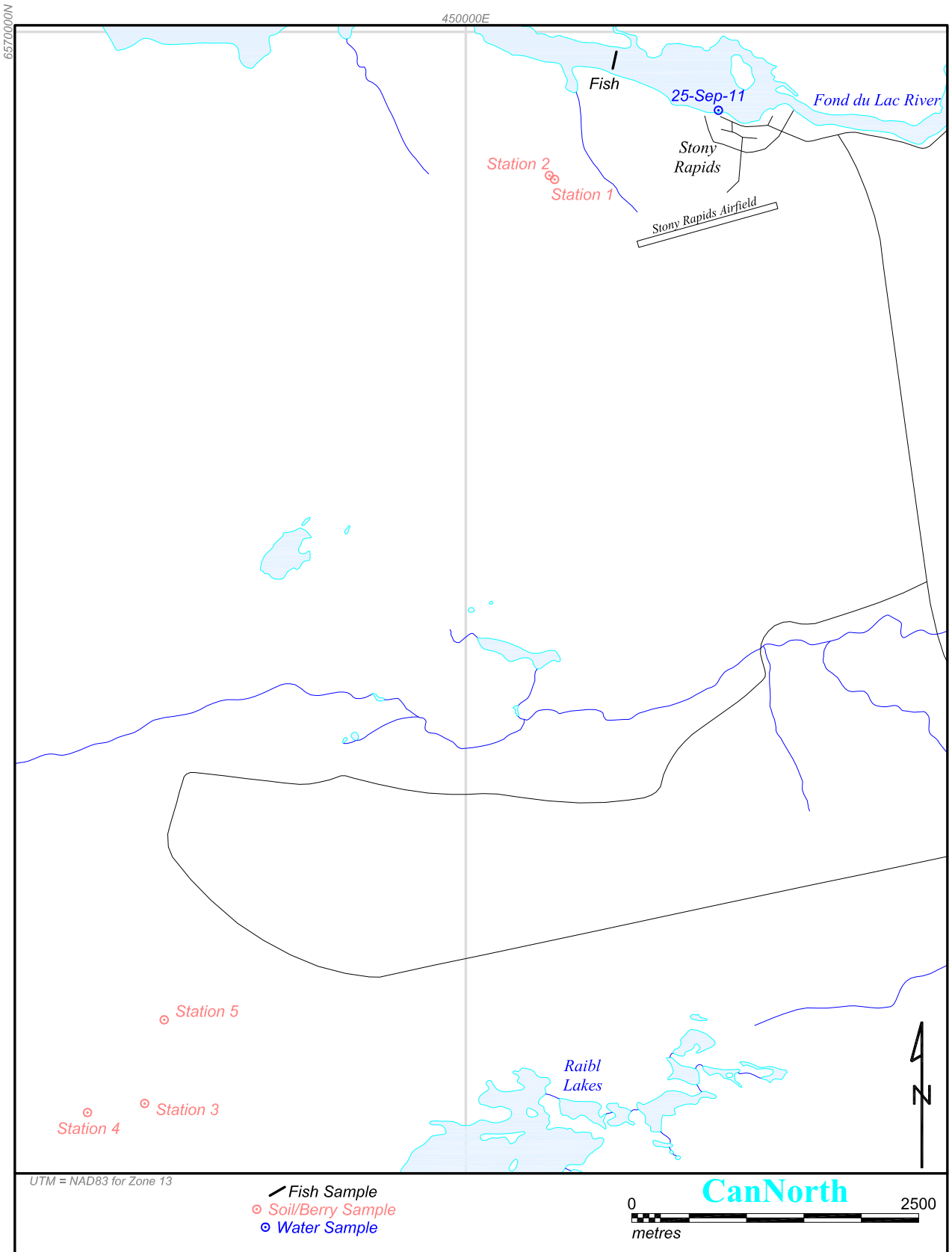

Figure 2.2-4
Locations of sampling stations in the Stony Rapids sampling area, September 2011.

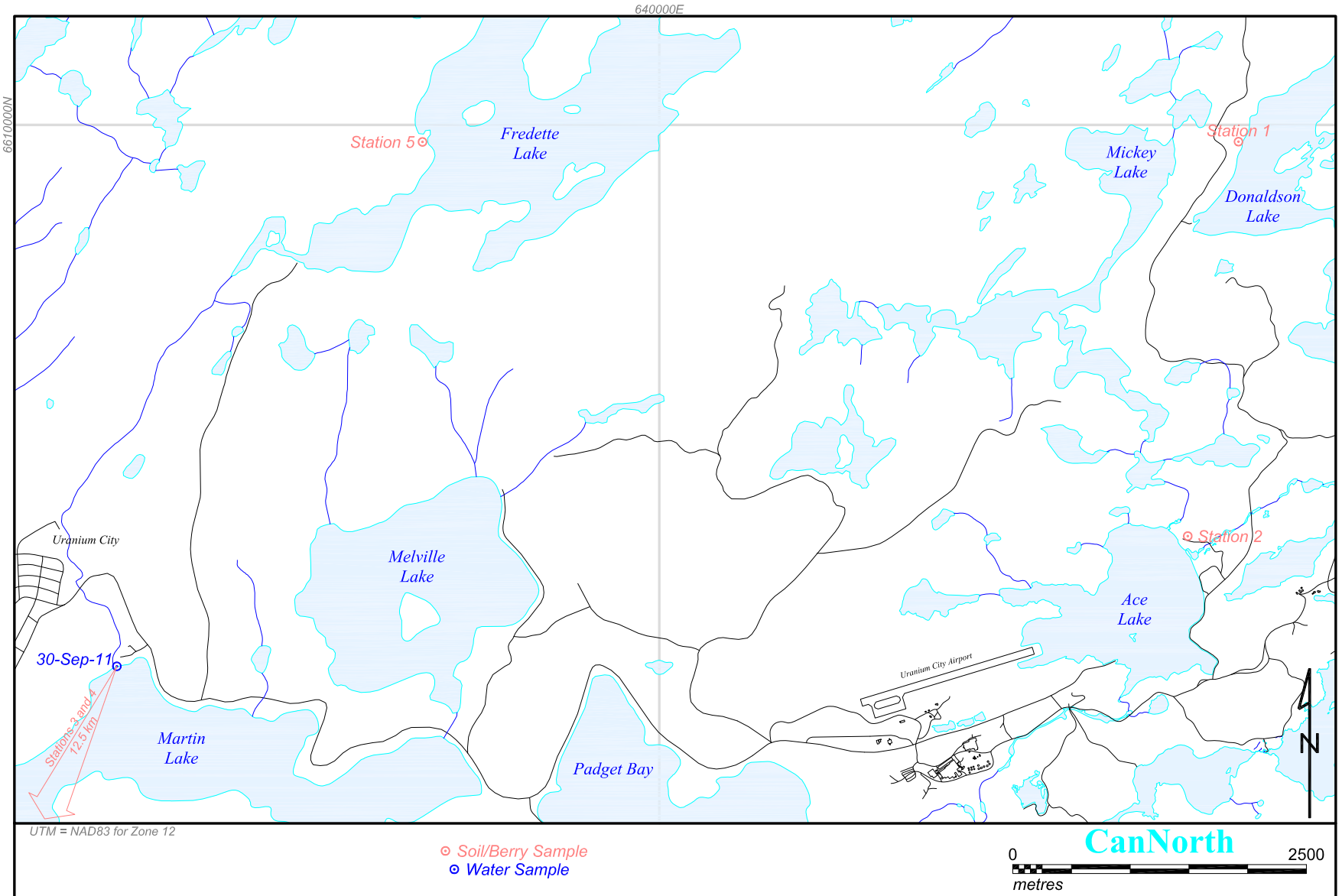

Figure 2.2-5a
Locations of sampling stations in the Uranium City sampling area, September/October 2011.

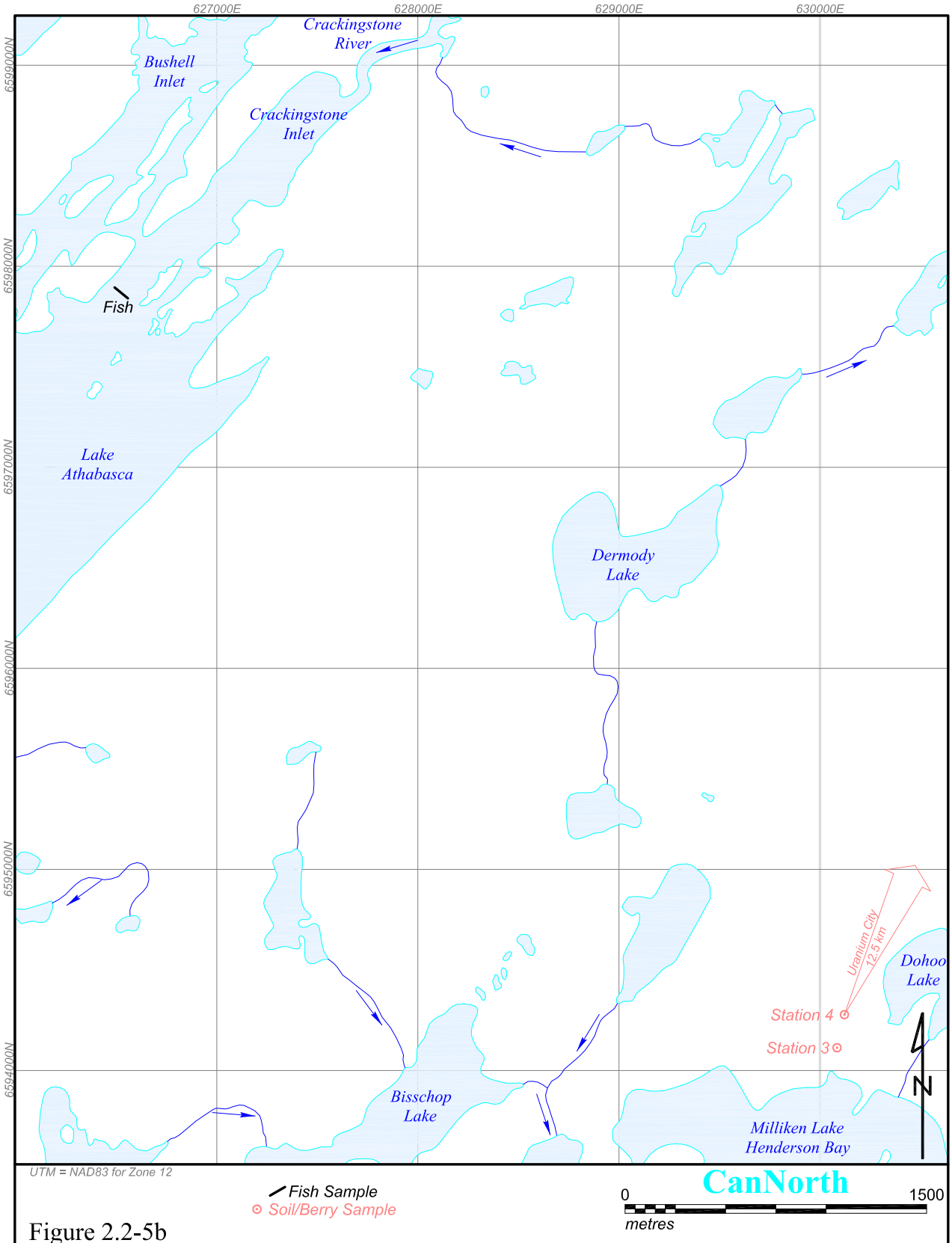

Figure 2.2-5b
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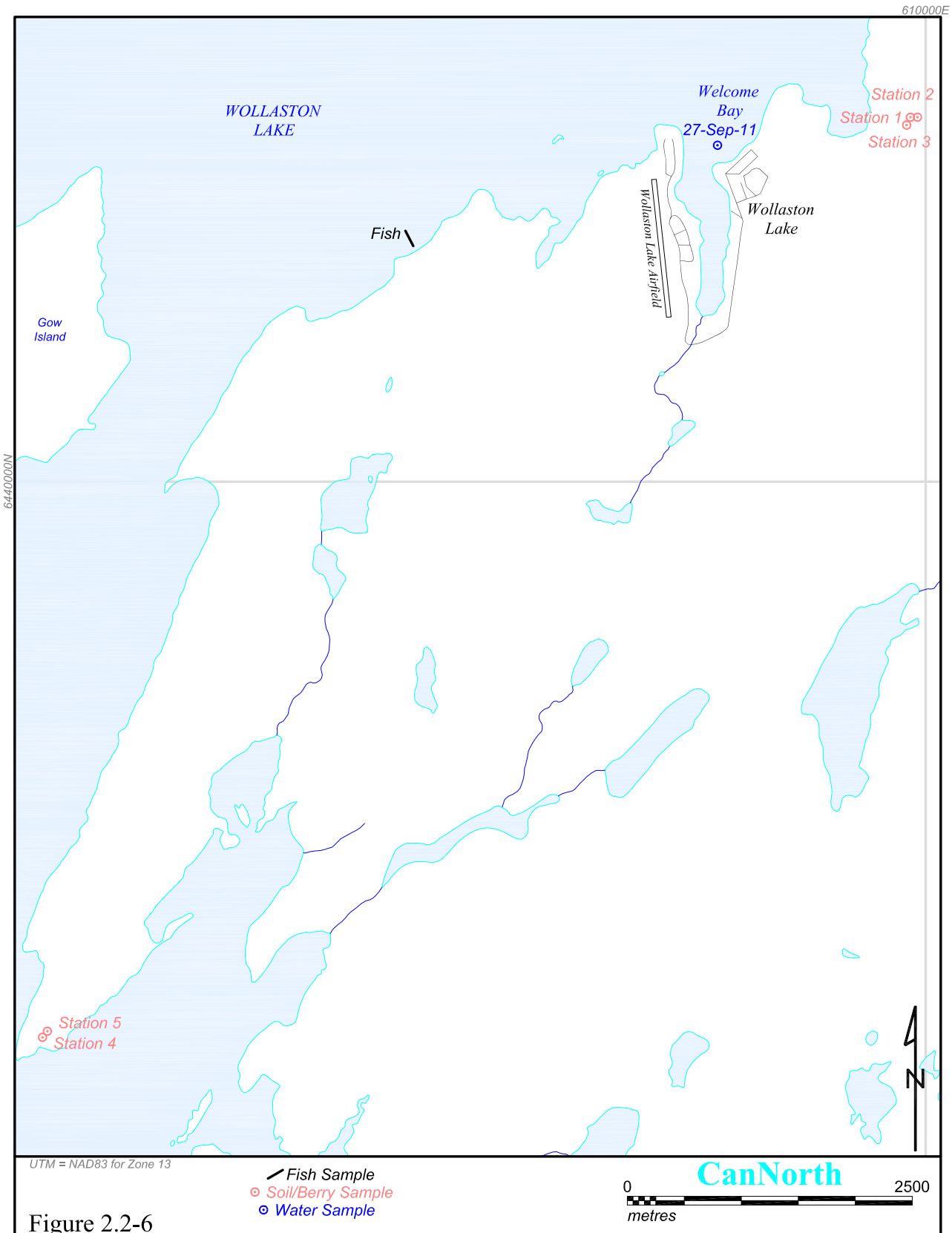


Figure 2.2-6
Locations of sampling stations in the Wollaston Lake/Hatchet Lake sampling area, September 2011.

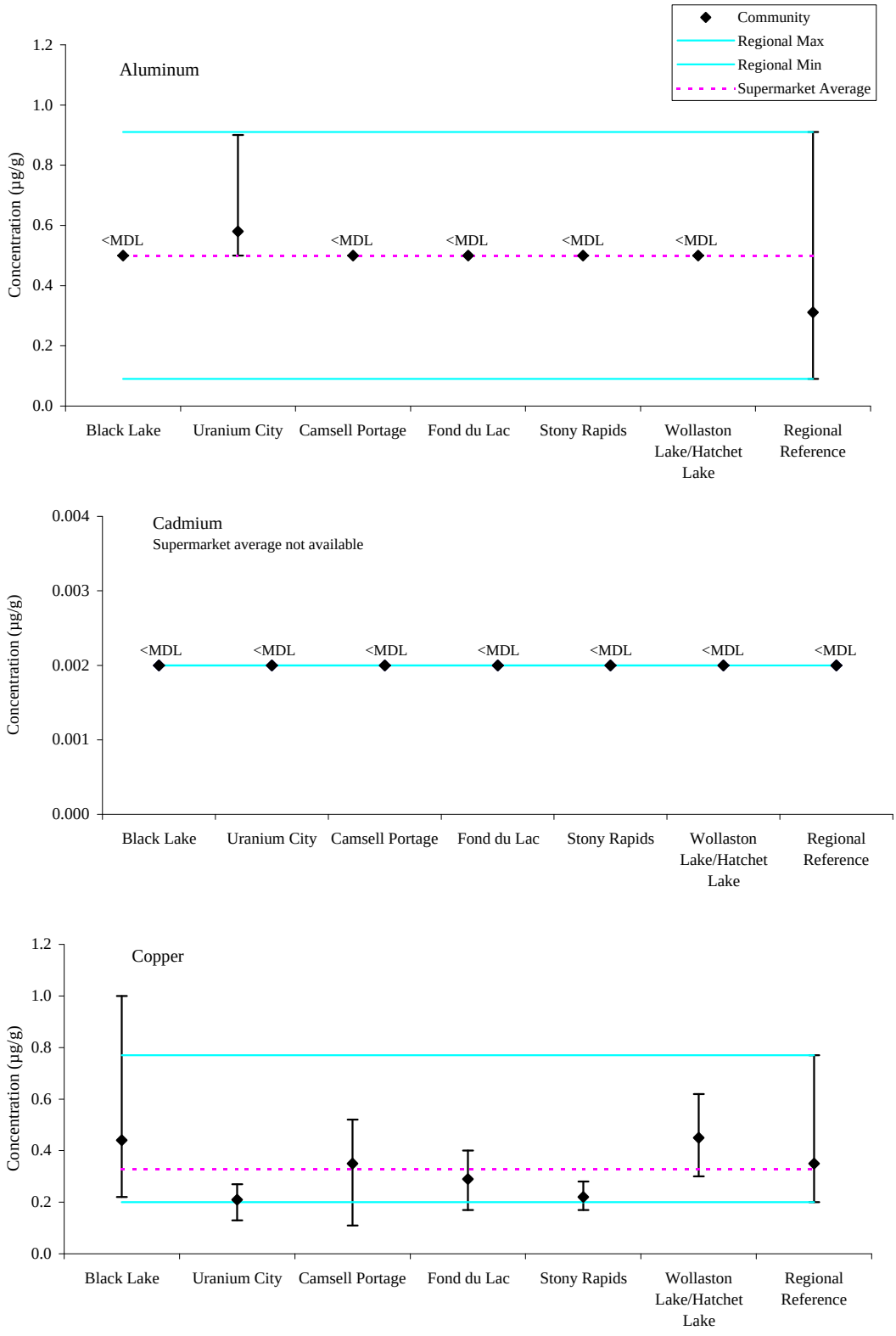
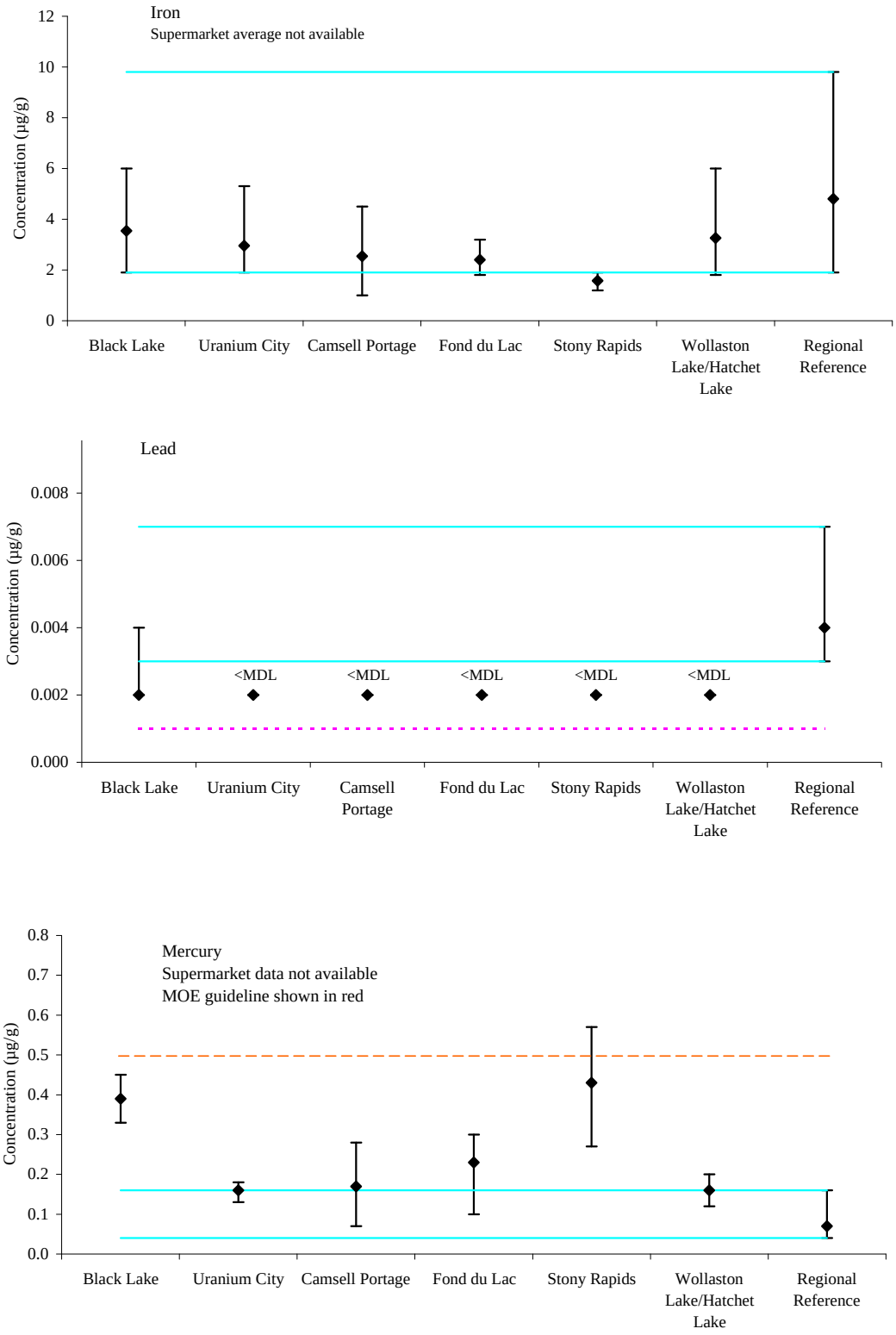


Figure 2.3-1

Comparison of lake trout POPCs to regional reference values (2010) and average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.



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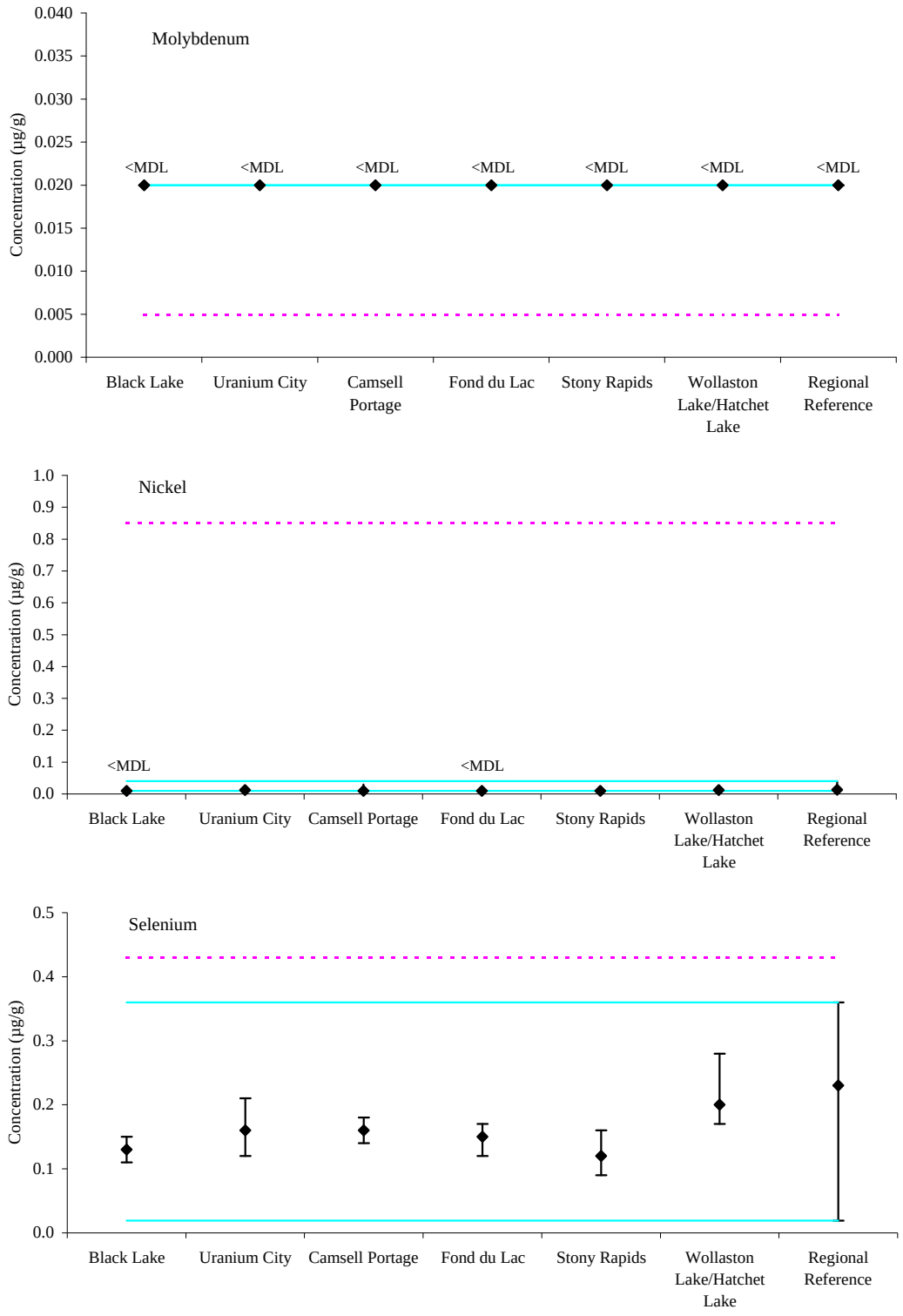

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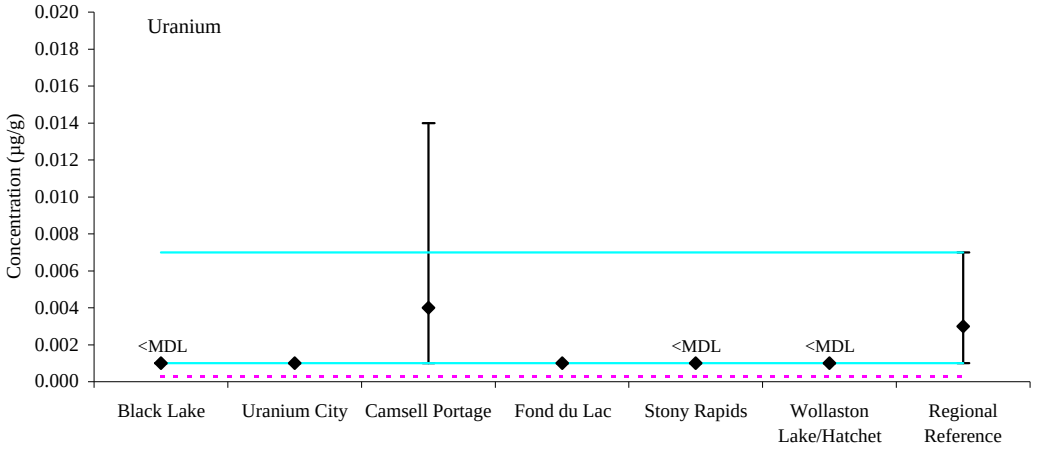

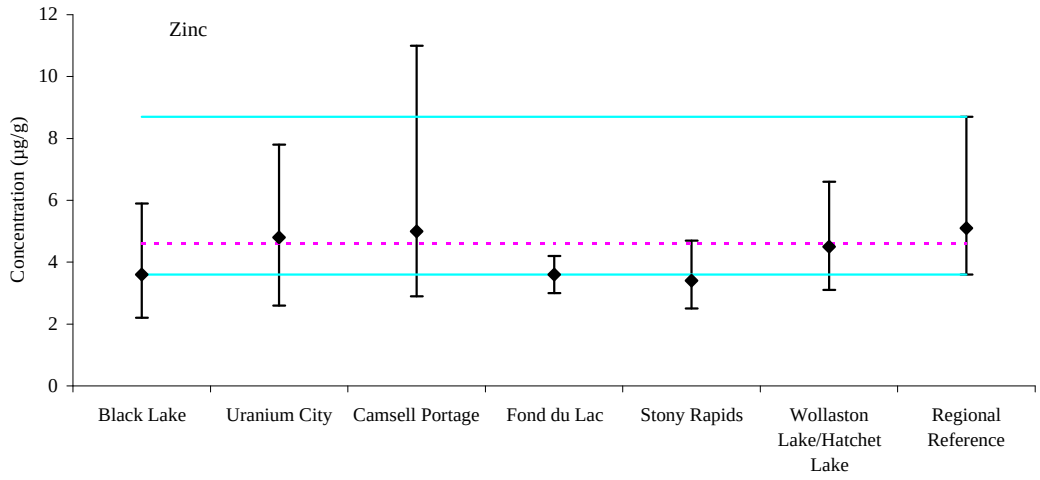

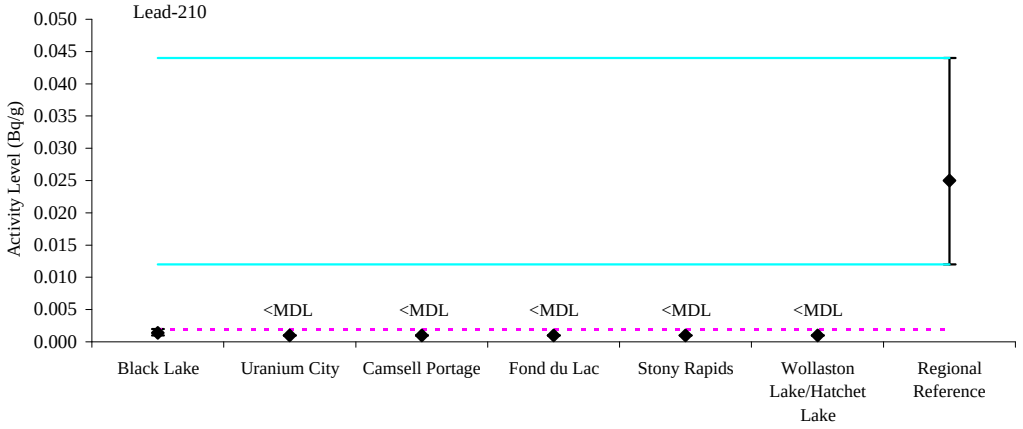

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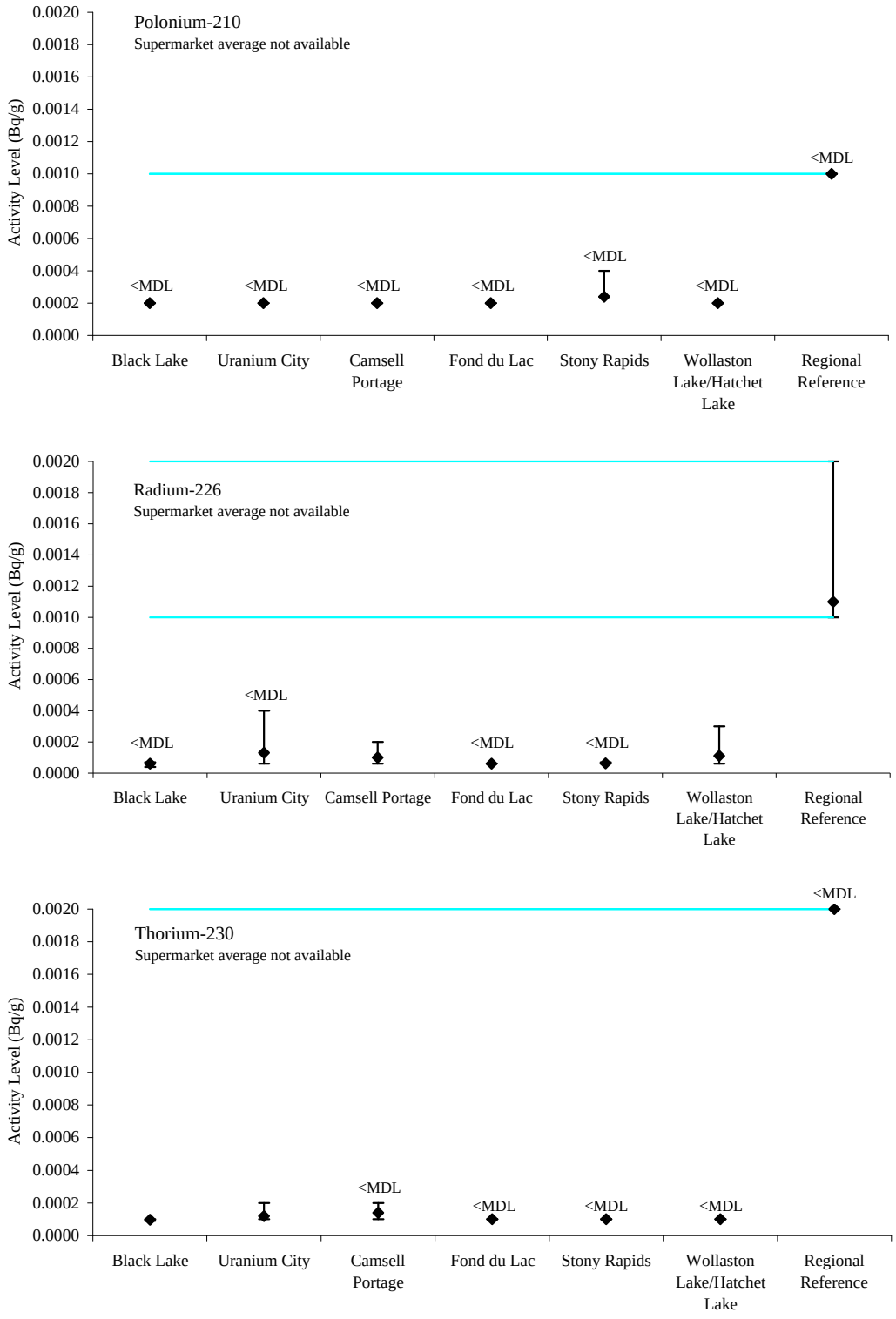

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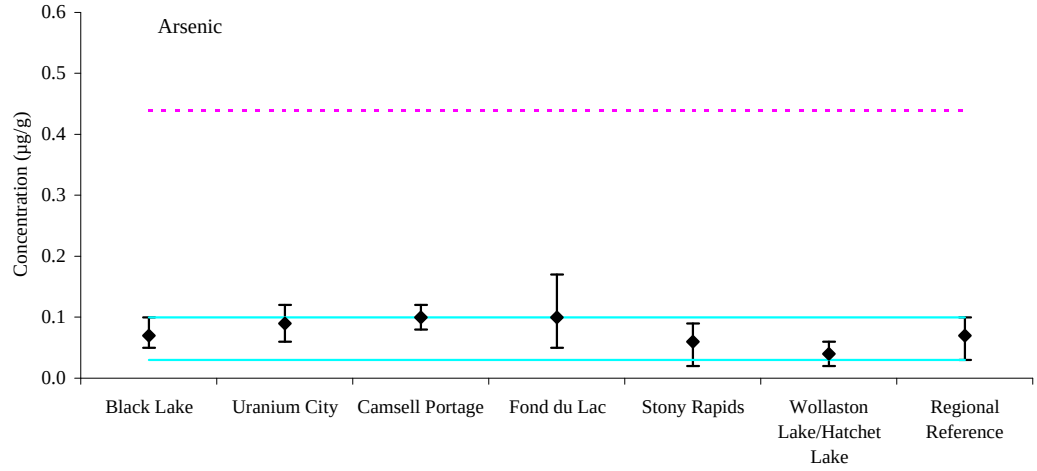

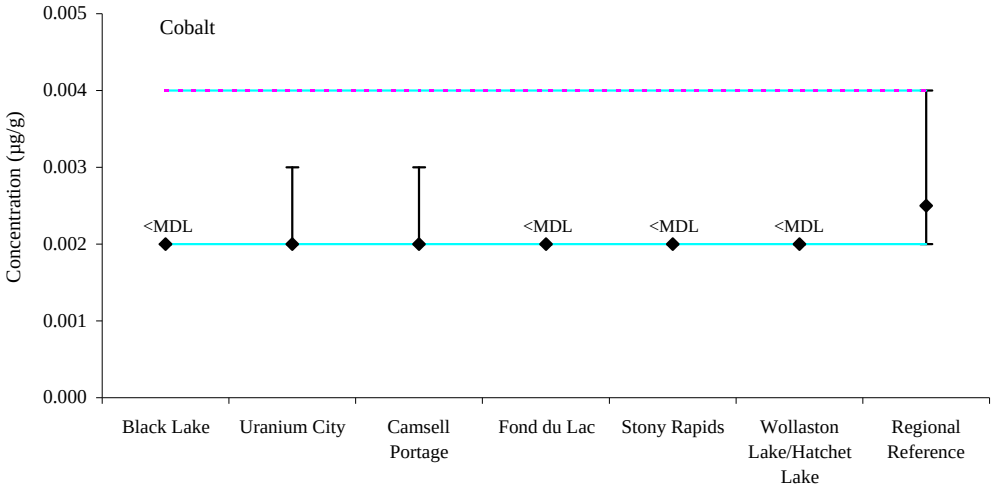

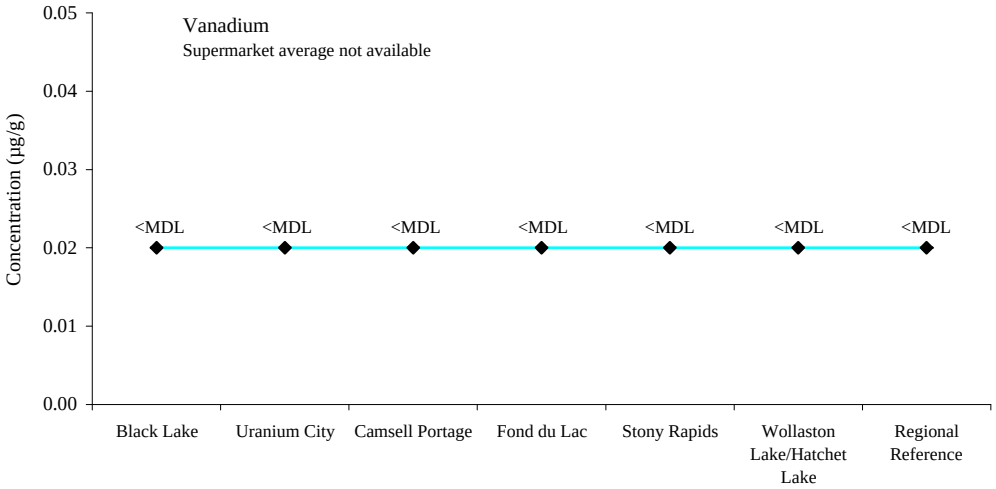

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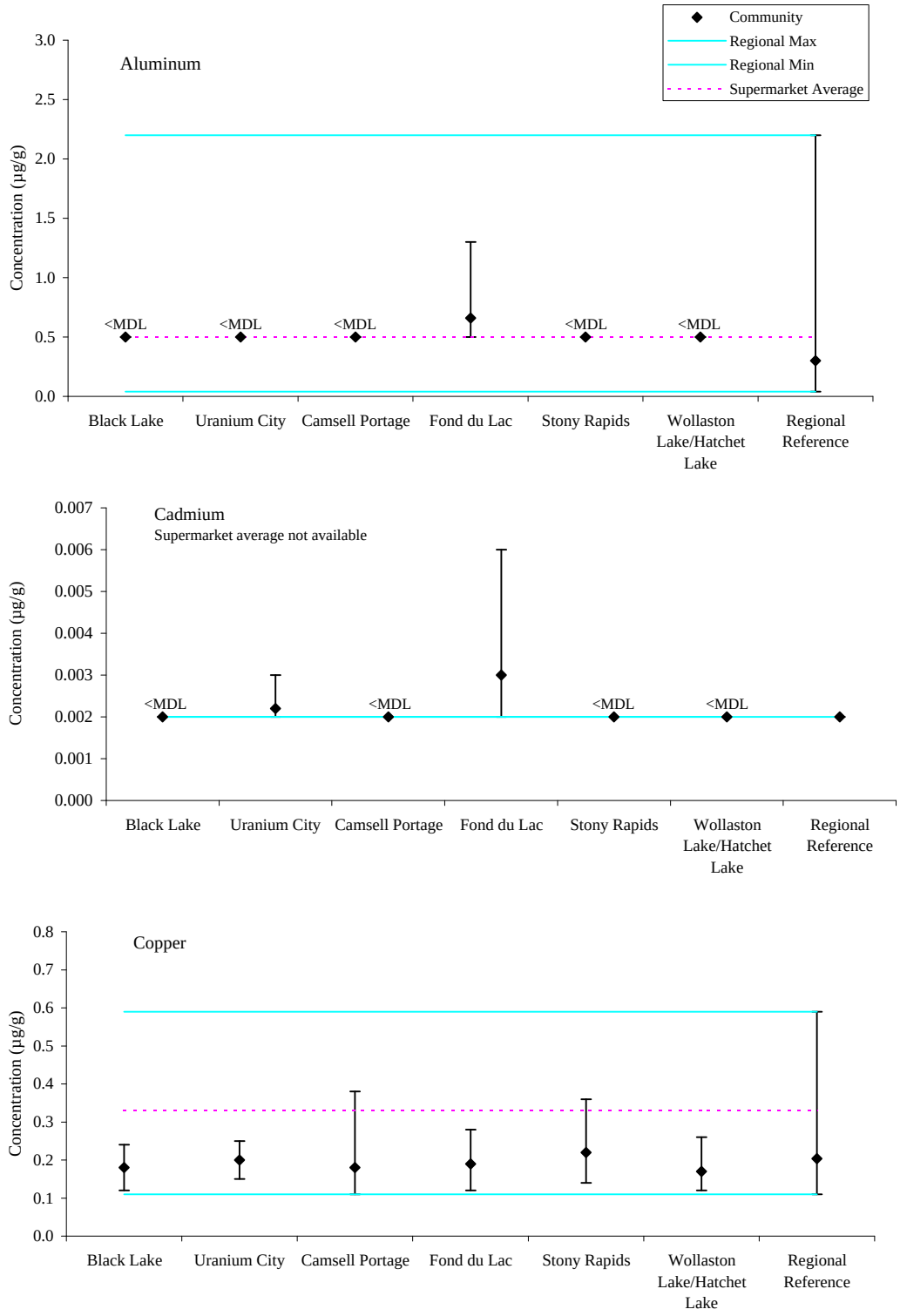
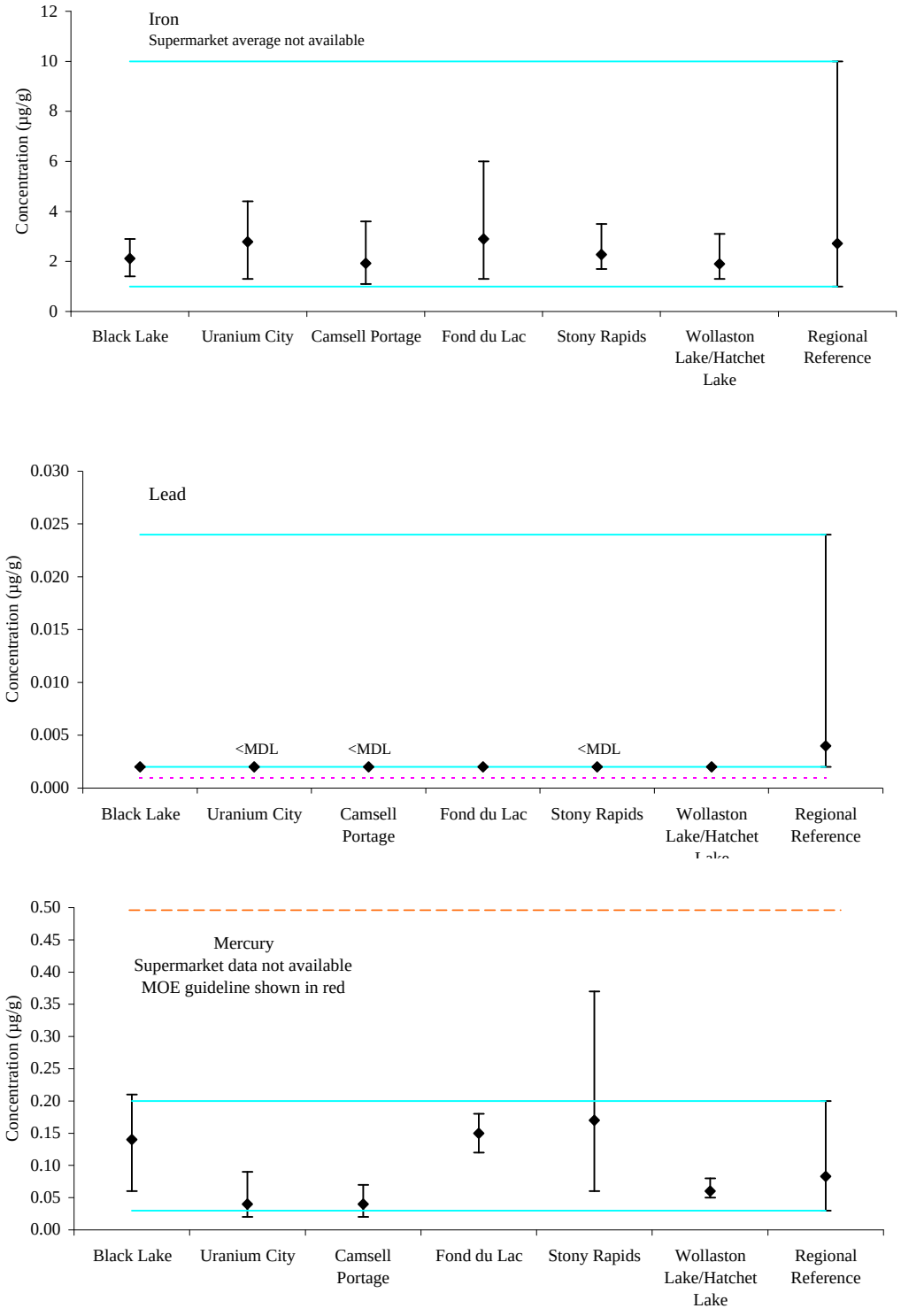


Figure 2.3-2
Comparison of lake whitefish POPCs to regional reference values (2006-2012) and average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.



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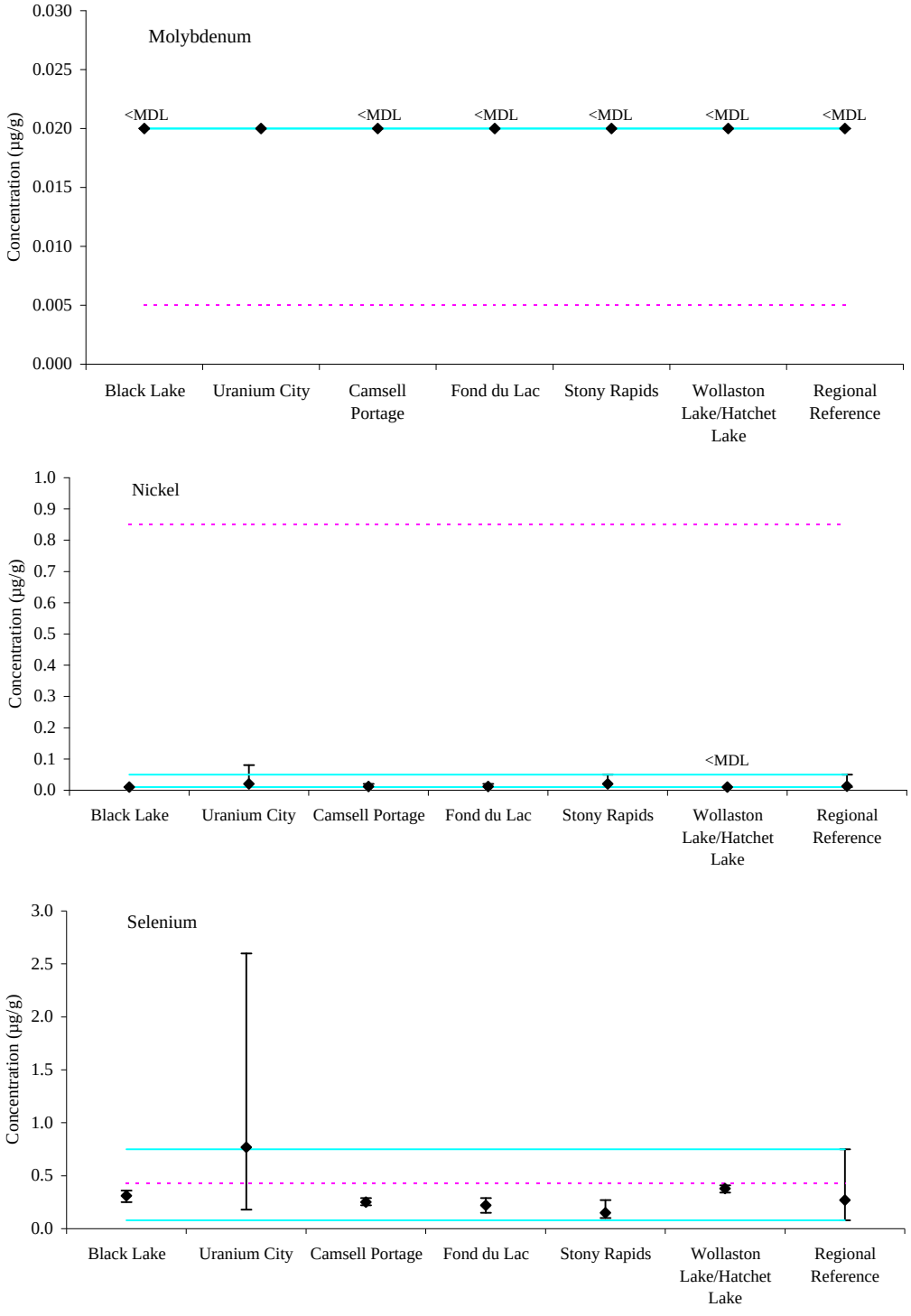

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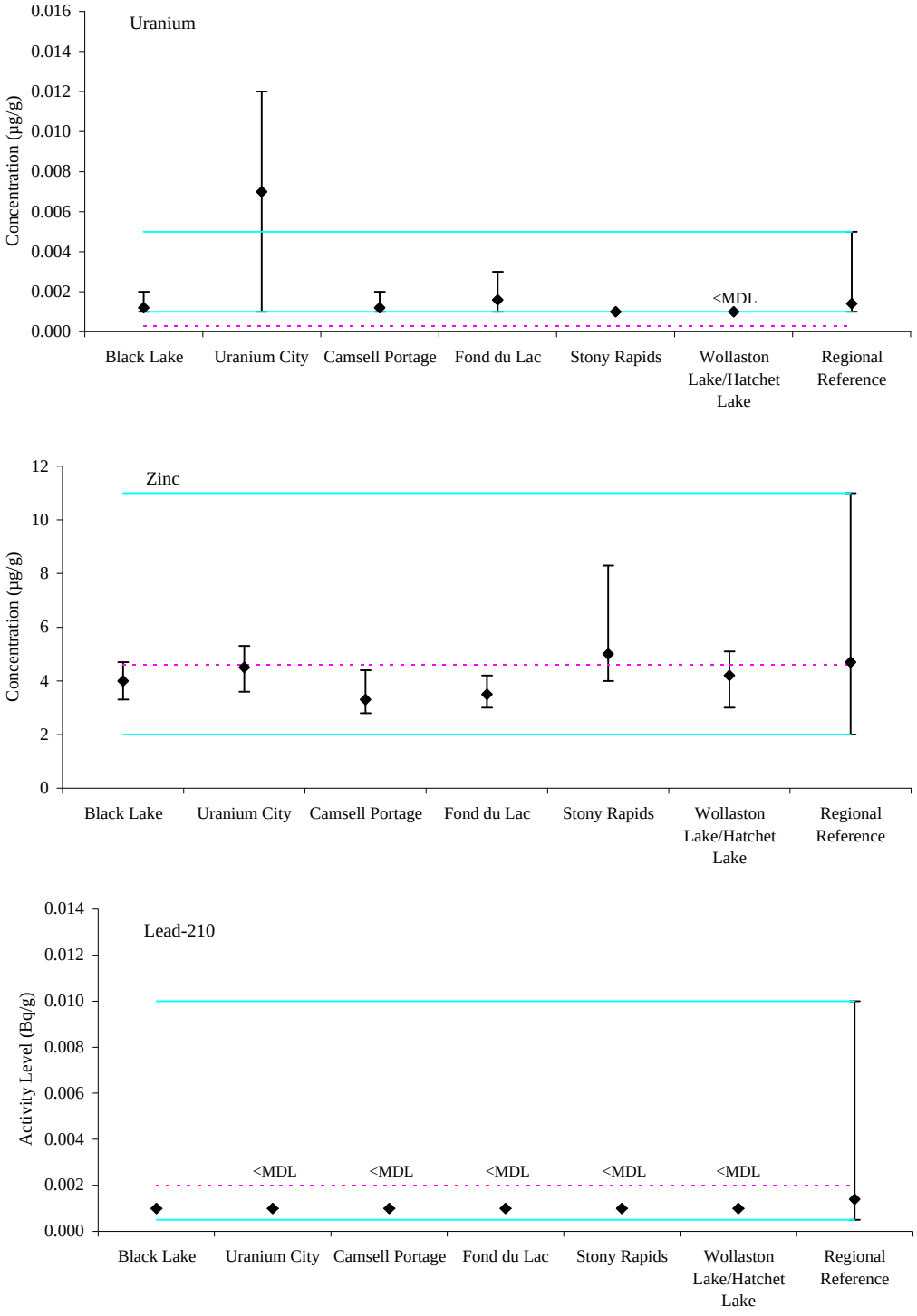
Comparison of lake whitefish POPCs to regional reference values (2006-2012) and average supermarket values.
Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.



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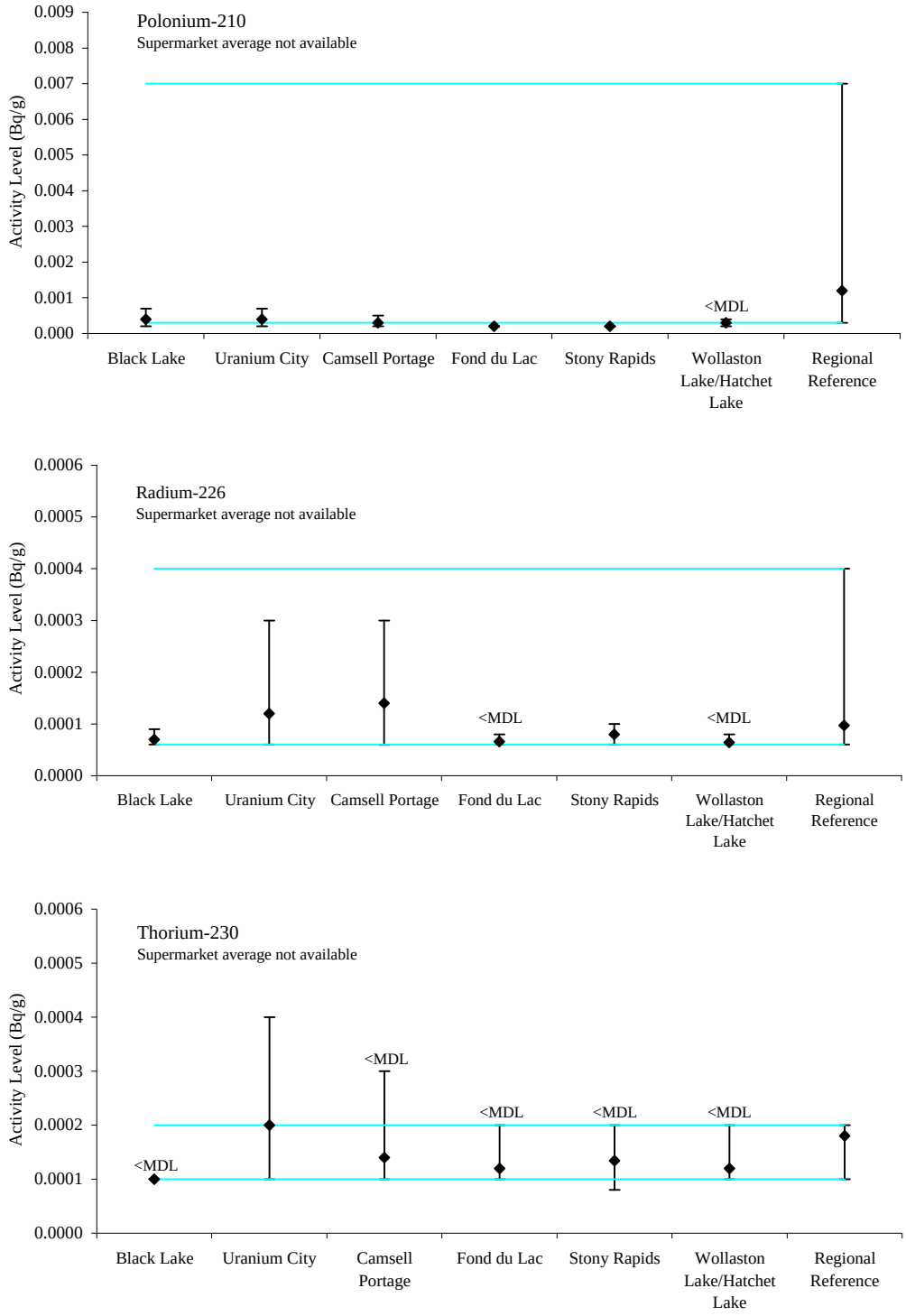
Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.



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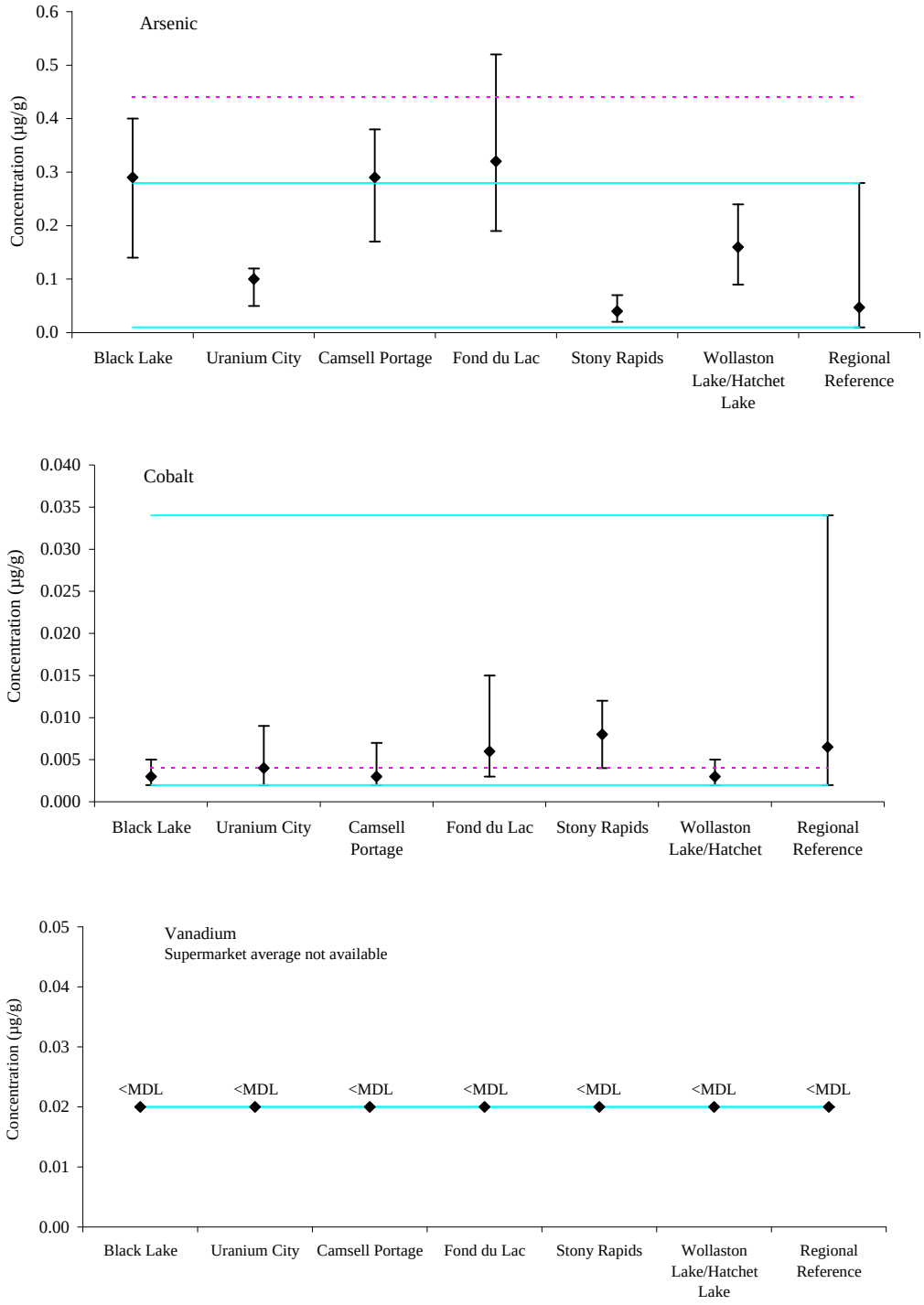
Comparison of lake whitefish POPCs to regional reference values (2006-2012) and average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.



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Comparison of lake whitefish POPCs to regional reference values (2006-2012) and average

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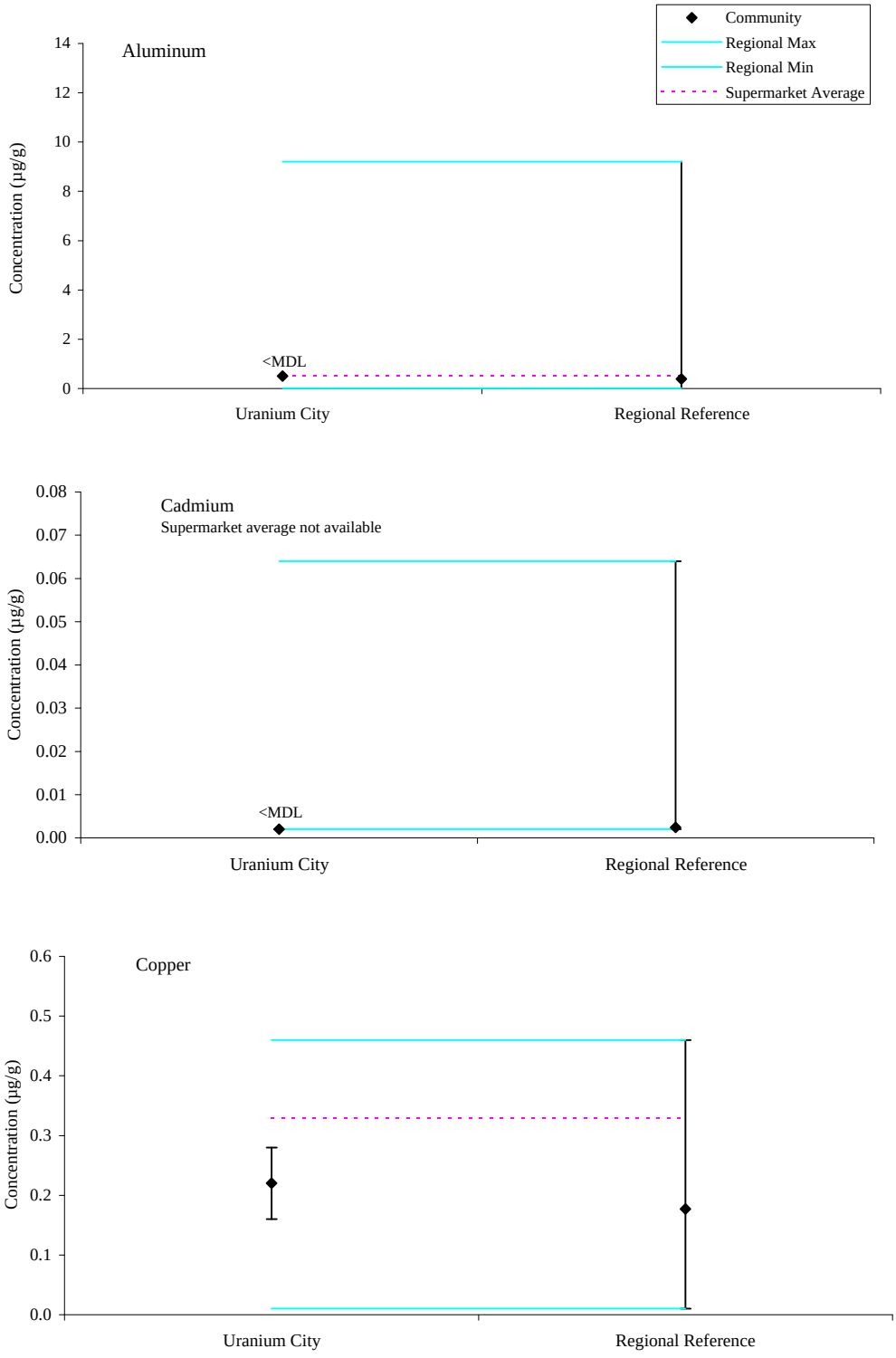

Figure 2.3-3
Comparison of northern pike POPCs to regional reference values (2006-2011) and average supermarket values.

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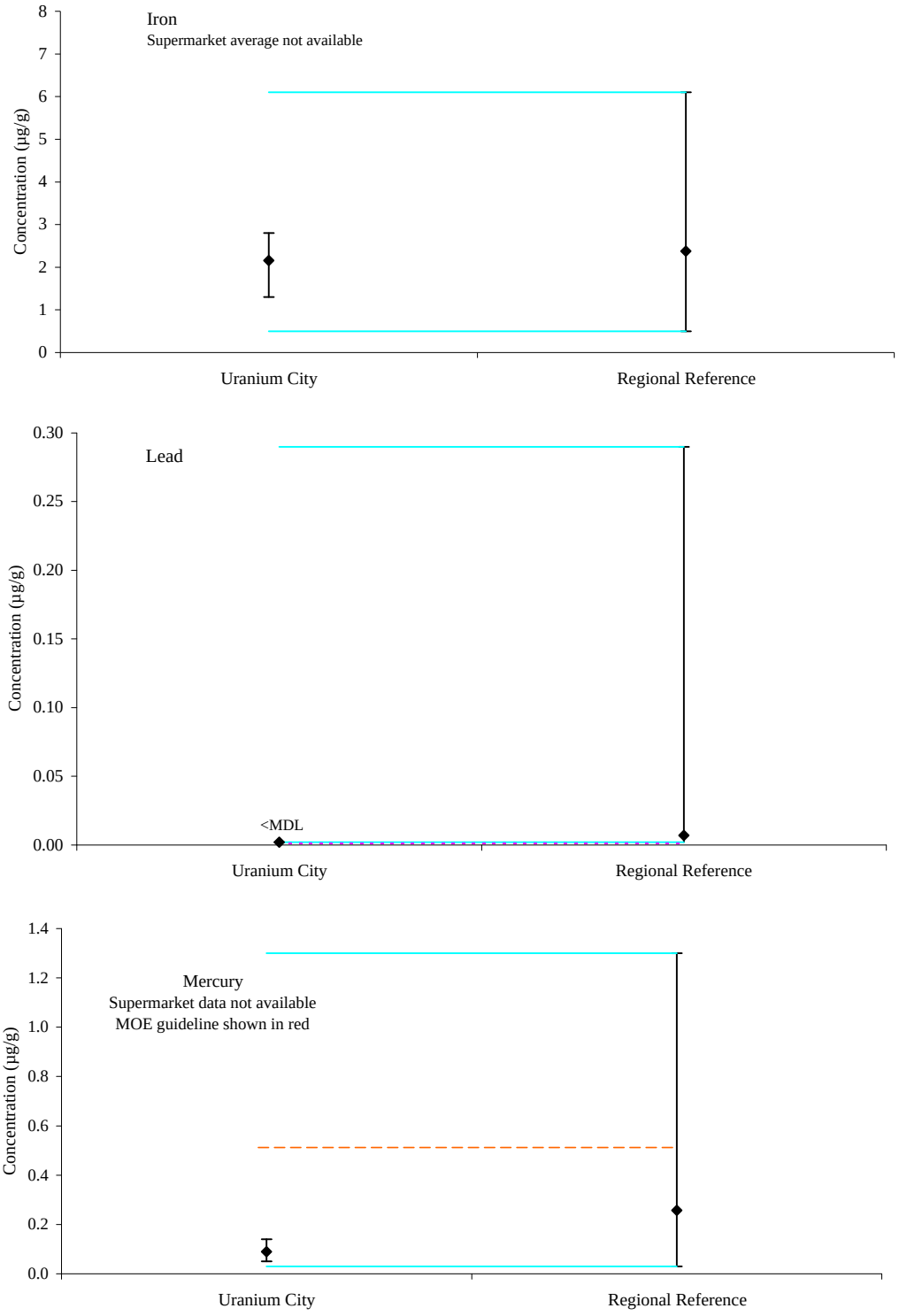

Figure 2.3-3
Comparison of northern pike POPCs to regional reference values (2006-2011) and average supermarket values.

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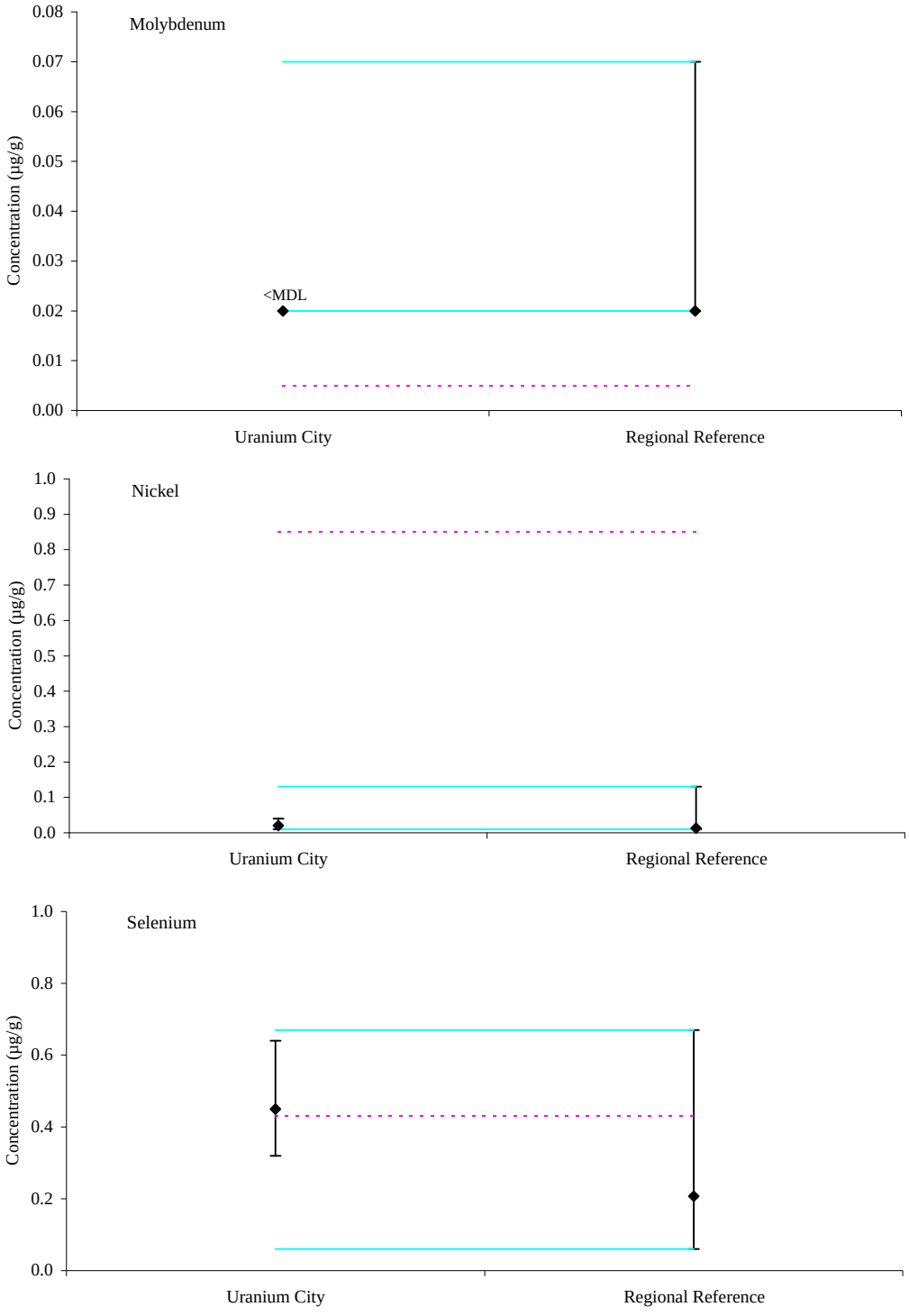

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Comparison of northern pike POPCs to regional reference values (2006-2011) and average supermarket values.
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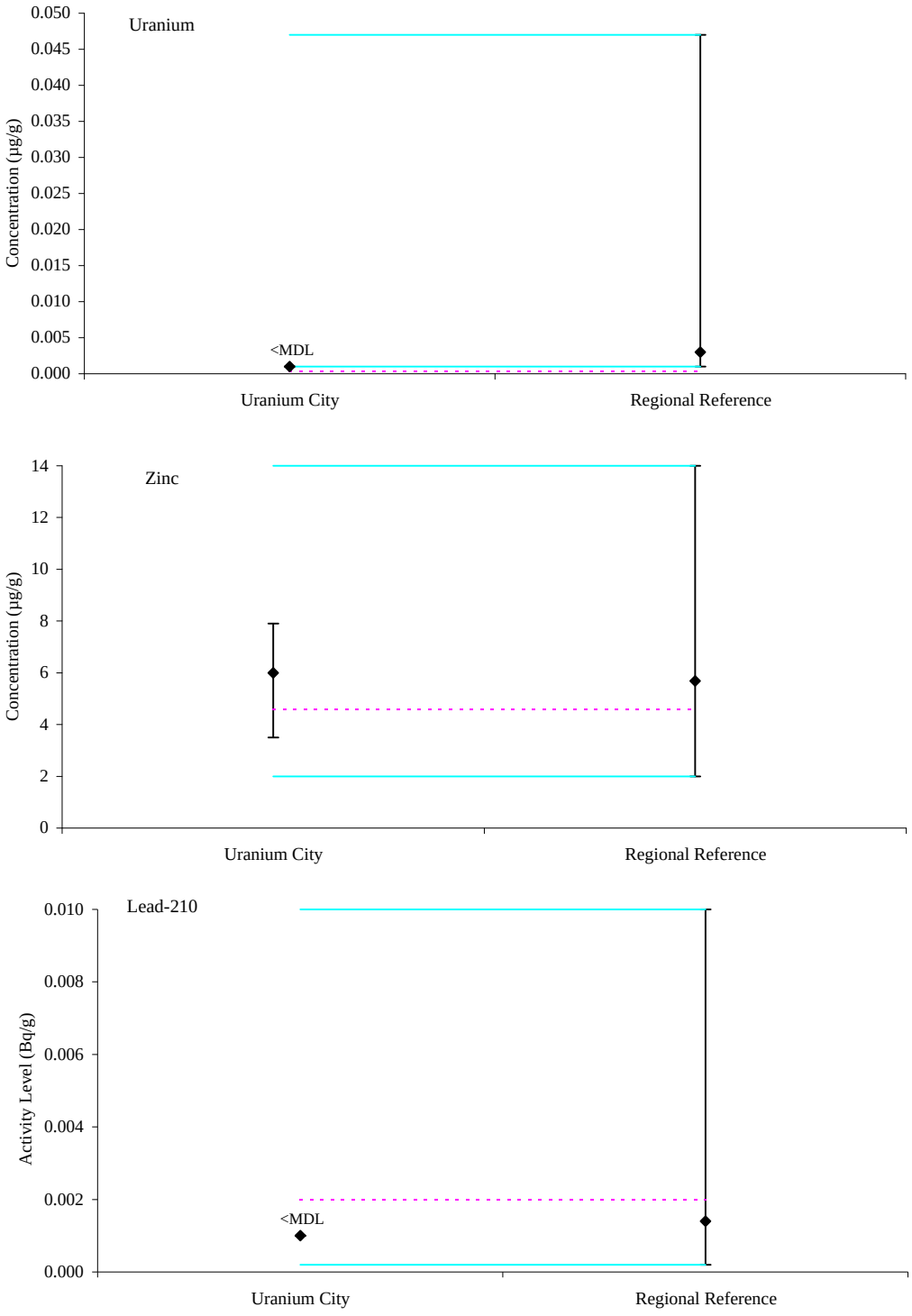

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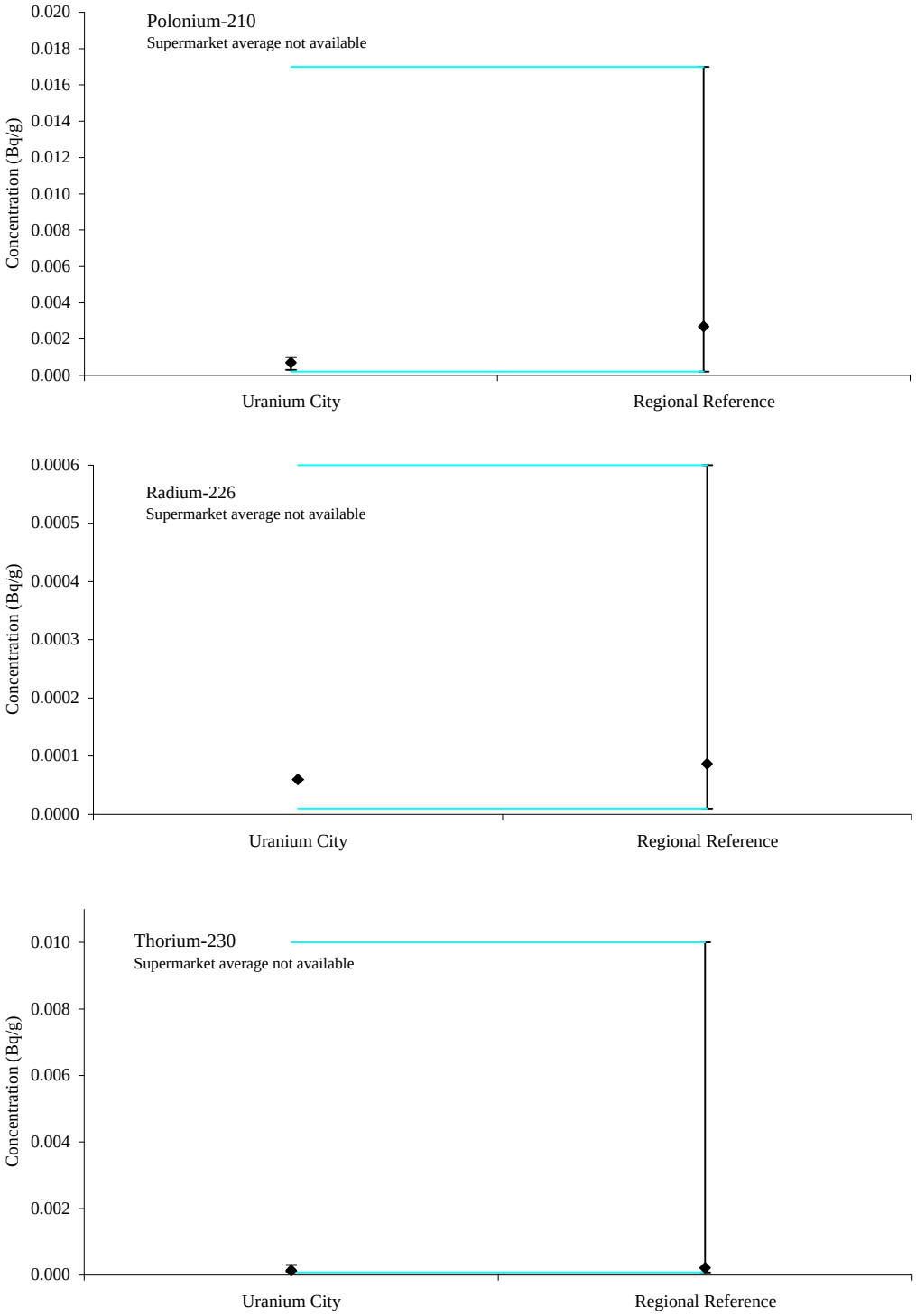

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Comparison of northern pike POPCs to regional reference values (2006-2011) and average supermarket values.

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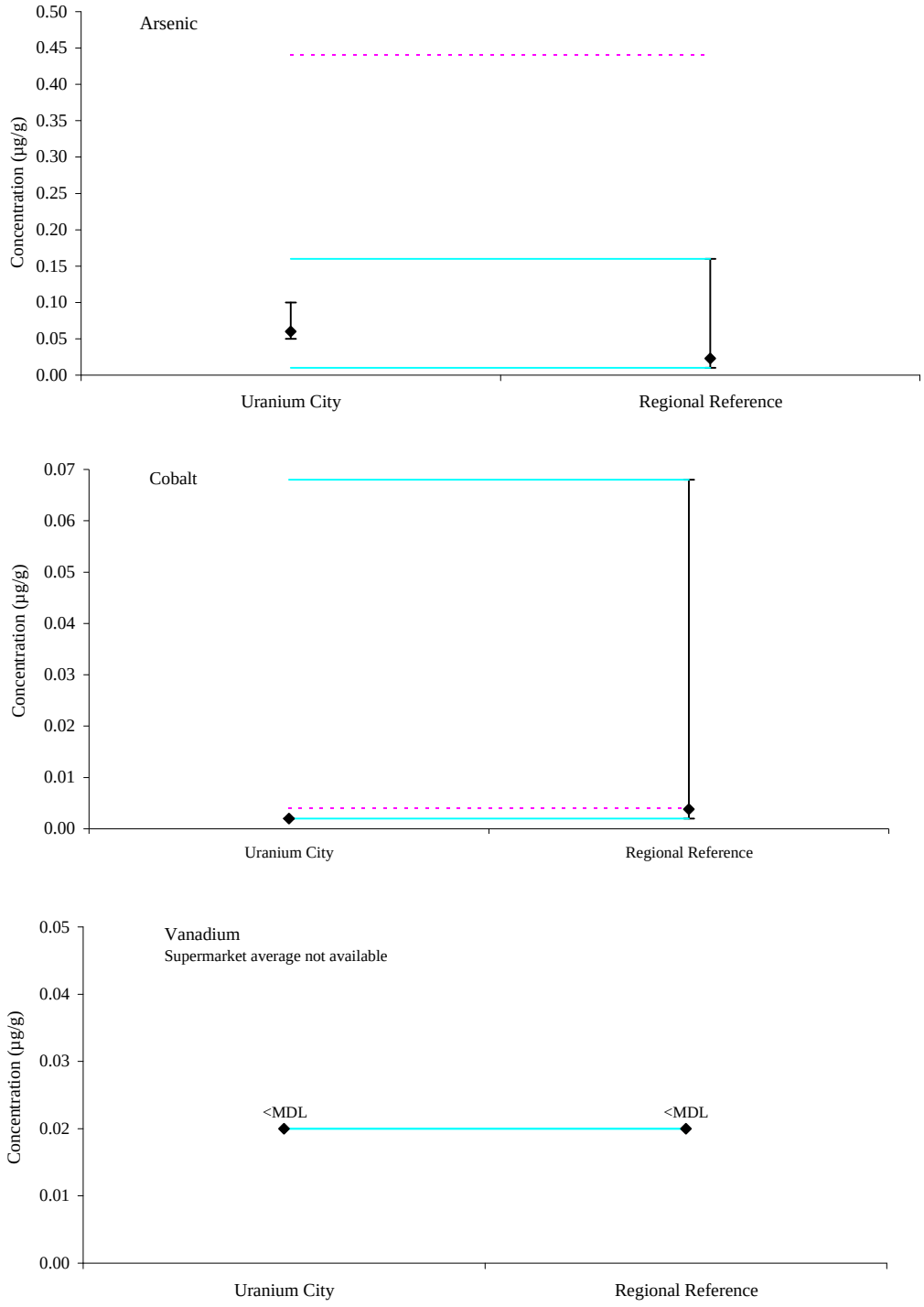

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Comparison of northern pike POPCs to regional reference values (2006-2011) and average
Error bars are minimum and maximum values. <MDL signifies all values were inferior to the method detection limit. For average and standard deviation computations, values <MDL were set at the MDL.

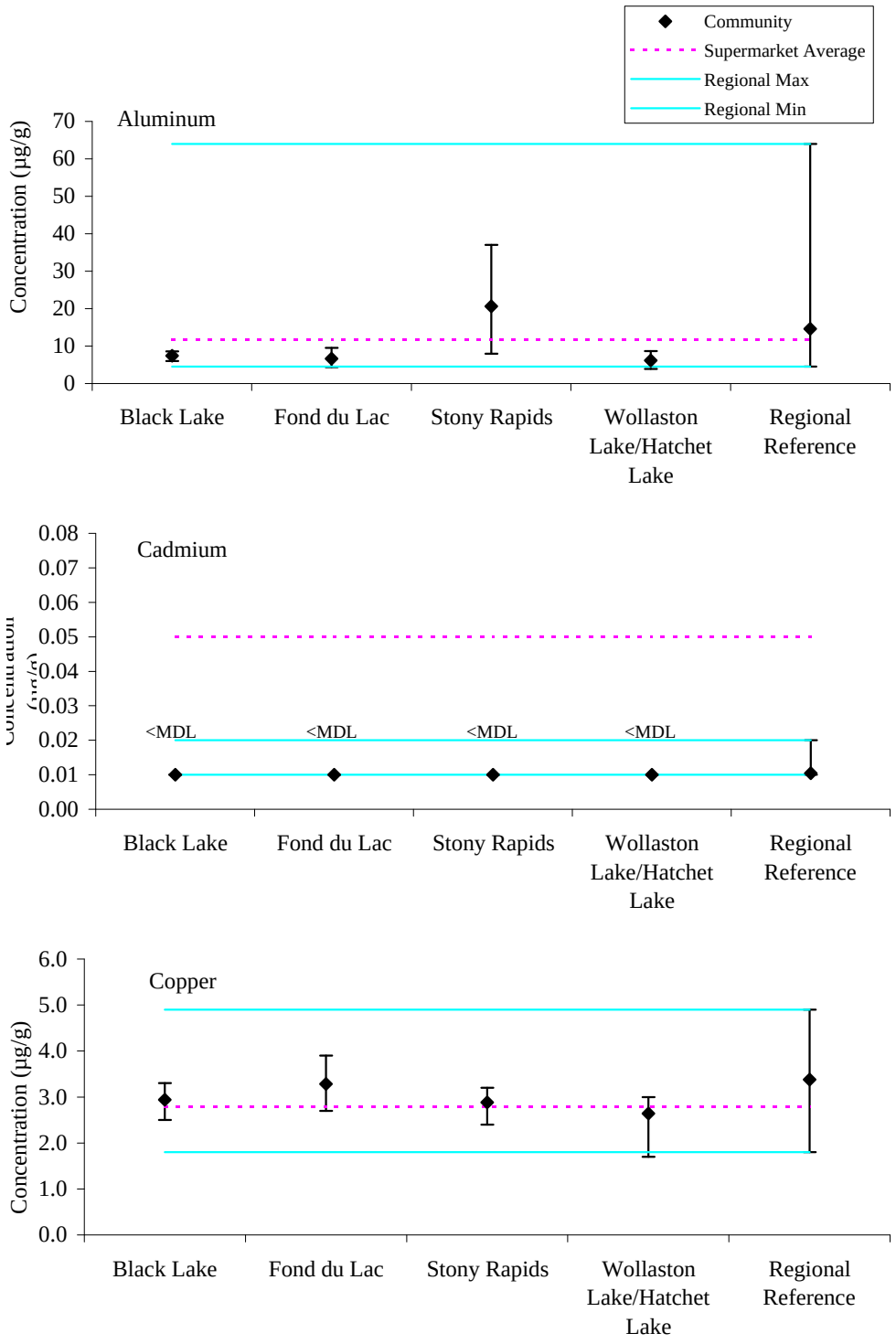
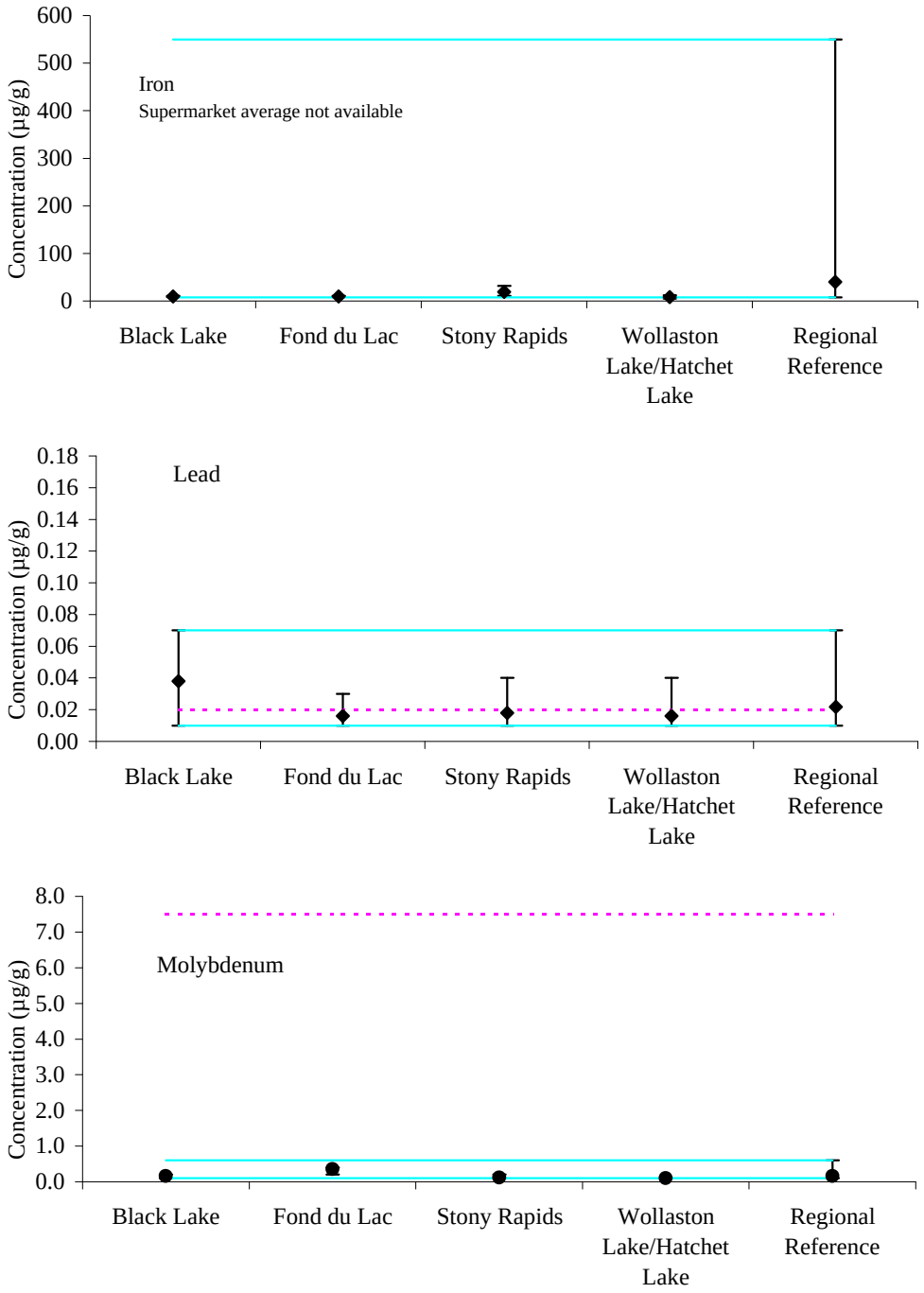


Figure 2.3-4
Comparisons of blueberry POPC concentrations to regional references values (2008-2011) and average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values are inferior to the MDL. For average and standard deviation computations, values <MDL were set at the MDL.



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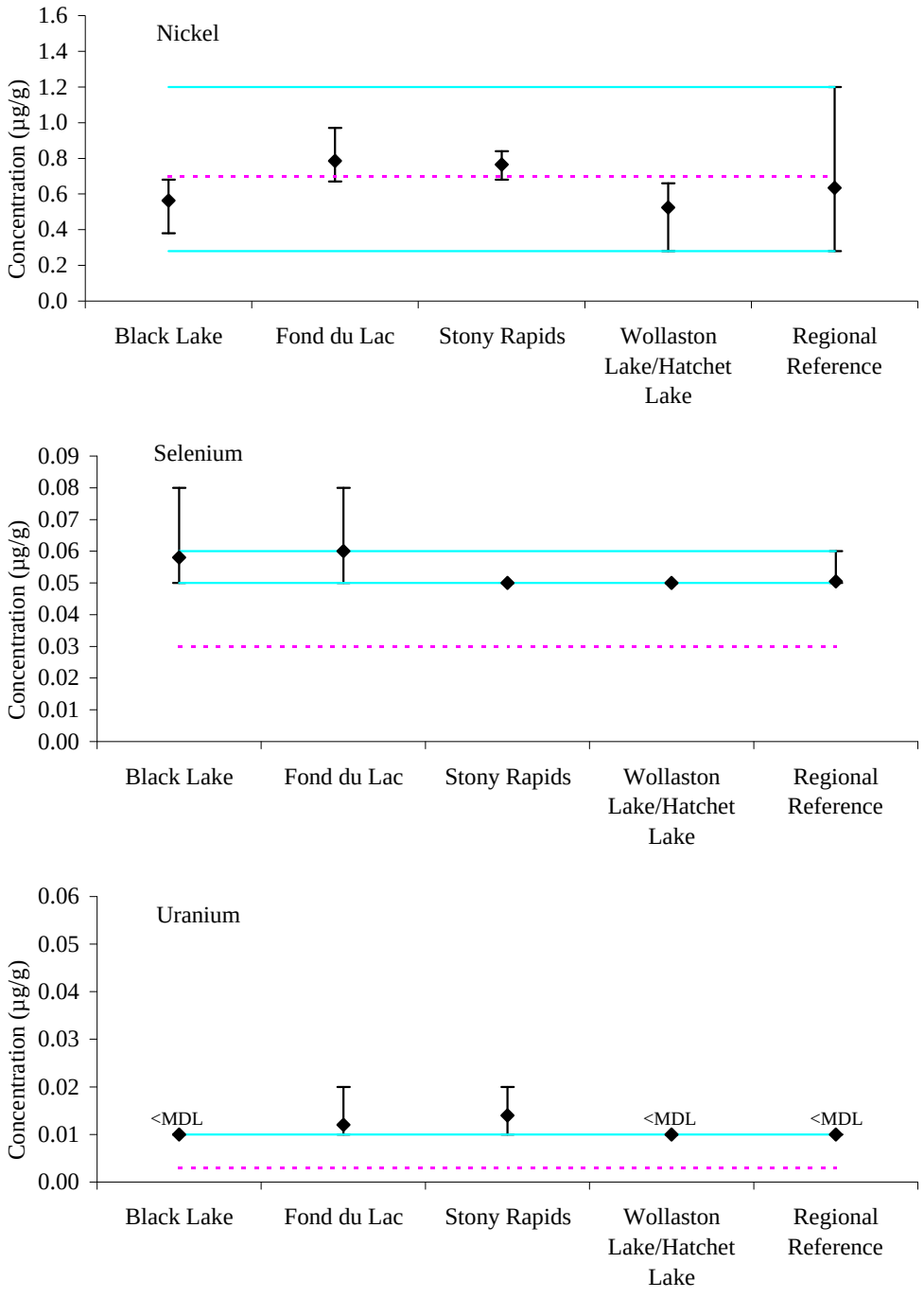

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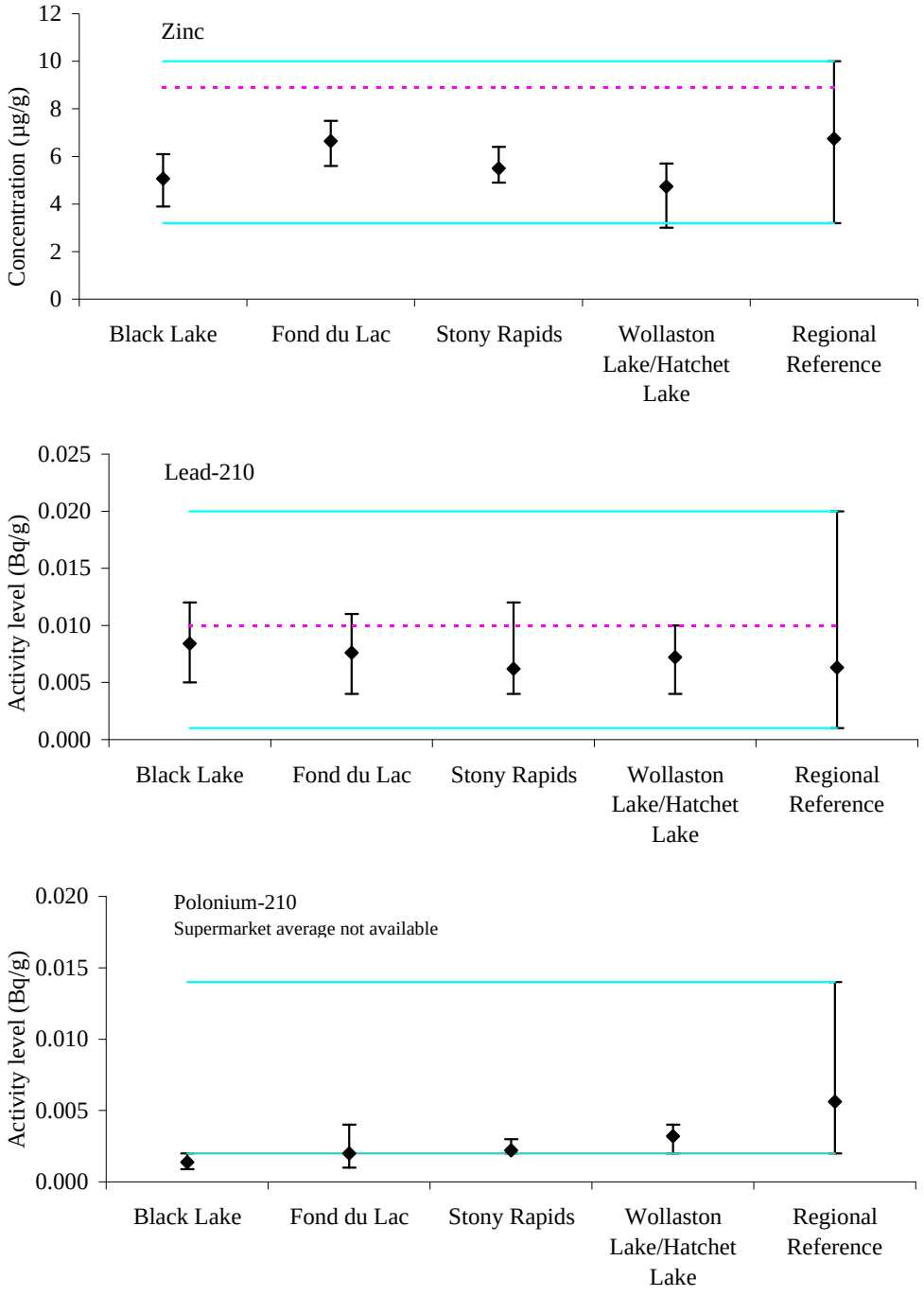

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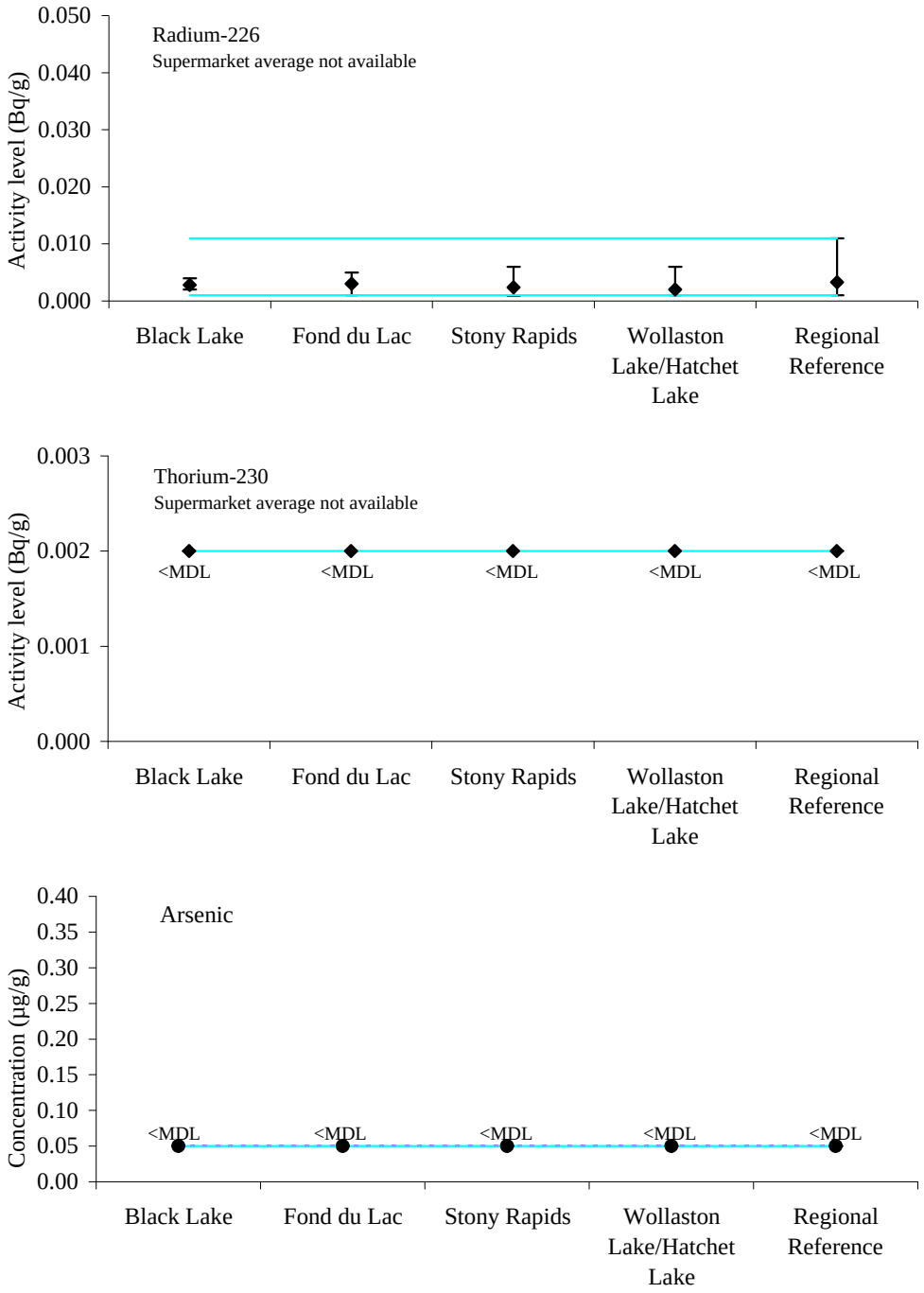

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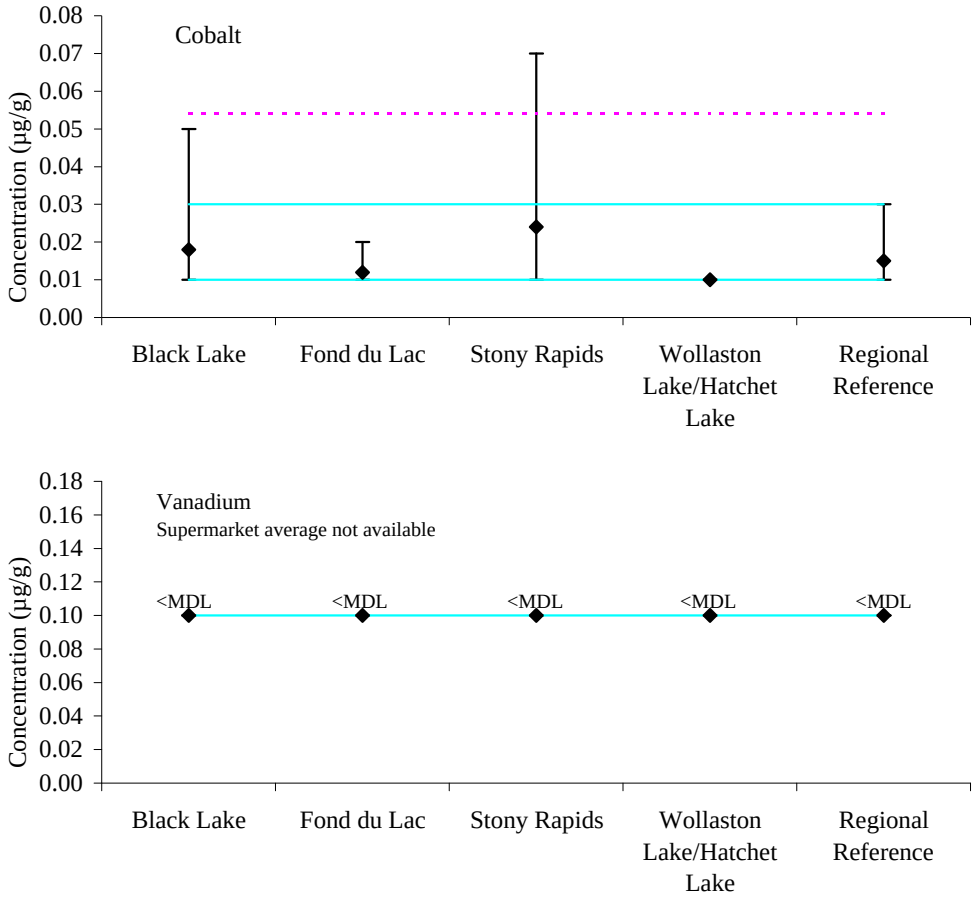

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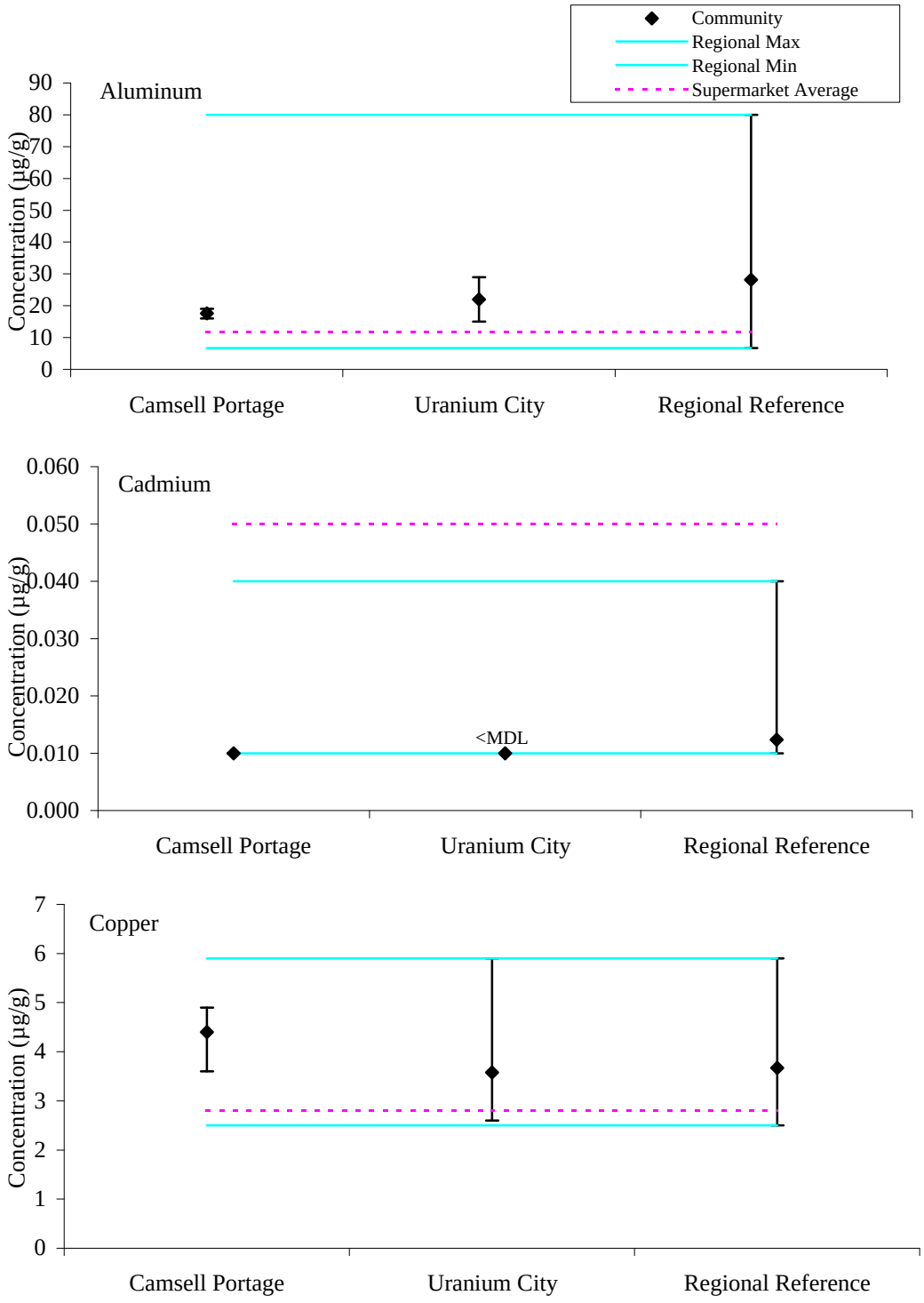

Figure 2.3-5
Comparisons of cranberry POPC concentrations to regional references values (2008-2011) and average supermarket values.

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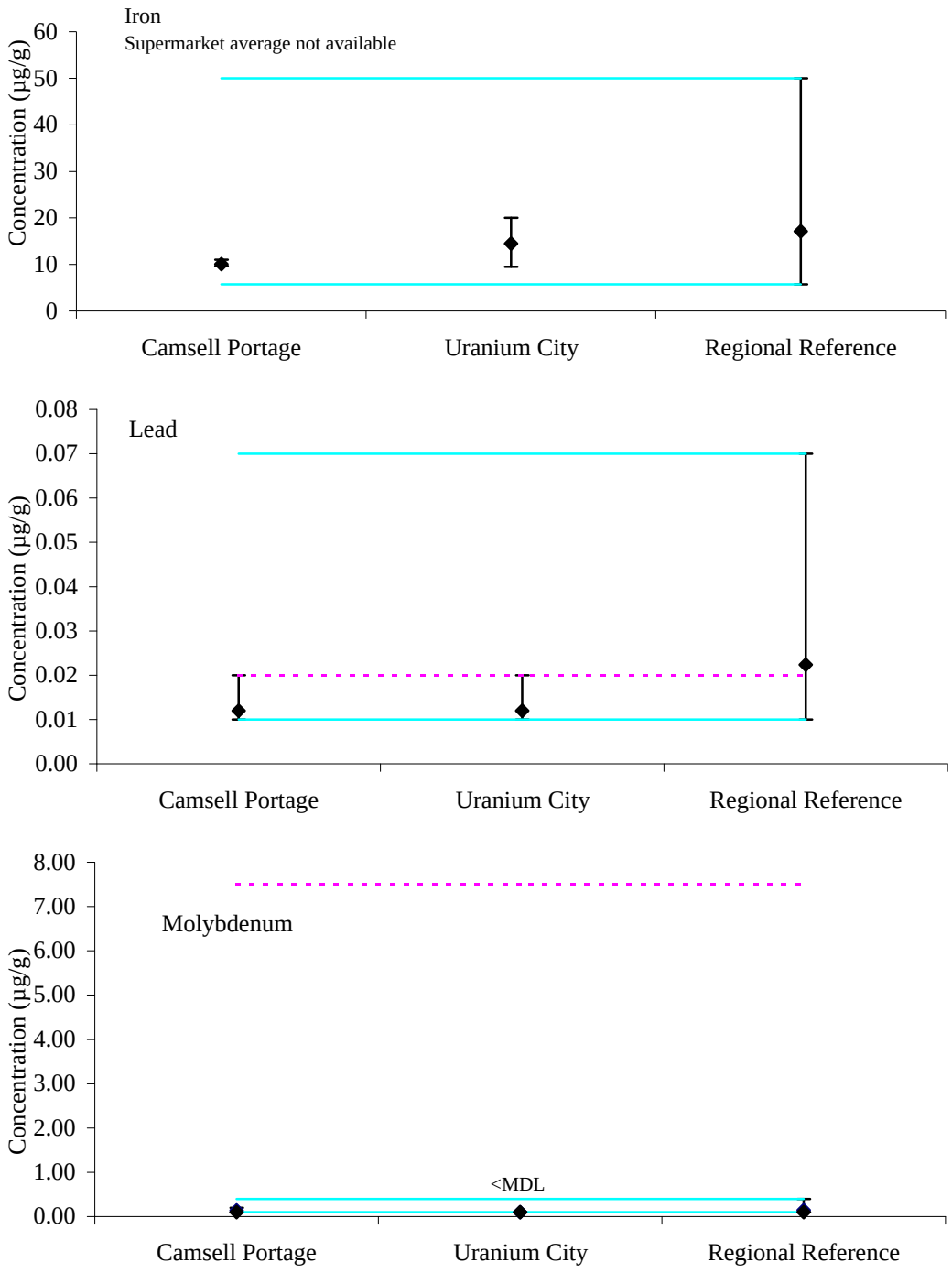

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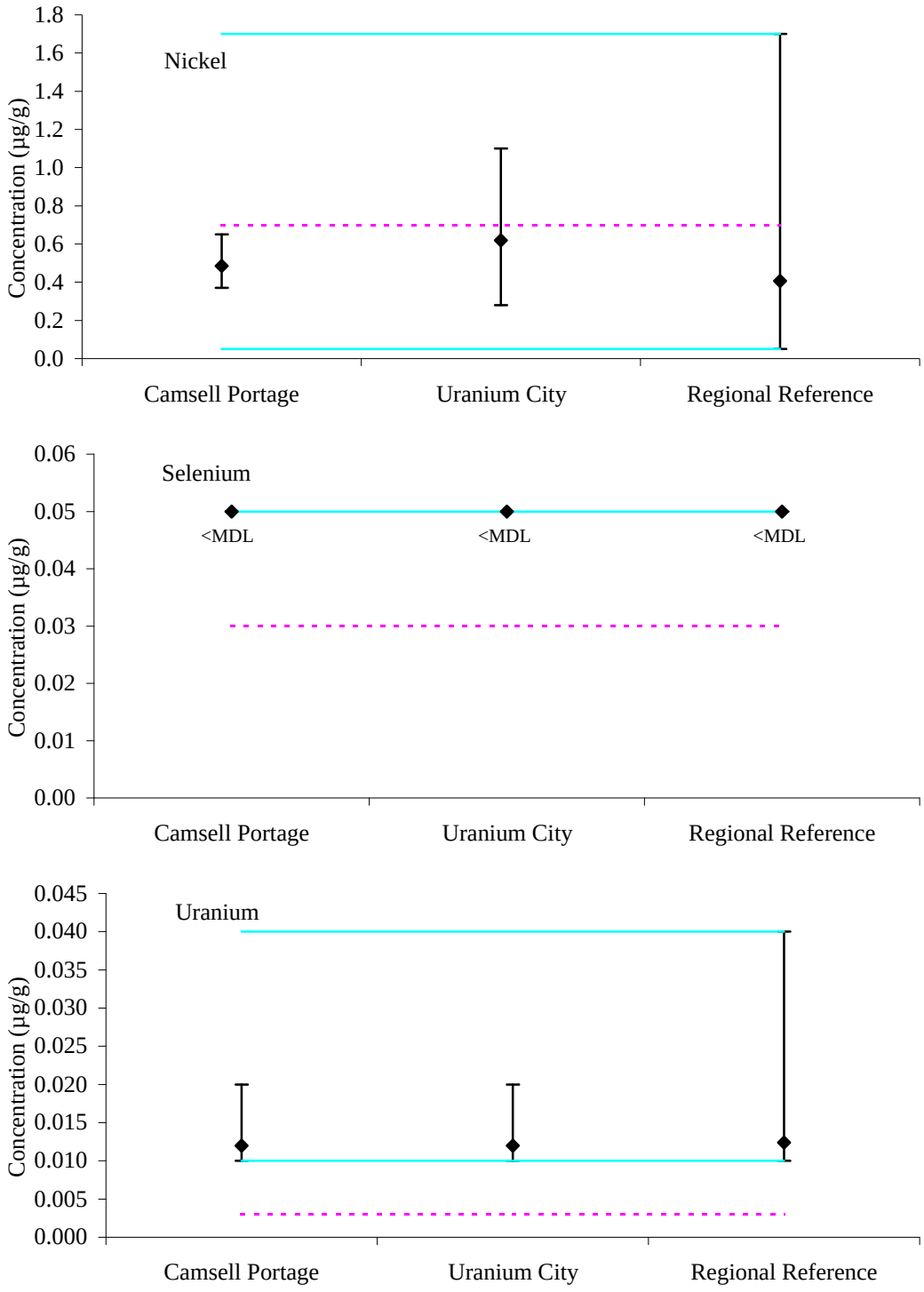

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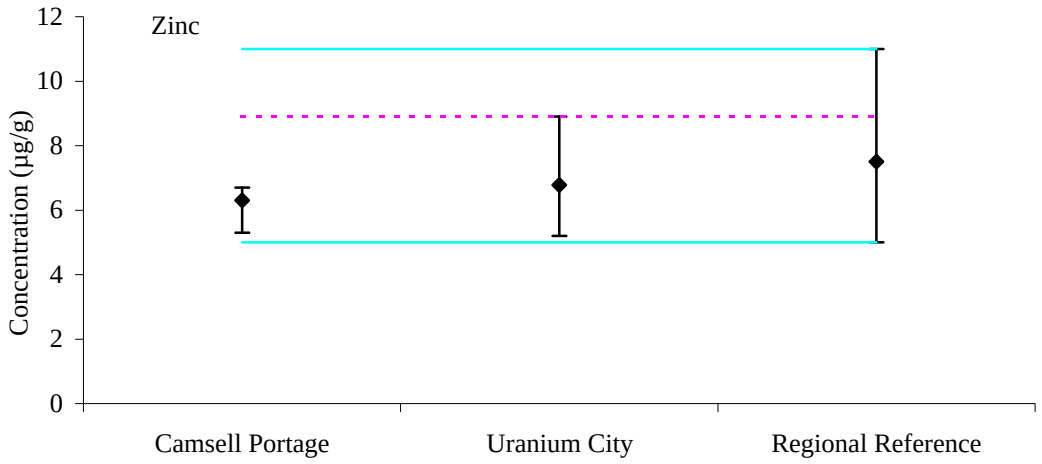
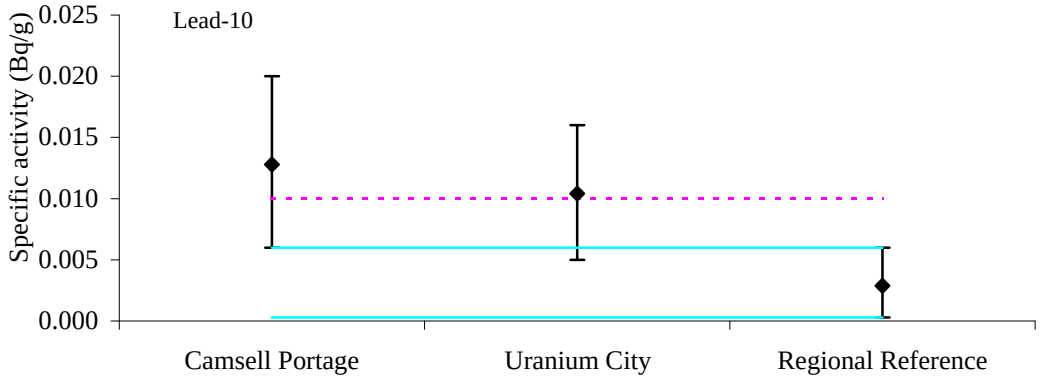
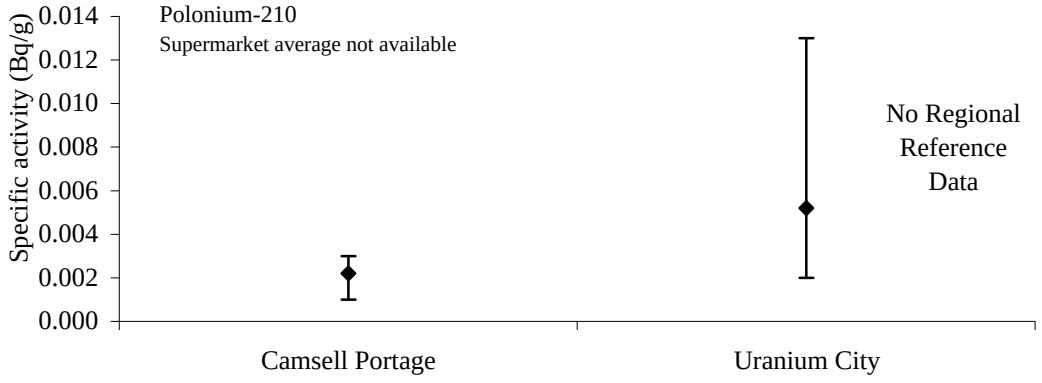
Comparisons of cranberry POPC concentrations to regional references (2008-2011) and average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values are inferior to the MDL. For average and standard deviation computations, values <MDL were set at the MDL.







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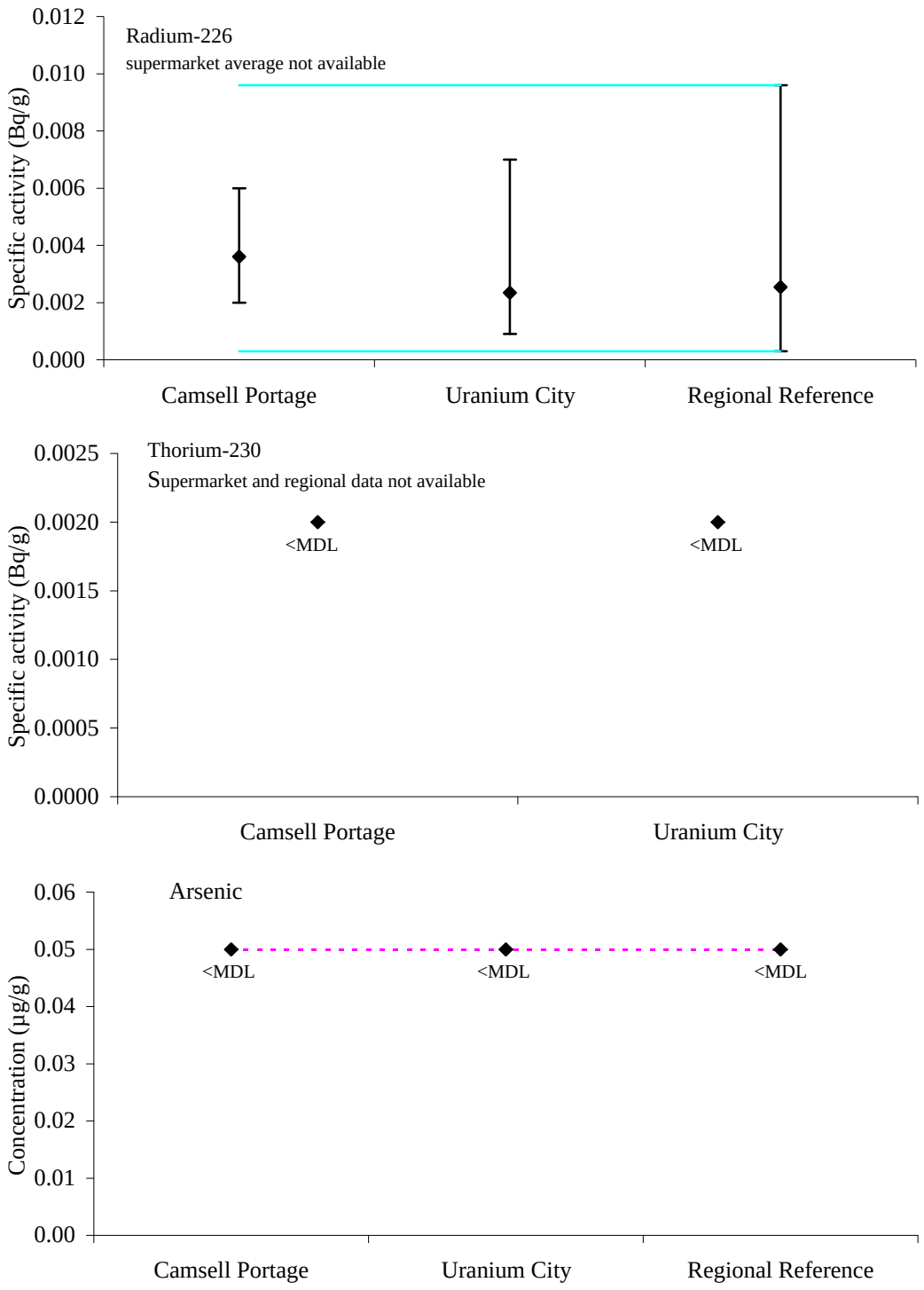

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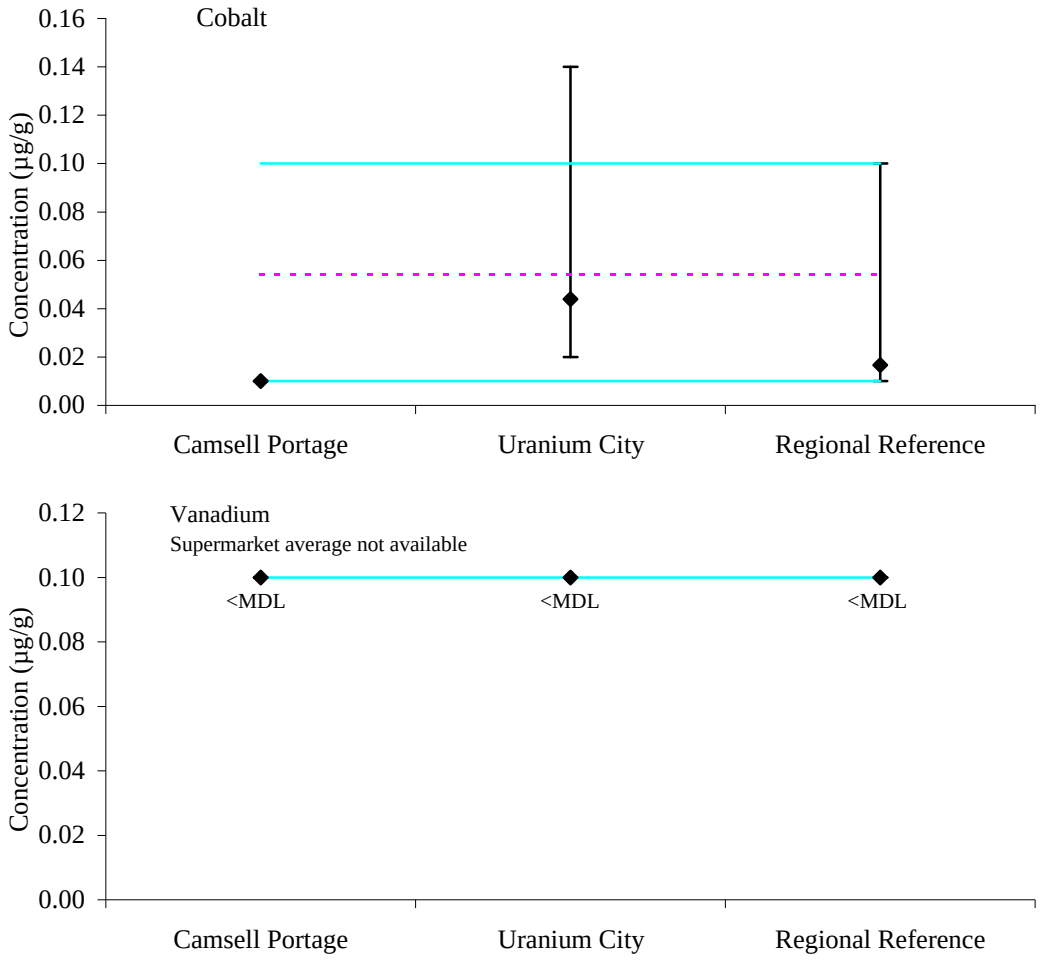
Comparisons of cranberry POPC concentrations to regional references (2008-2011) and average supermarket values.
Error bars are minimum and maximum values. <MDL signifies all values are inferior to the MDL. For average and standard deviation computations, values <MDL were set at the MDL.



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Error bars are minimum and maximum values. <MDL signifies all values are inferior to the MDL. For average and standard deviation computations, values <MDL were set at the MDL.

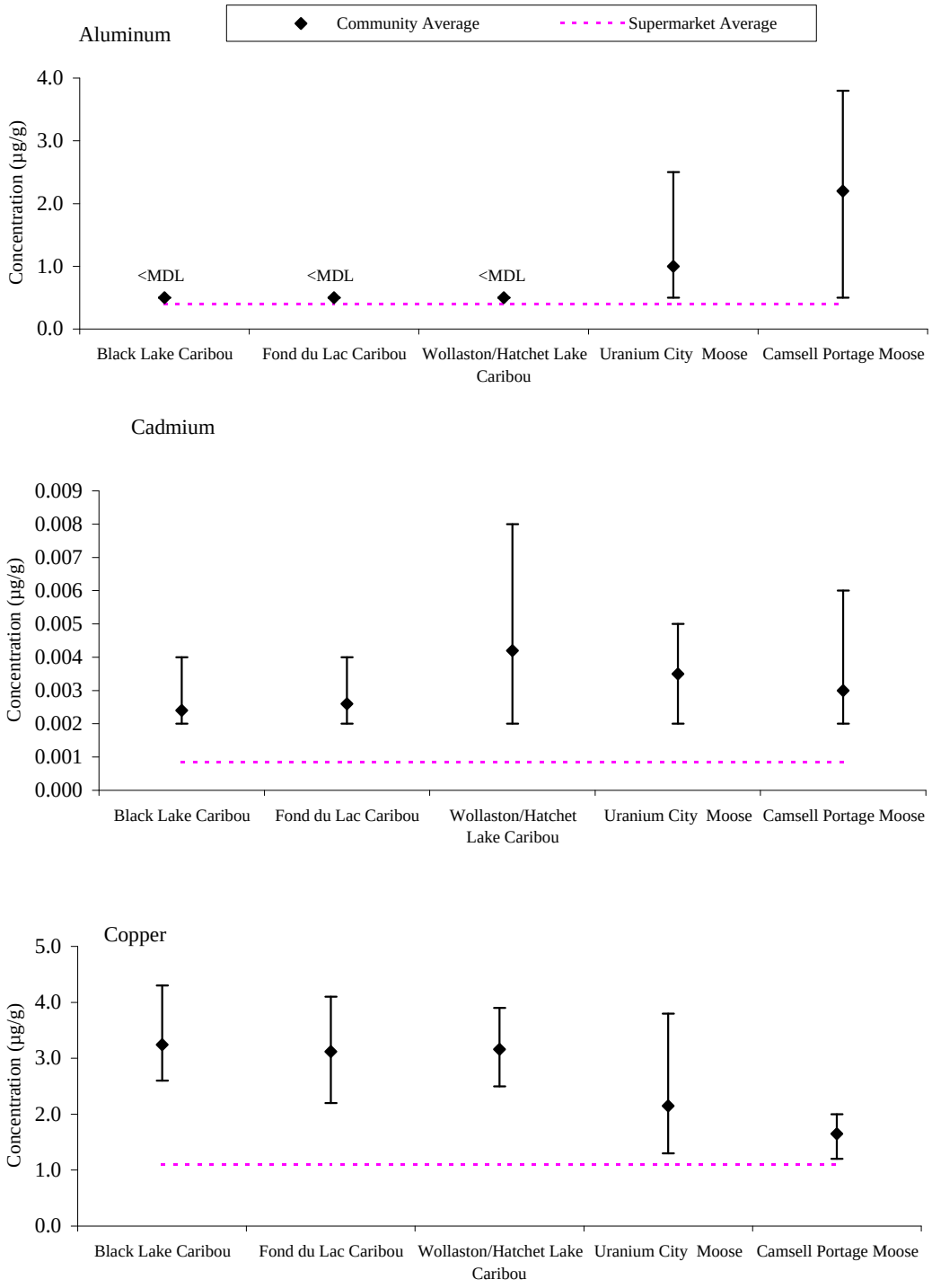

Figure 2.3-6

Comparisons of caribou/moose POPC concentrations to average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the MDL.
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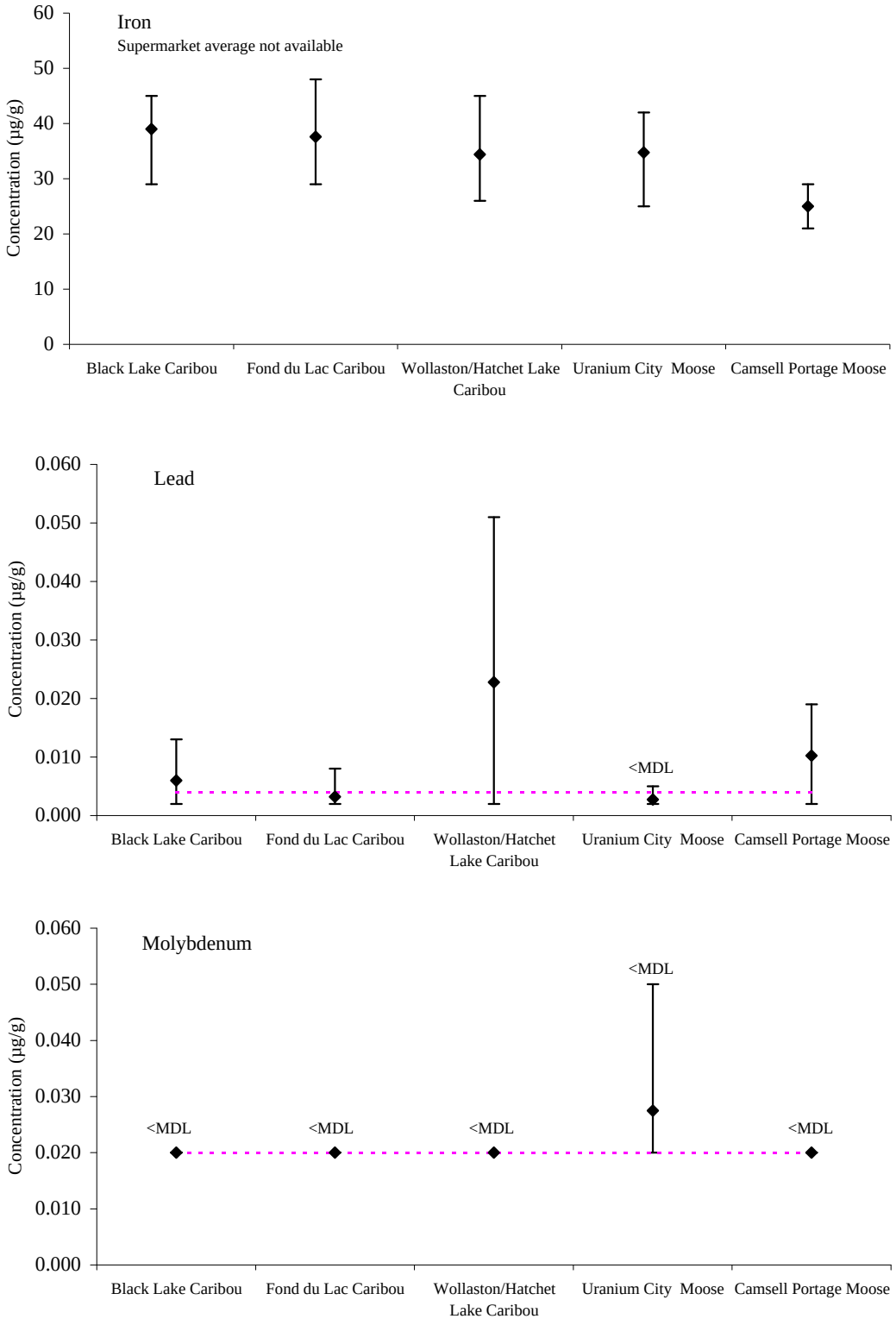

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Comparisons of caribou/moose POPC concentrations to average supermarket values.

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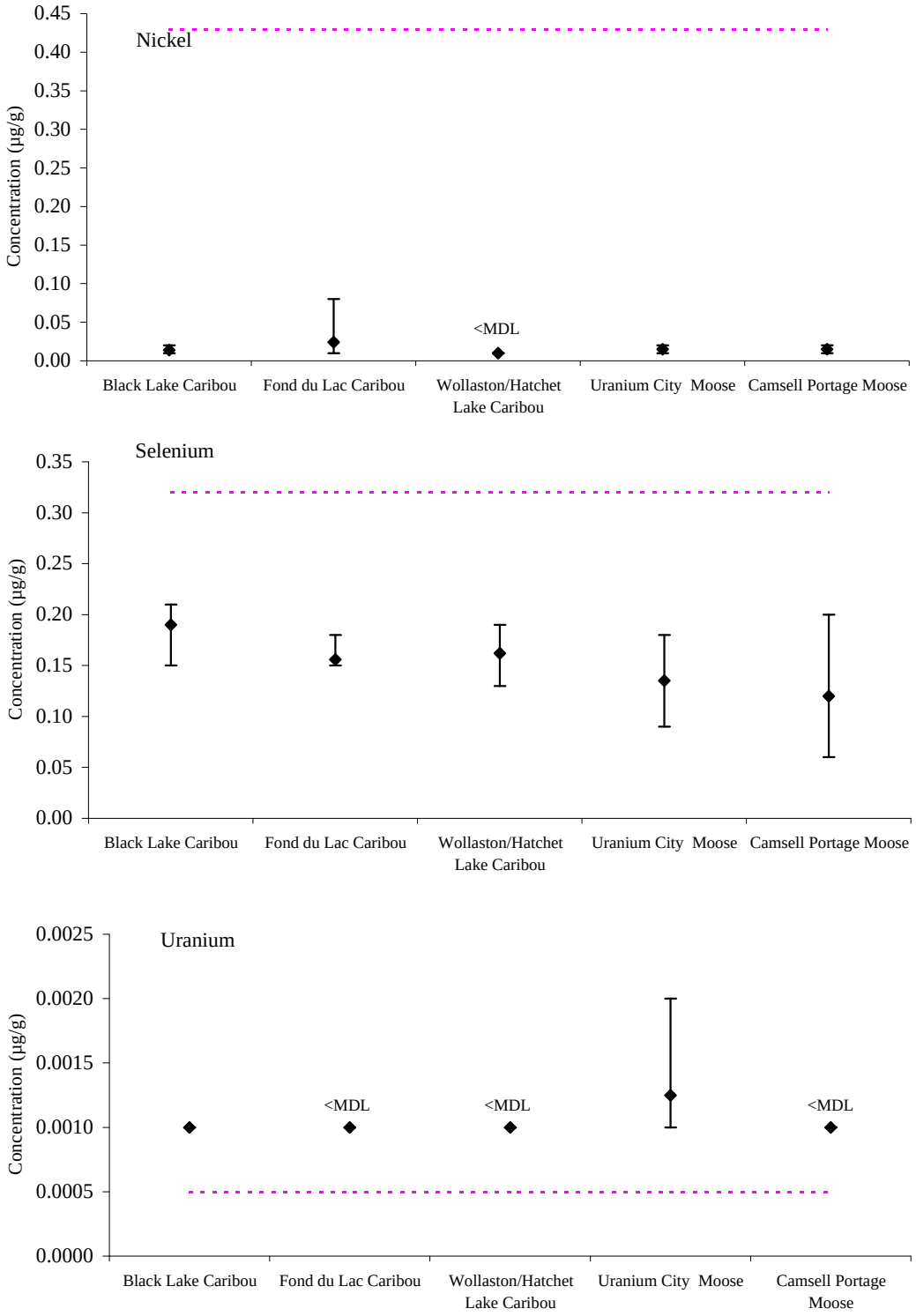

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Comparisons of caribou/moose POPC concentrations to average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the MDL.
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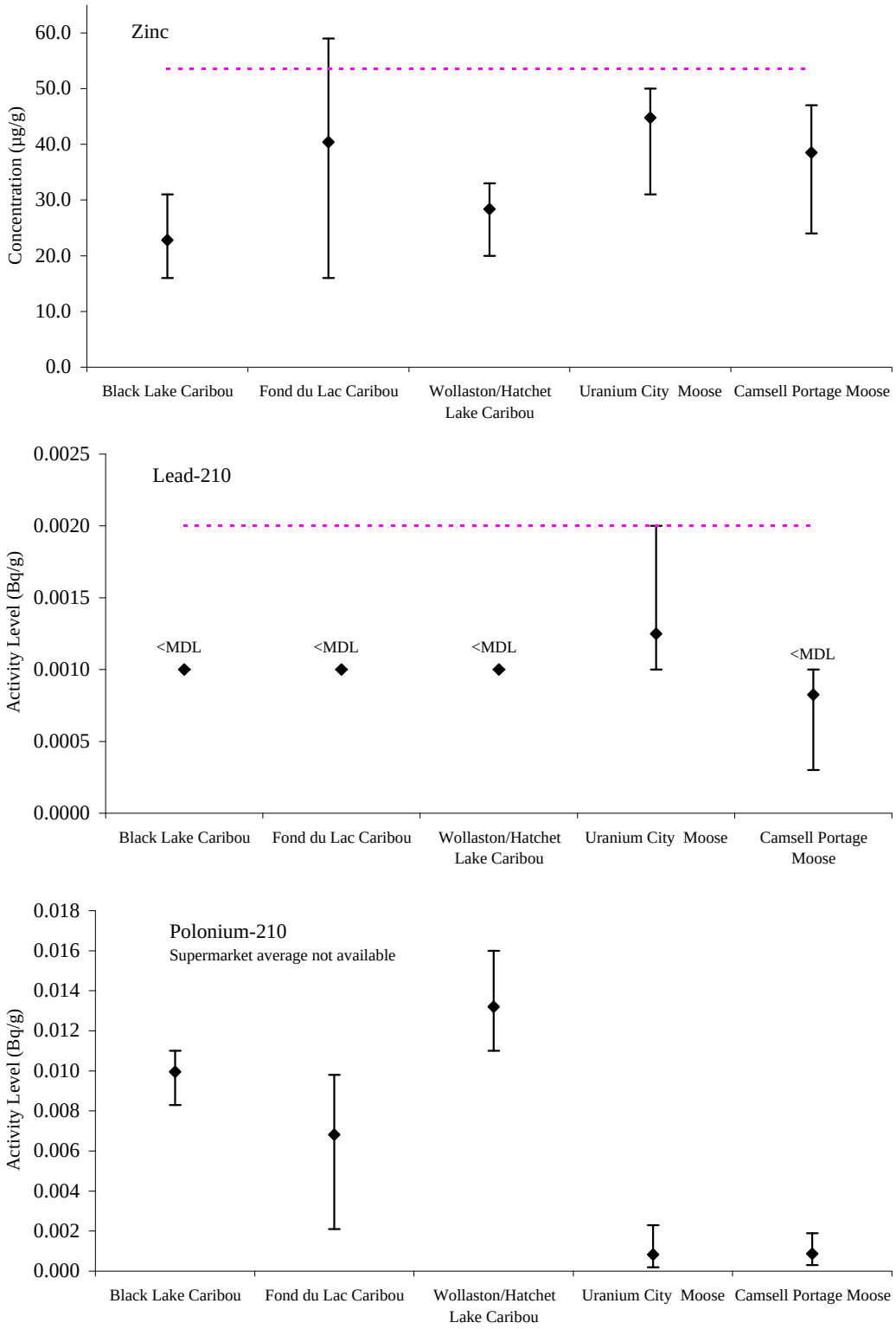

Figure 2.3-6

Comparisons of caribou/moose POPC concentrations to average supermarket values.

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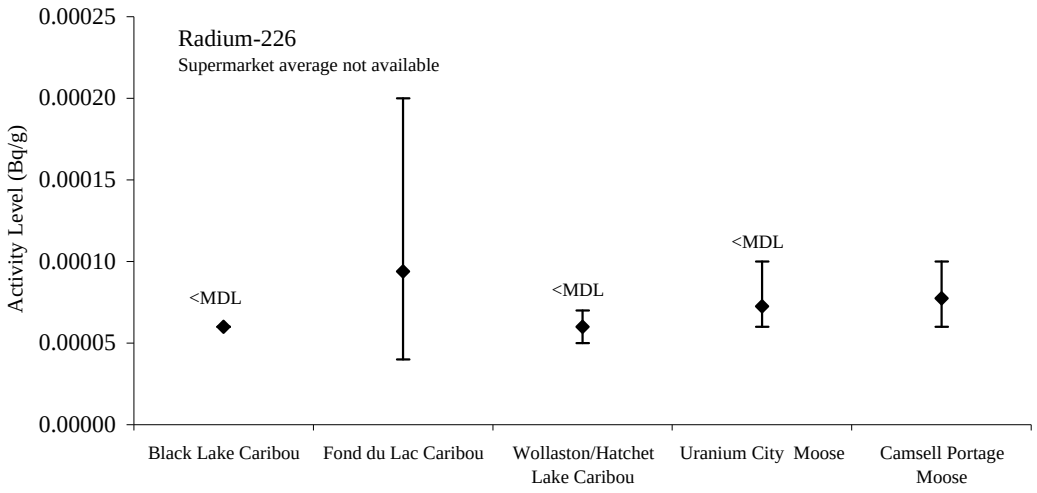

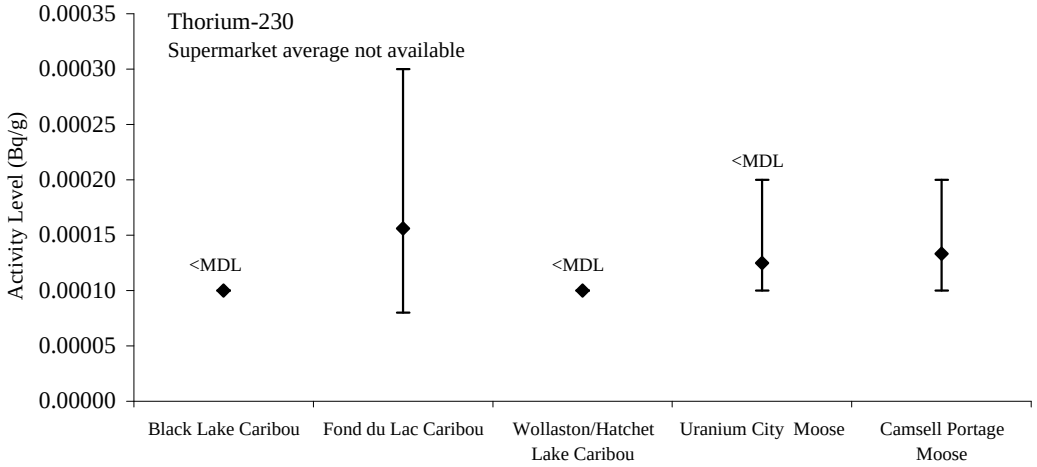

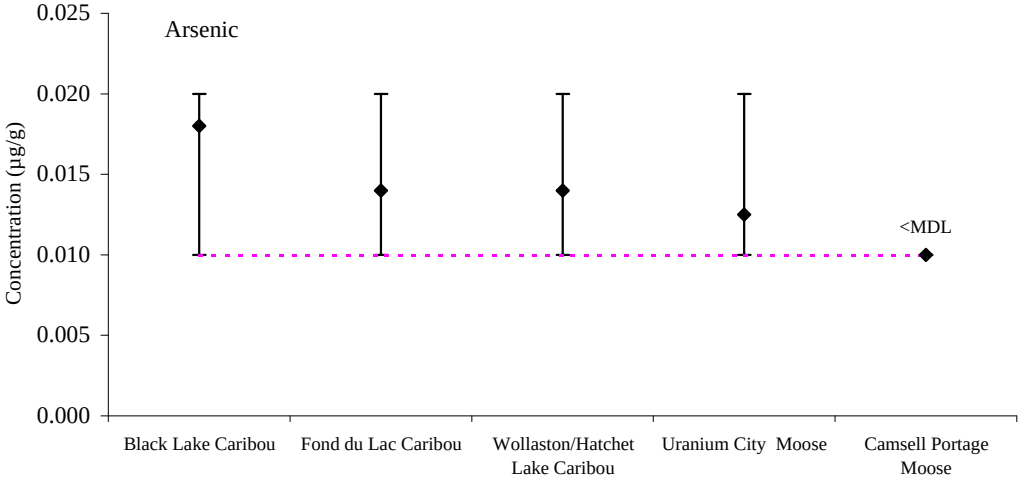

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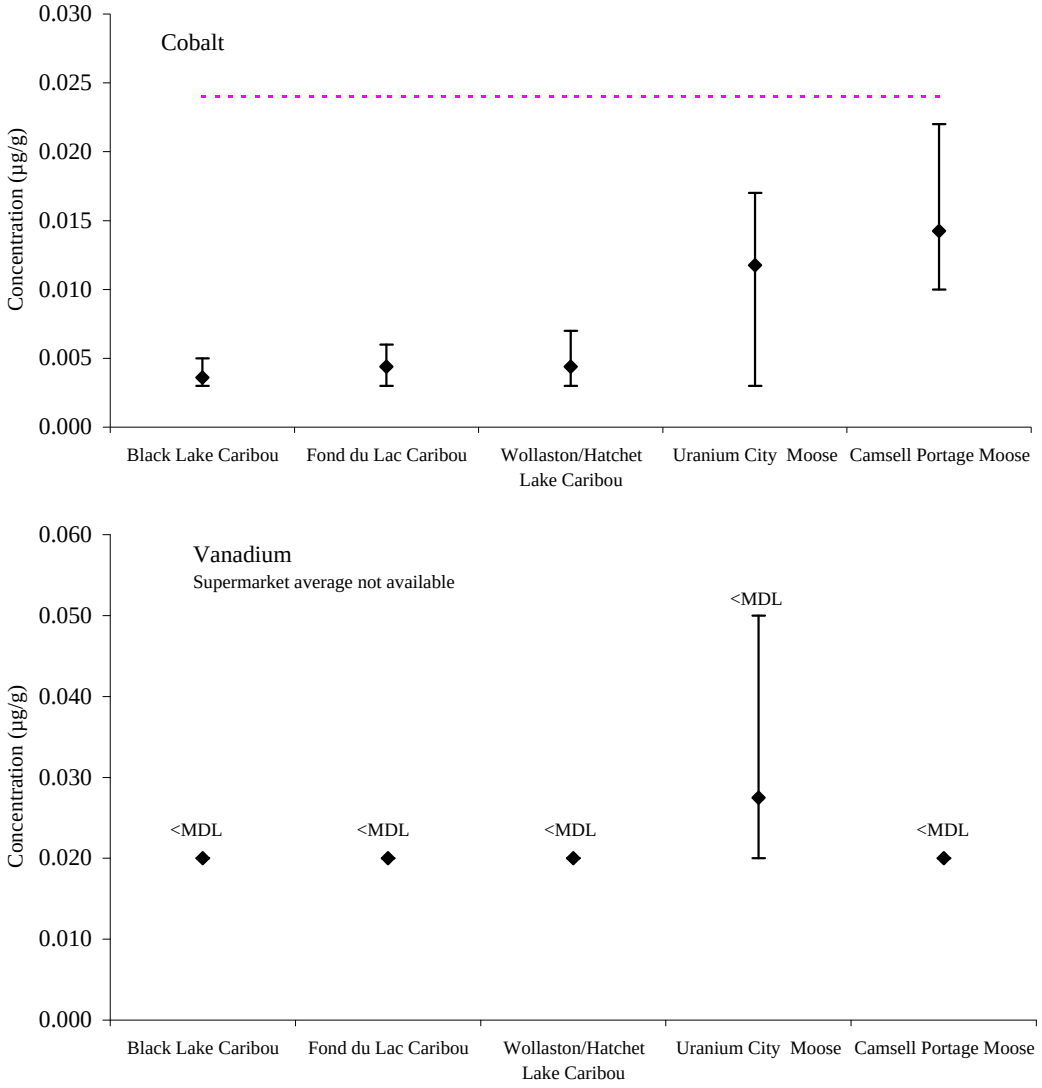

Figure 2.3-6

Comparisons of caribou/moose POPC concentrations to average supermarket values.

Error bars are minimum and maximum values. <MDL signifies all values were inferior to the MDL.
For average and standard deviation computations, values <MDL were set at the MDL.

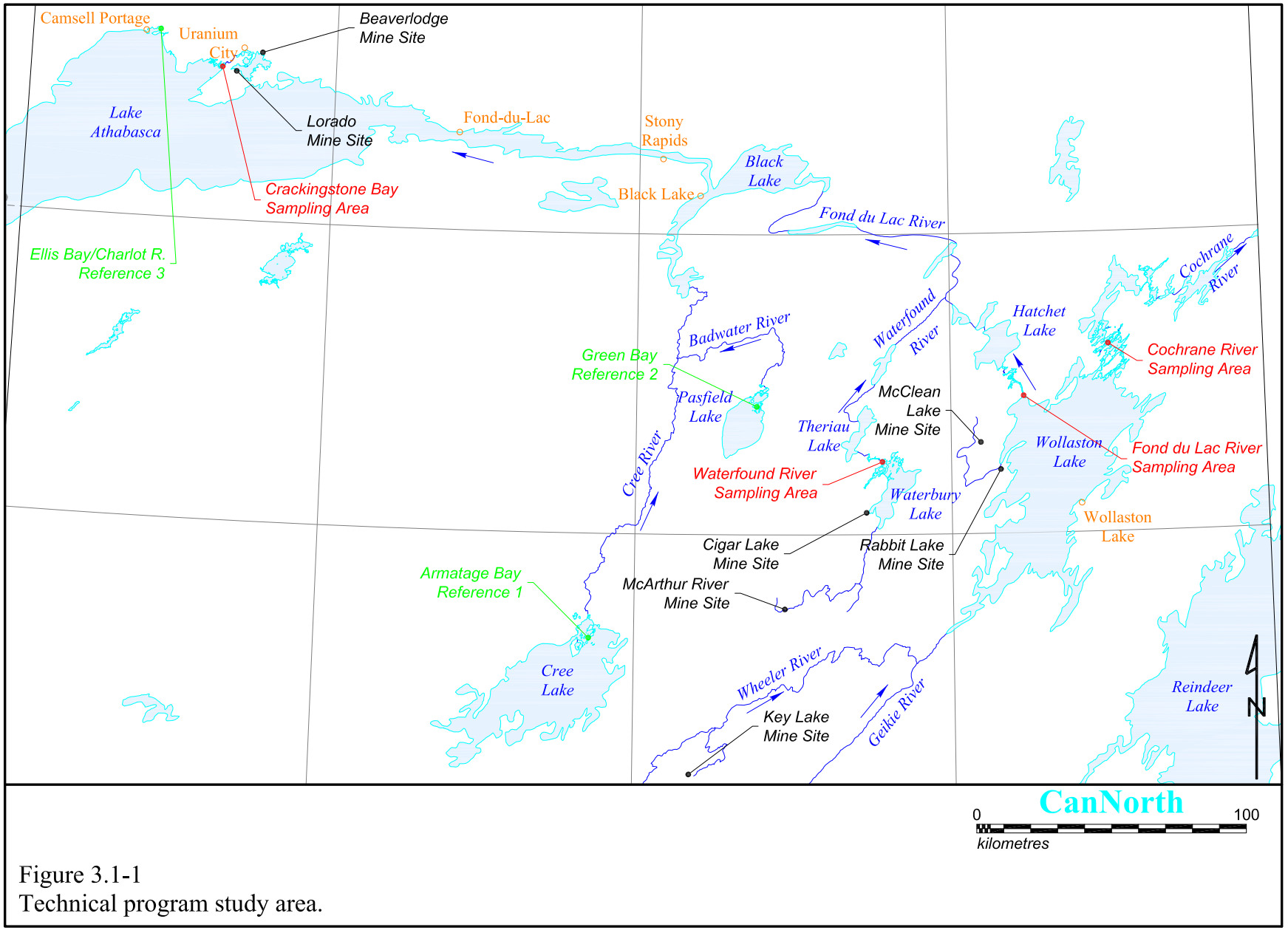

Figure 3.1-1
Technical program study area.

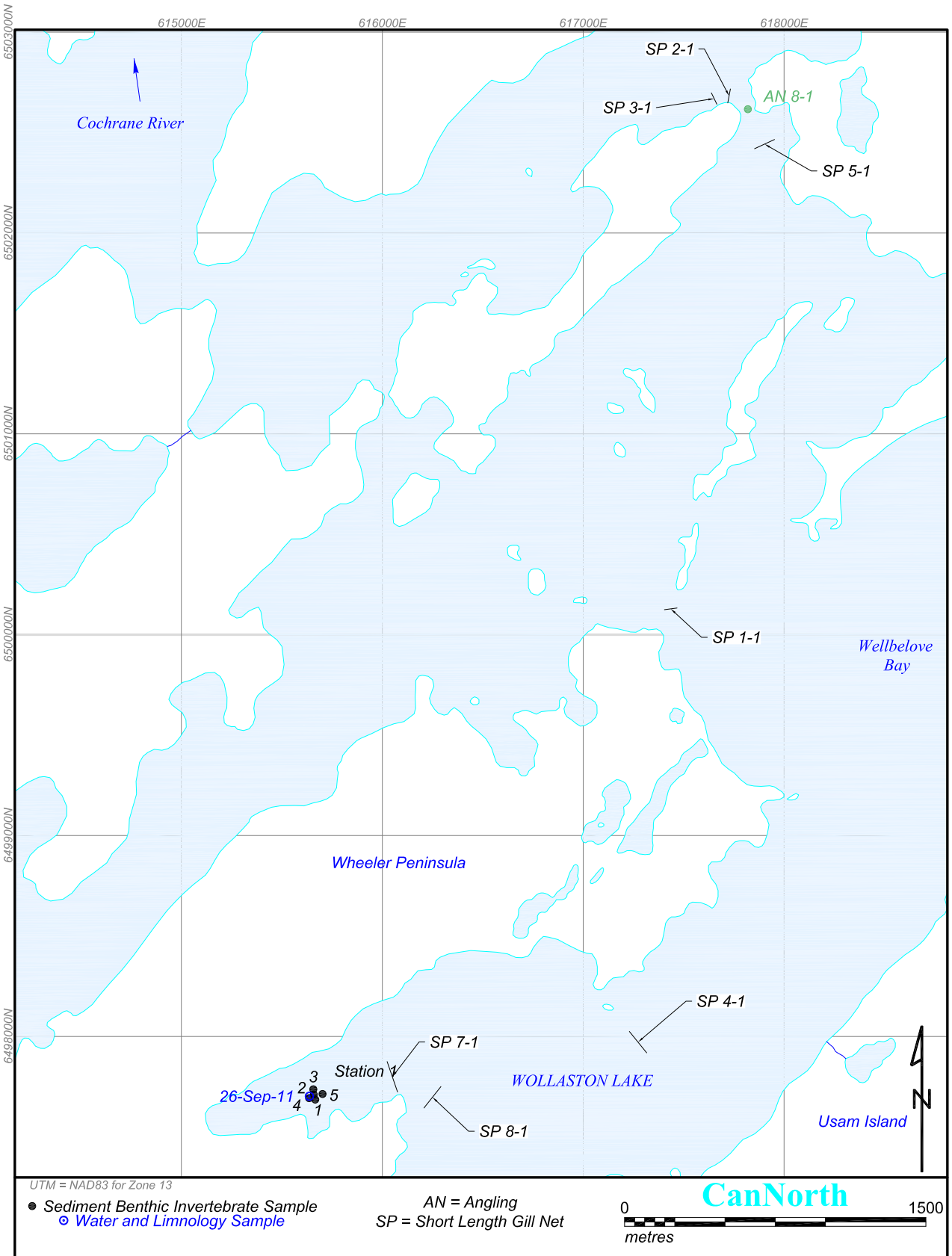

Figure 3.2-1
Sampling locations in the Cochrane River for the EARMP technical program, fall 2011.

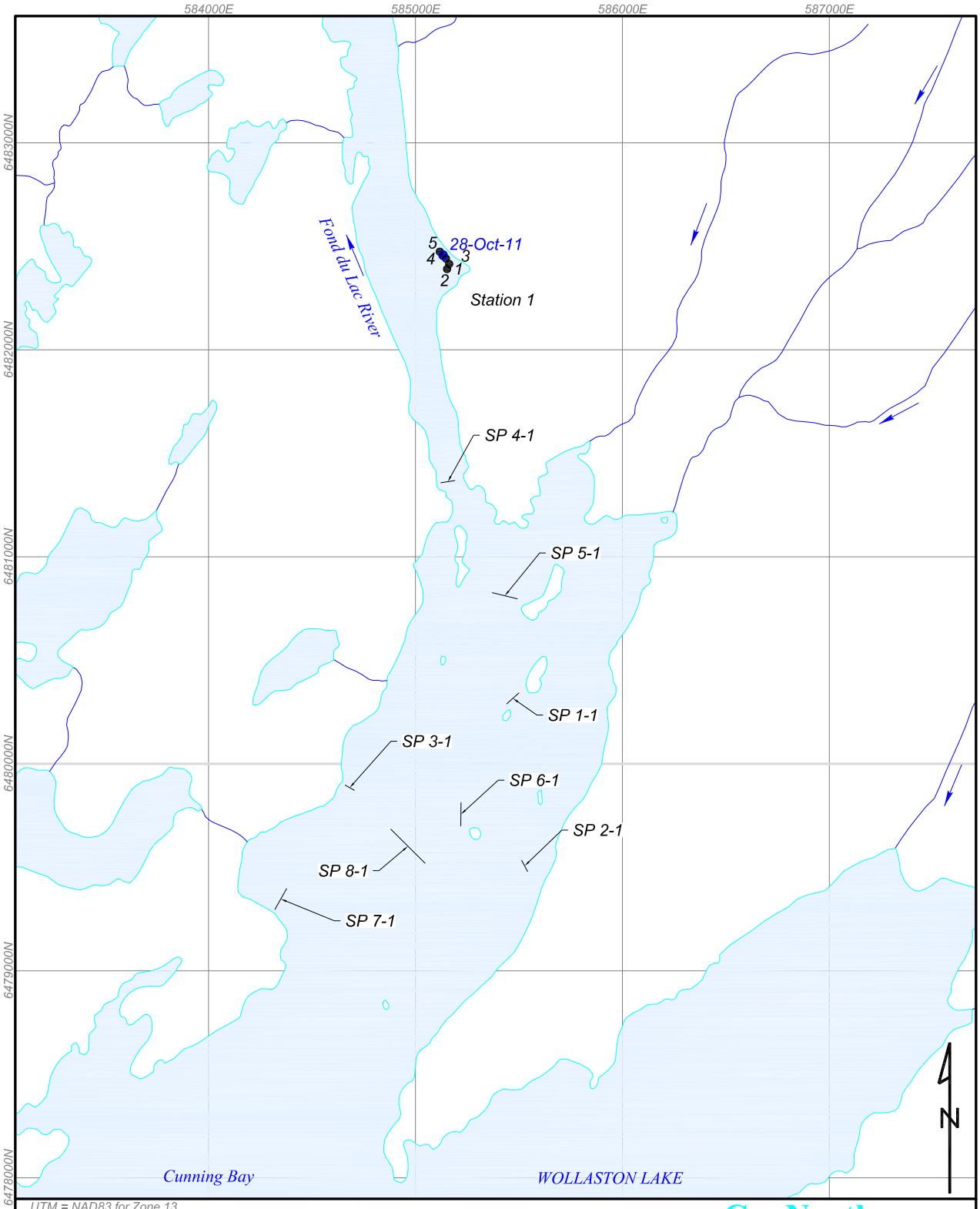

Figure 3.2-2
Sampling locations in the Fond du Lac River for the EARMP technical program, fall 2011.

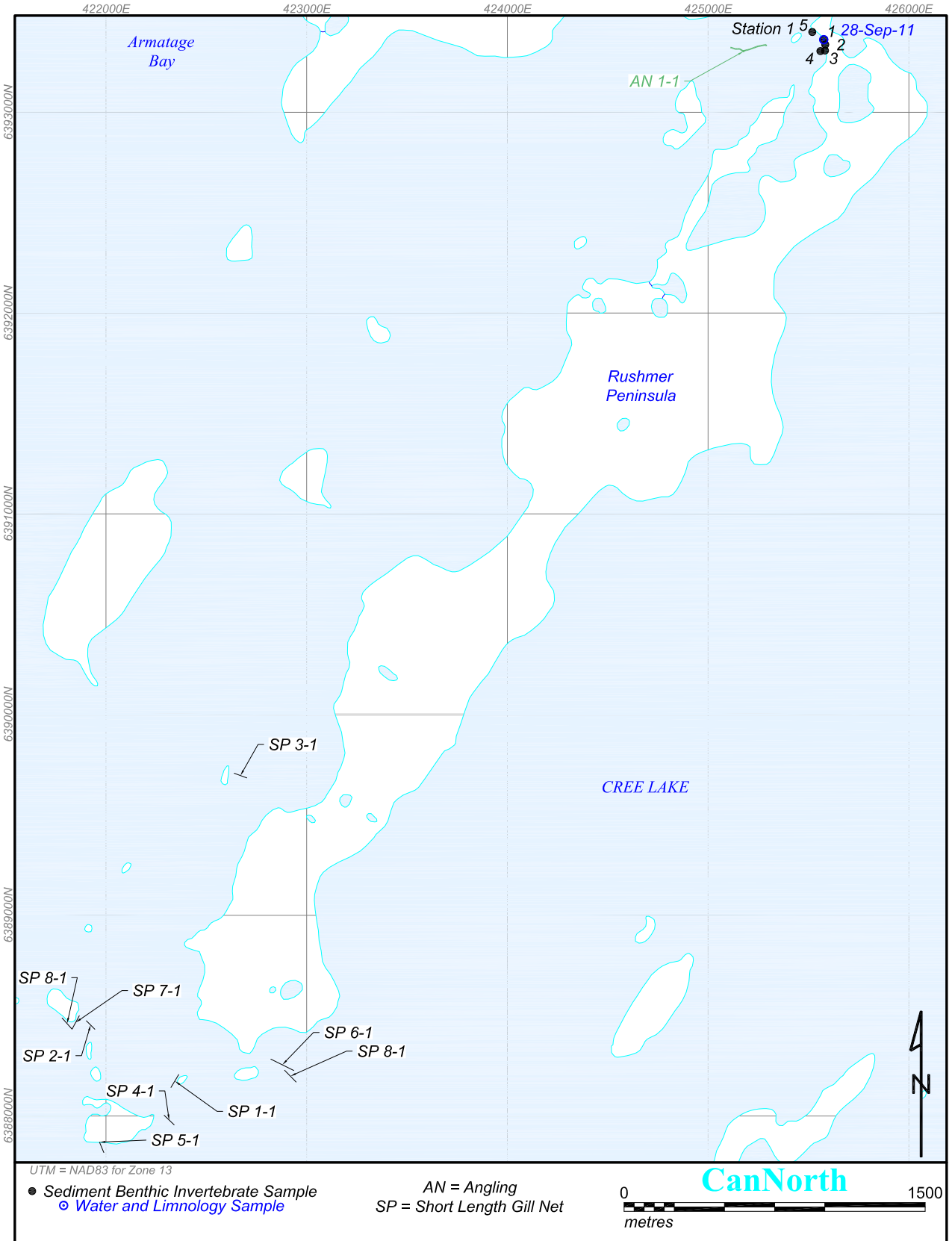

Figure 3.2-3
Sampling locations in Cree Lake for the EARMP technical program, fall 2011.

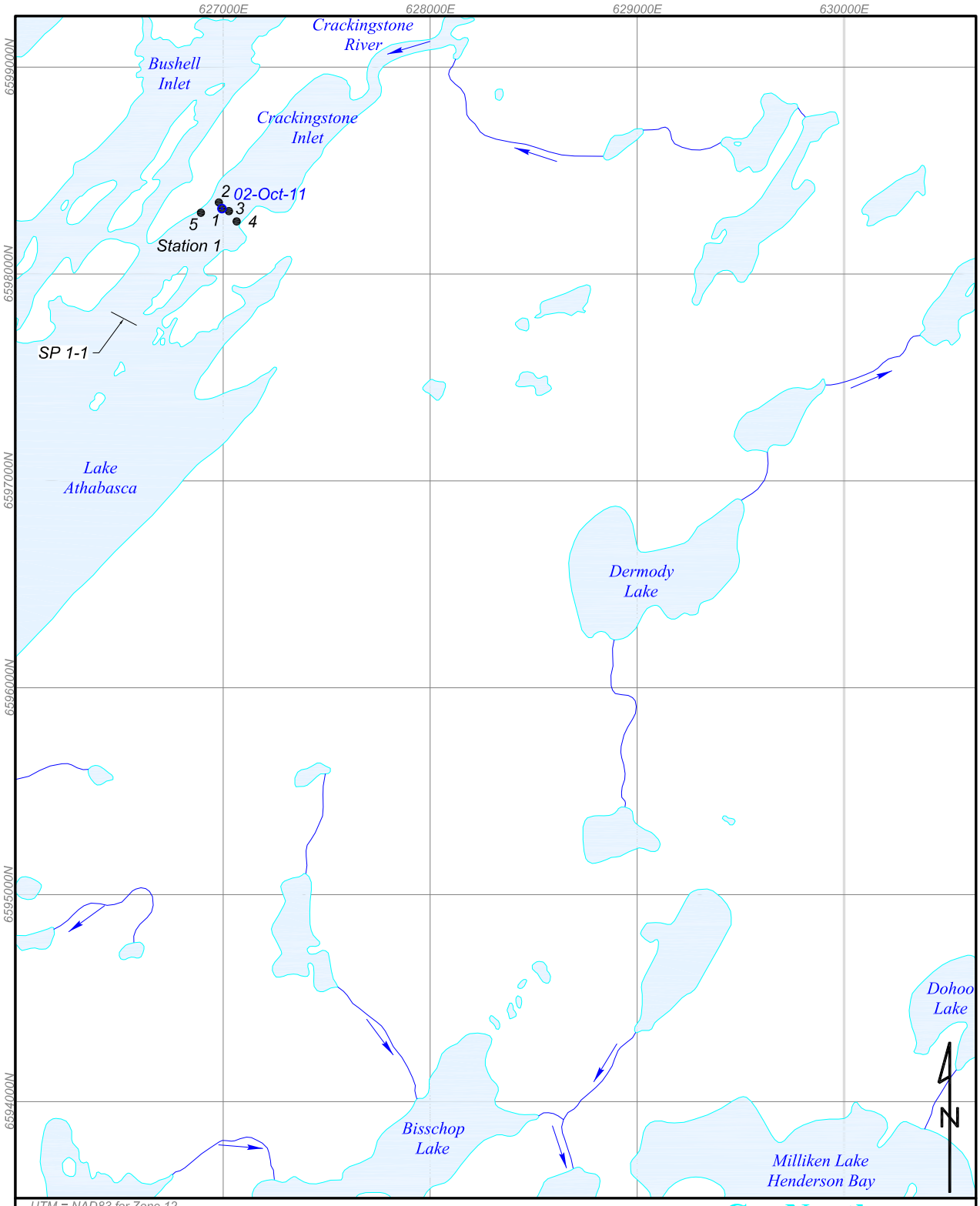

Figure 3.2-4
Sampling locations in the Crackingstone Inlet of Lake Athabasca for the EARMP technical program, fall 2011.

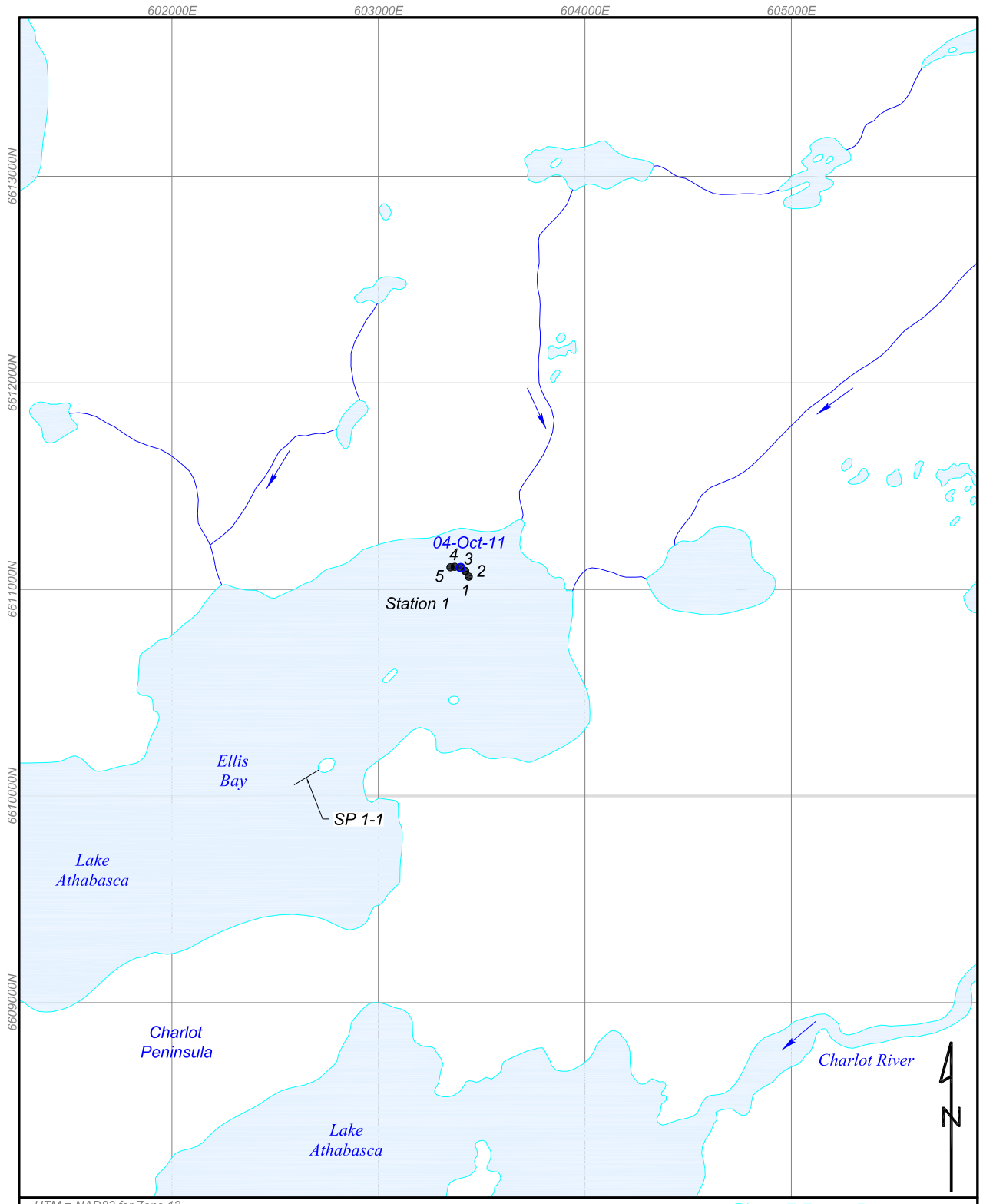

Figure 3.2-5
Sampling locations in Ellis Bay of Lake Athabasca for the EARMP technical program, fall 2011.

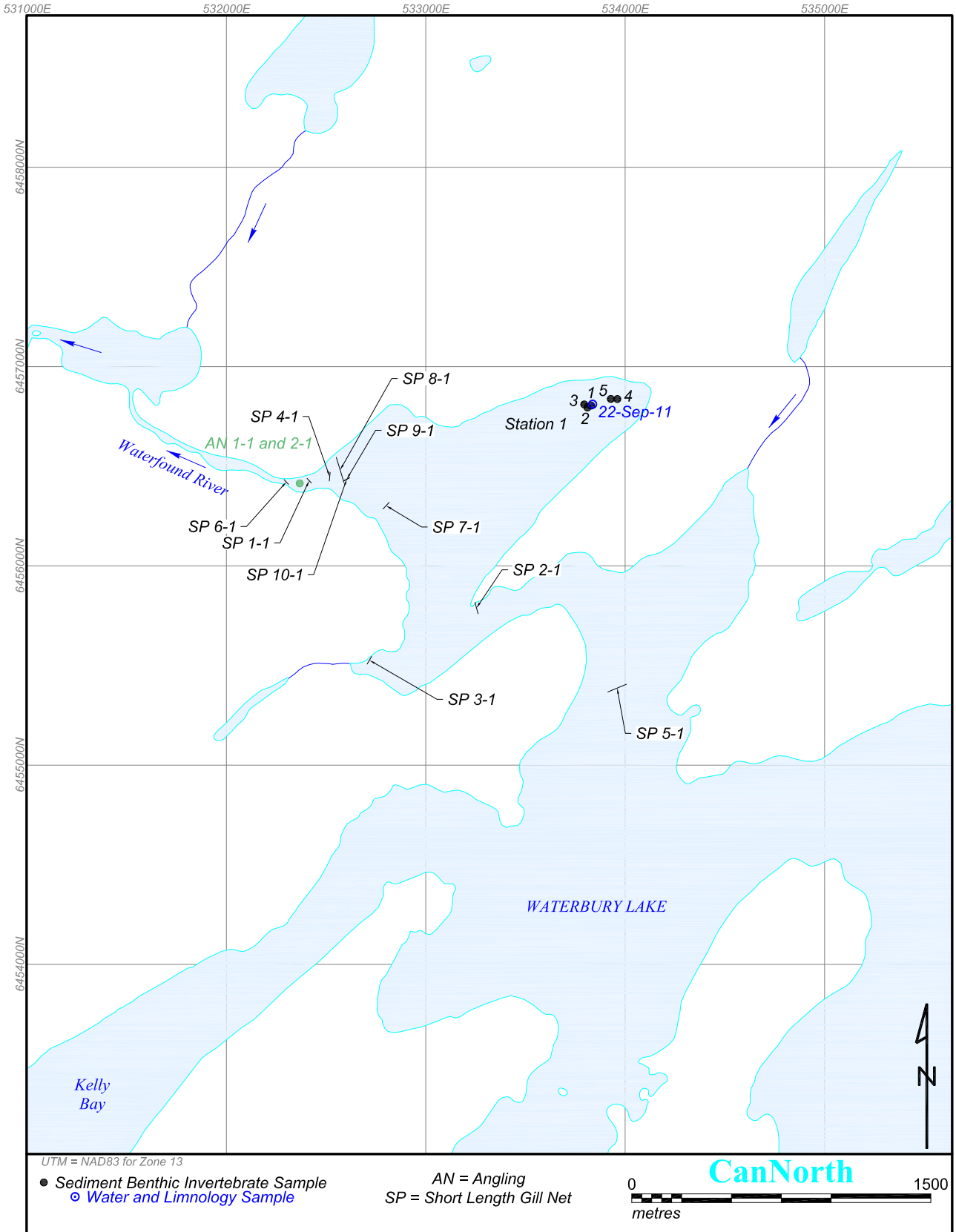

Figure 3.2-6
Sampling locations in Waterbury Lake for the EARMP technical program, fall 2011.

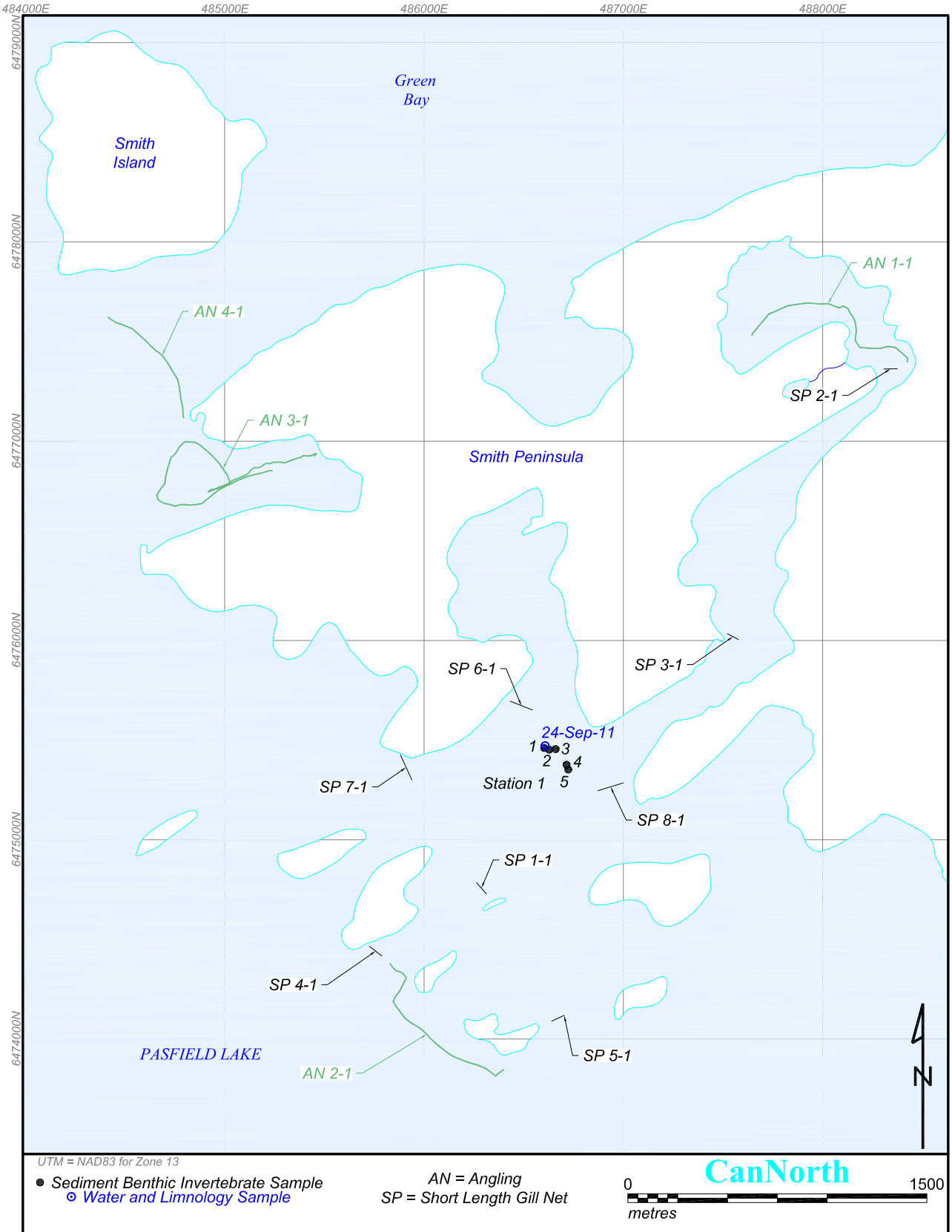

Figure 3.2-7
Sampling locations in Pasfield Lake for the EARMP technical program, fall 2011.

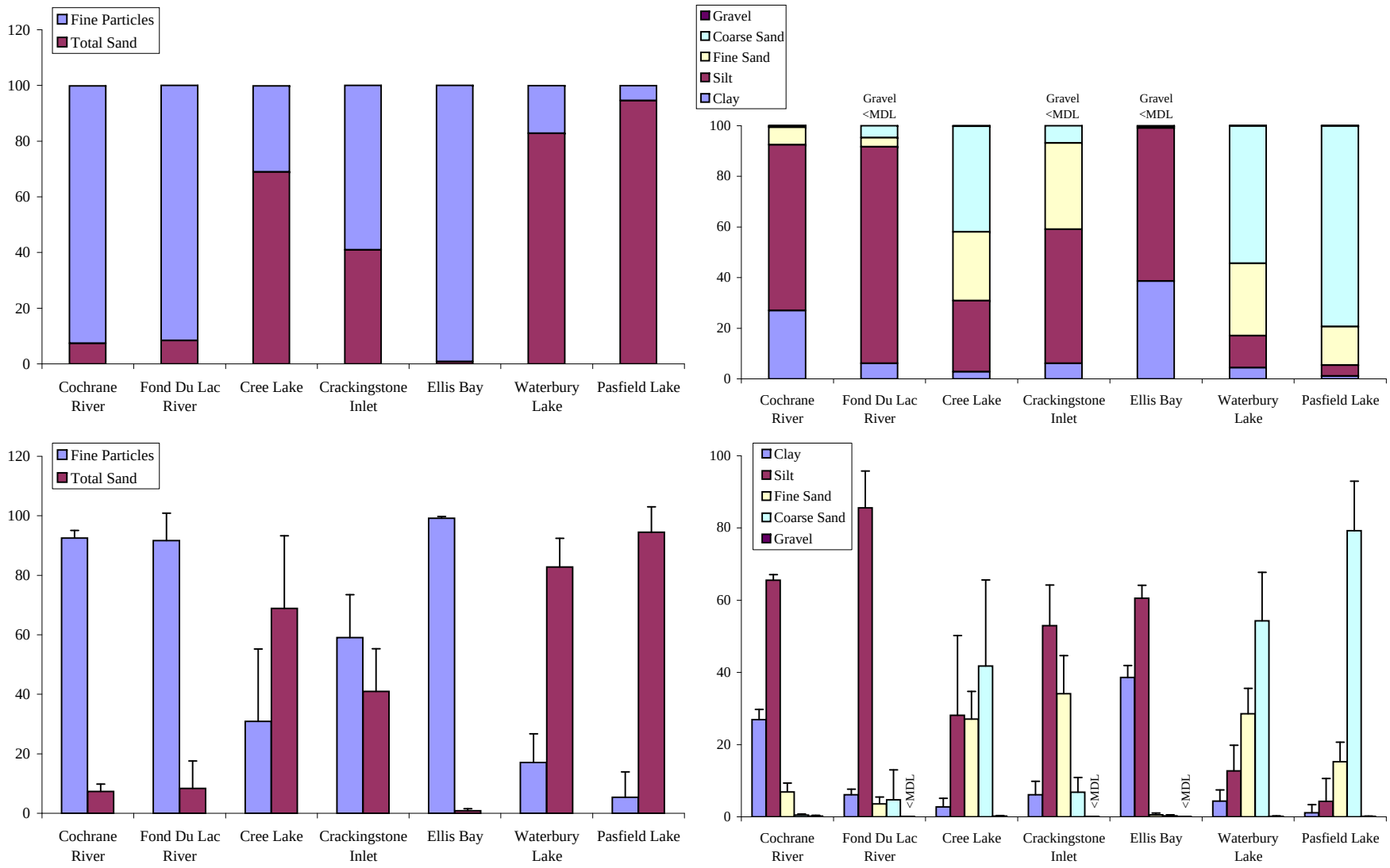

Figure 3.3-1

A summary of the particle size distribution of sediment sampling areas assessed for the EARMP technical program, fall 2011.

Error bars are standard deviations. Particle size fractions annotated with <MDL signify values for all samples were below the method detection limit for a given waterbody.
For average and standard deviation computations, values <MDL were set at the MDL.

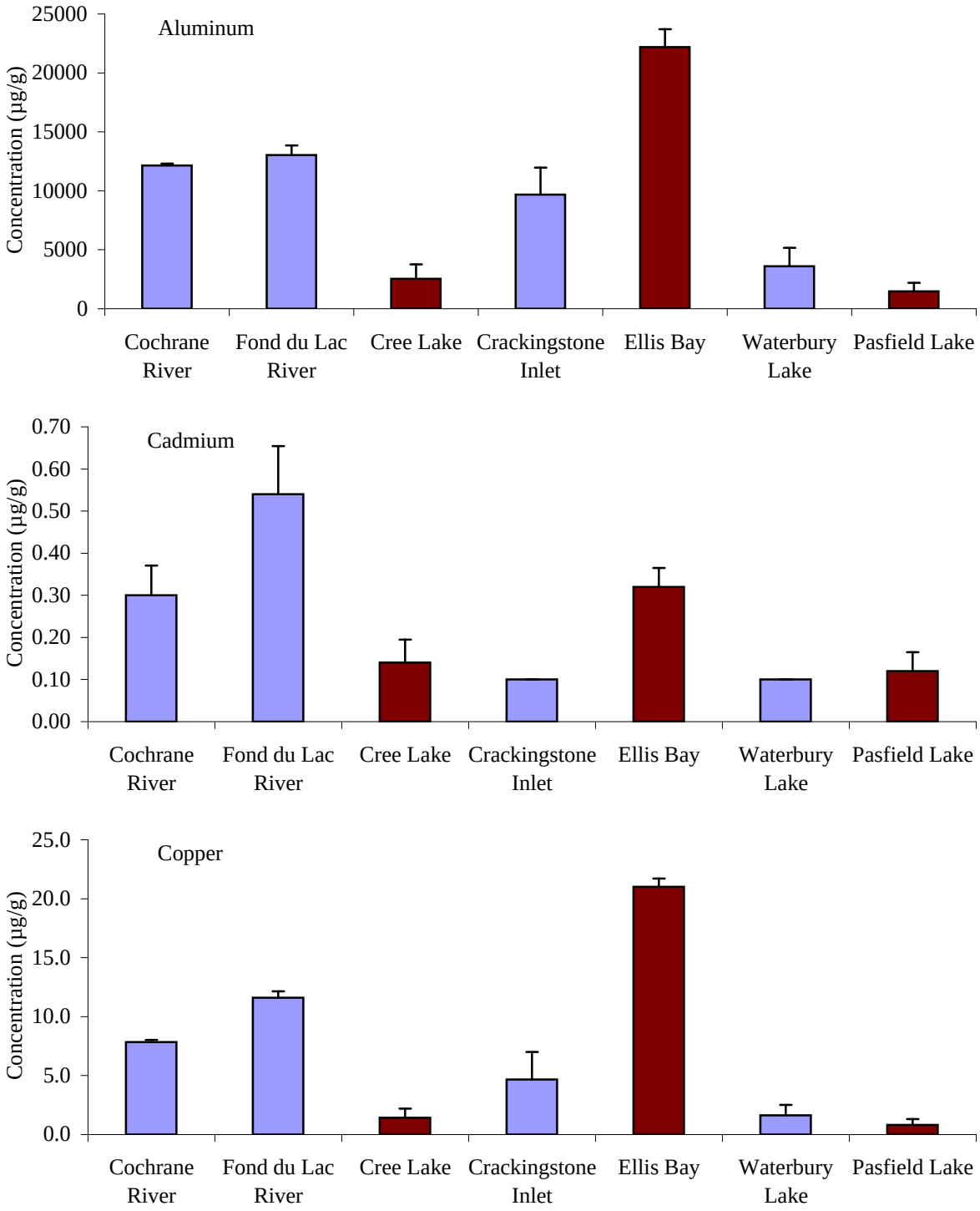

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

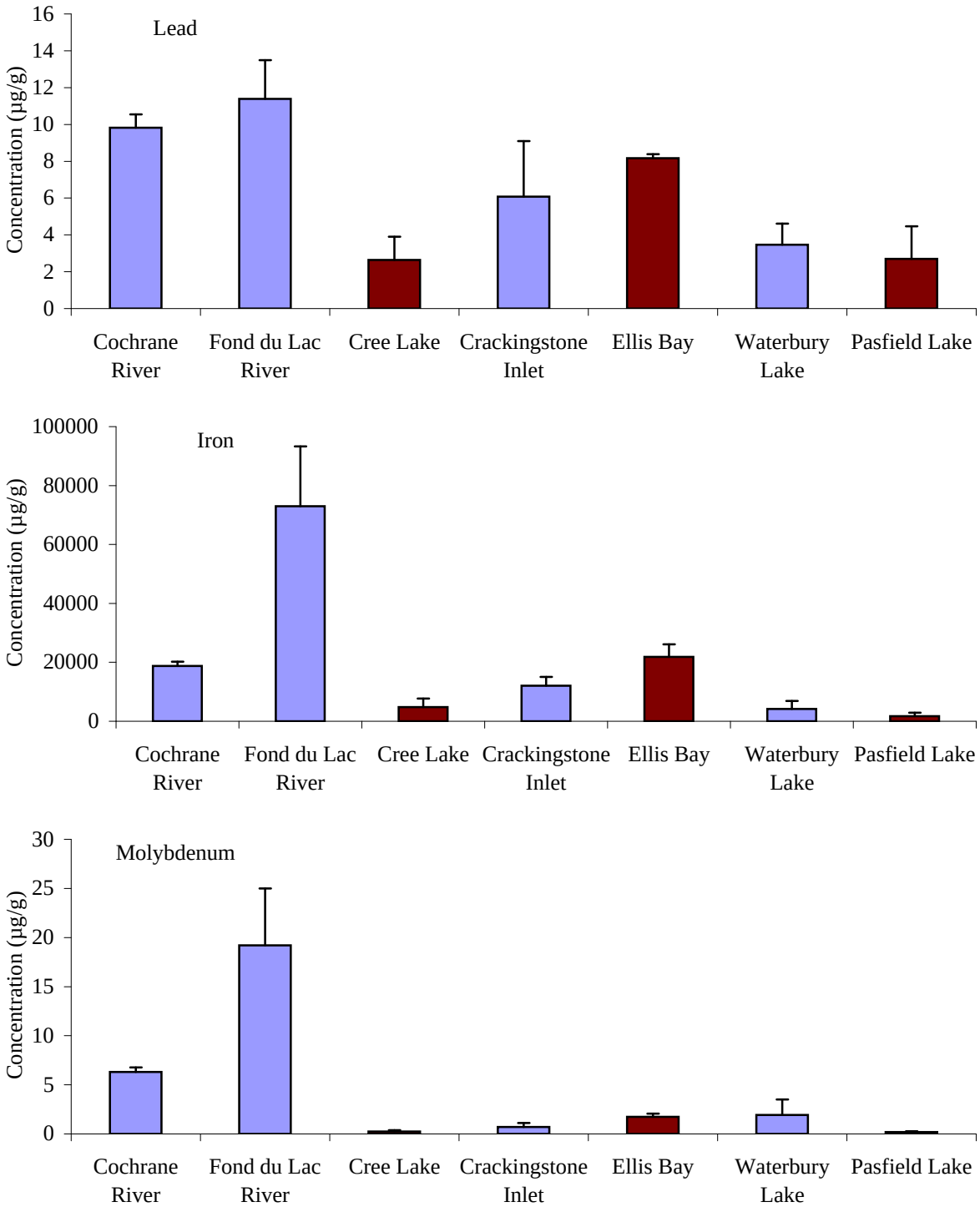

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

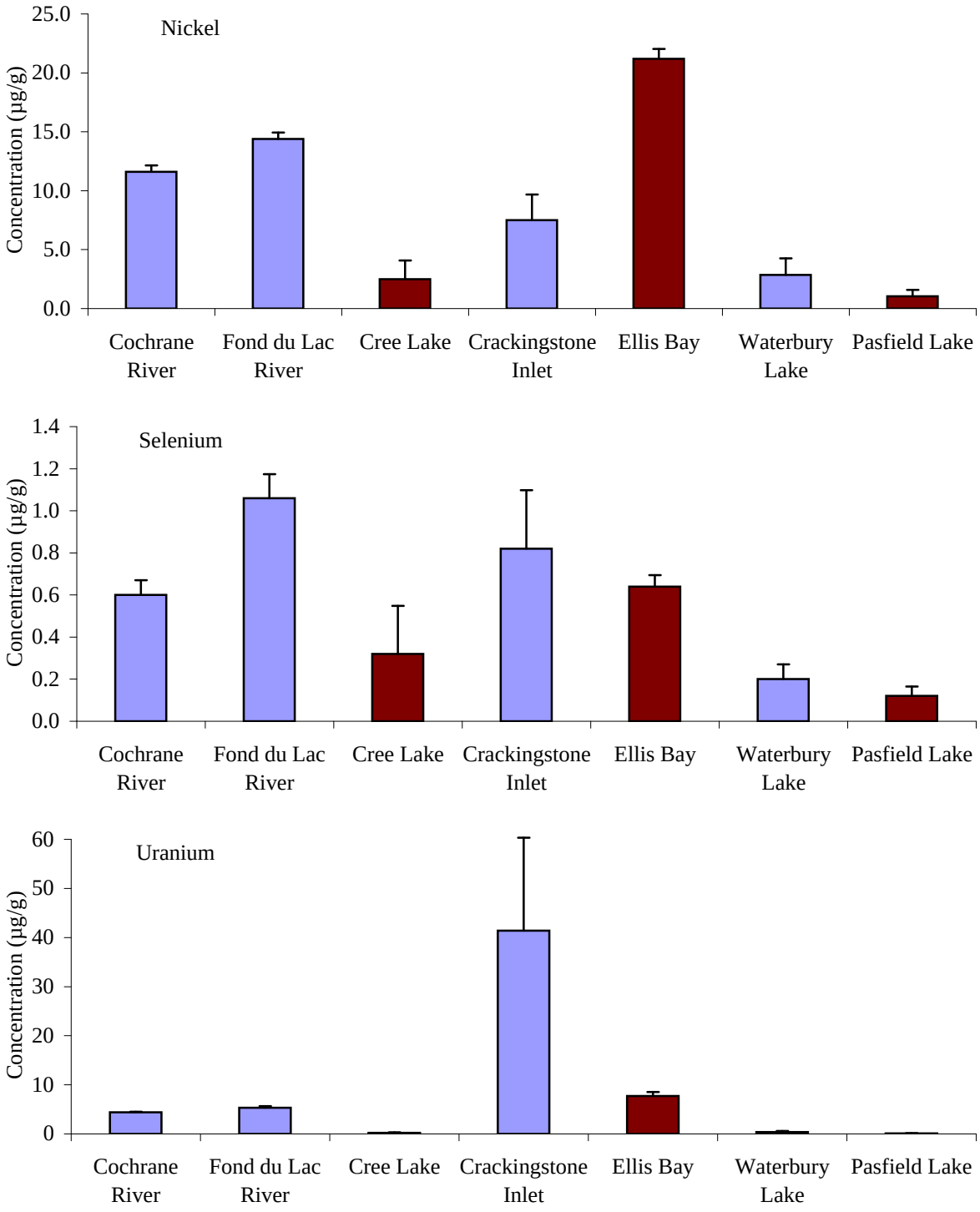

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

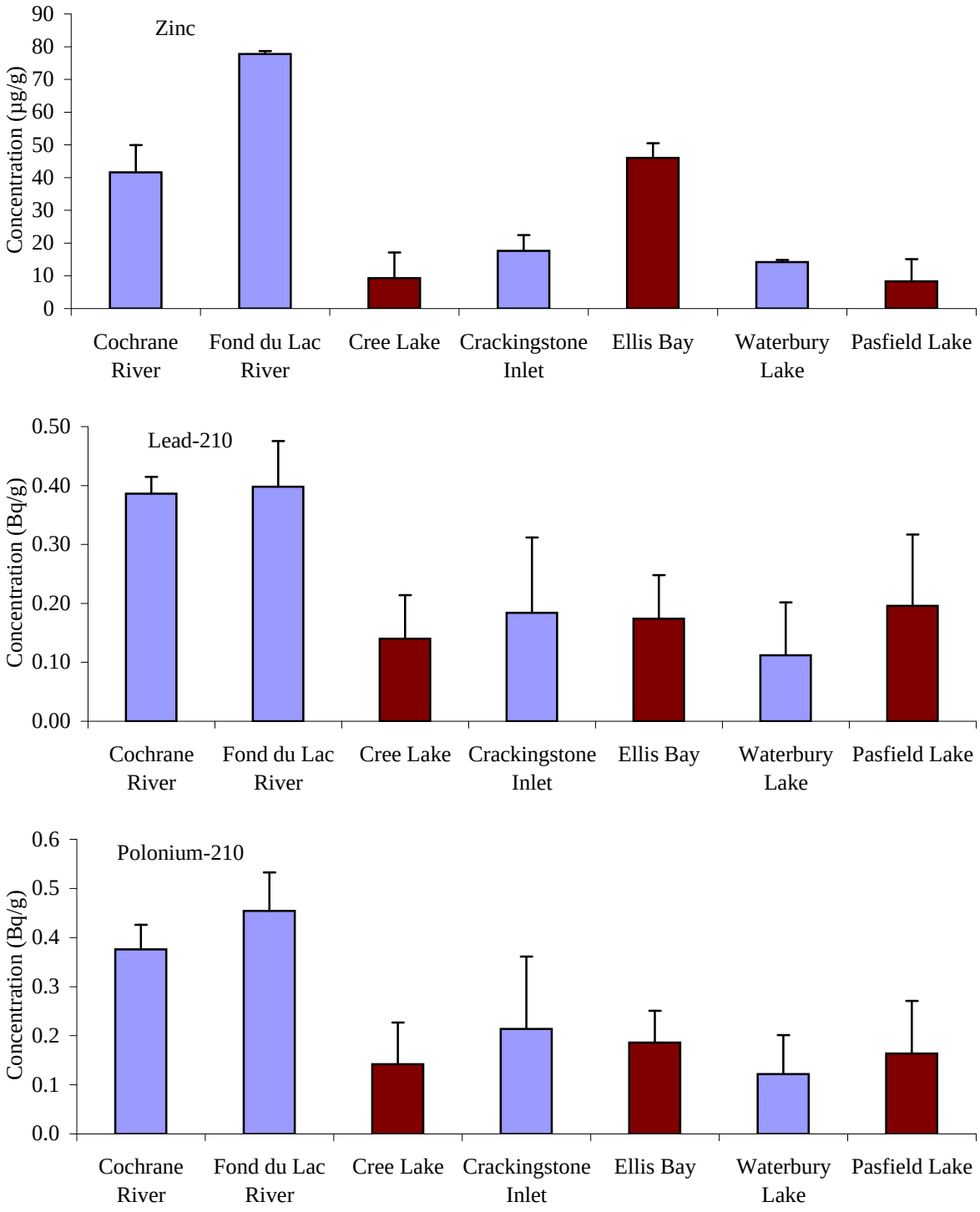

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

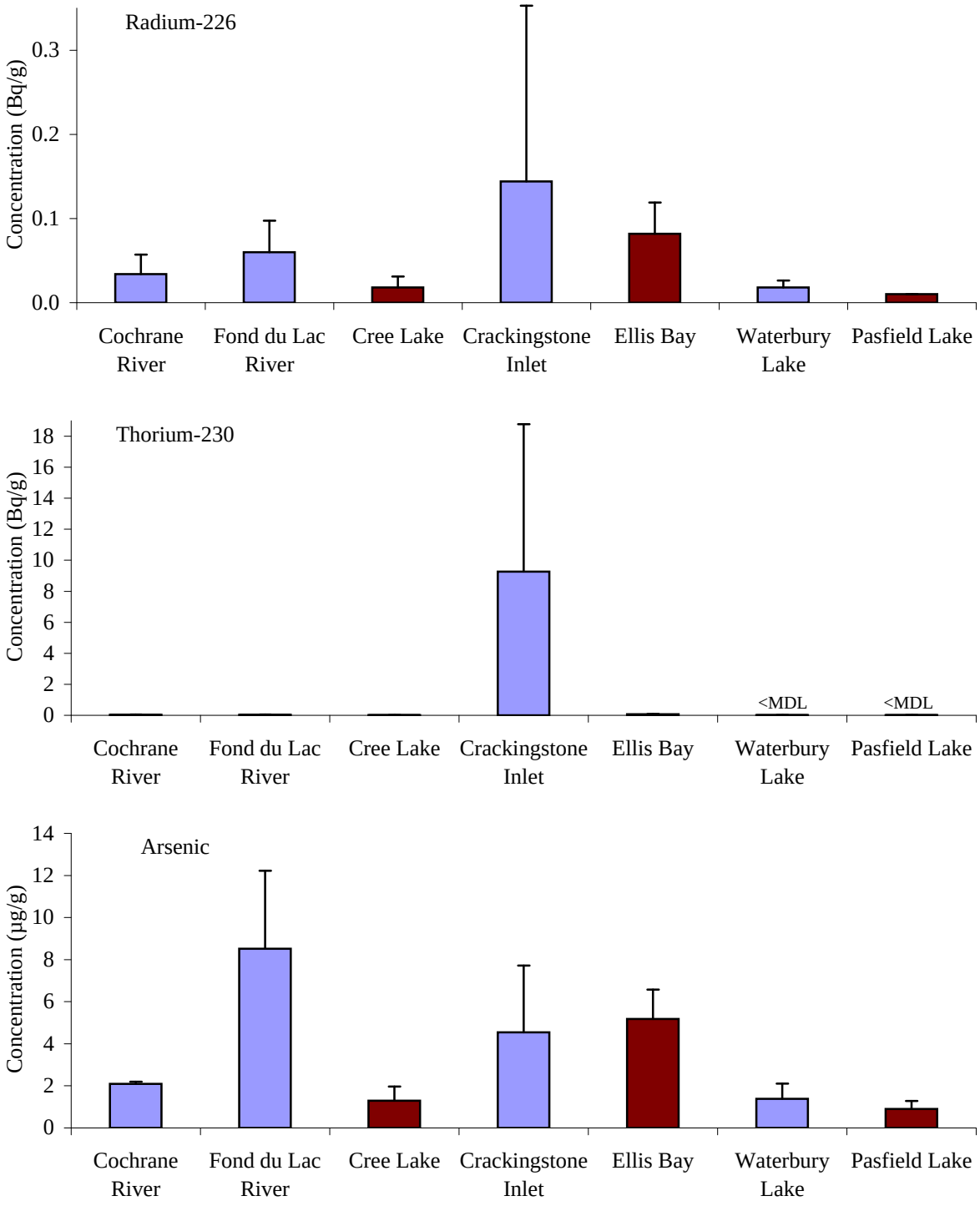

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

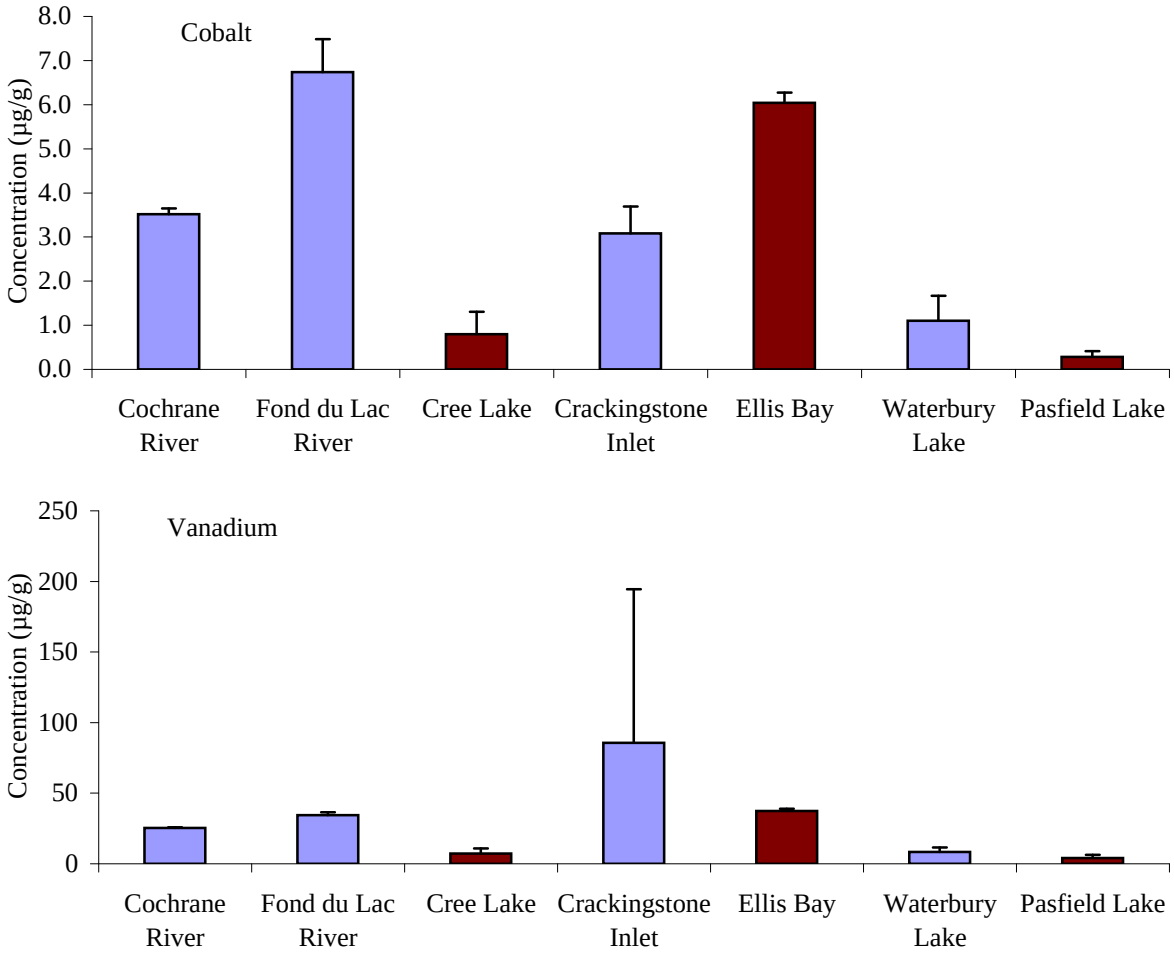

Figure 3.3-2
Average sediment POPC concentrations at the EARMP technical program sampling areas,

Error bars are standard deviations. <MDL signifies all values were inferior to the method detection limit.
For average and standard deviation computations, values <MDL were set at the MDL.

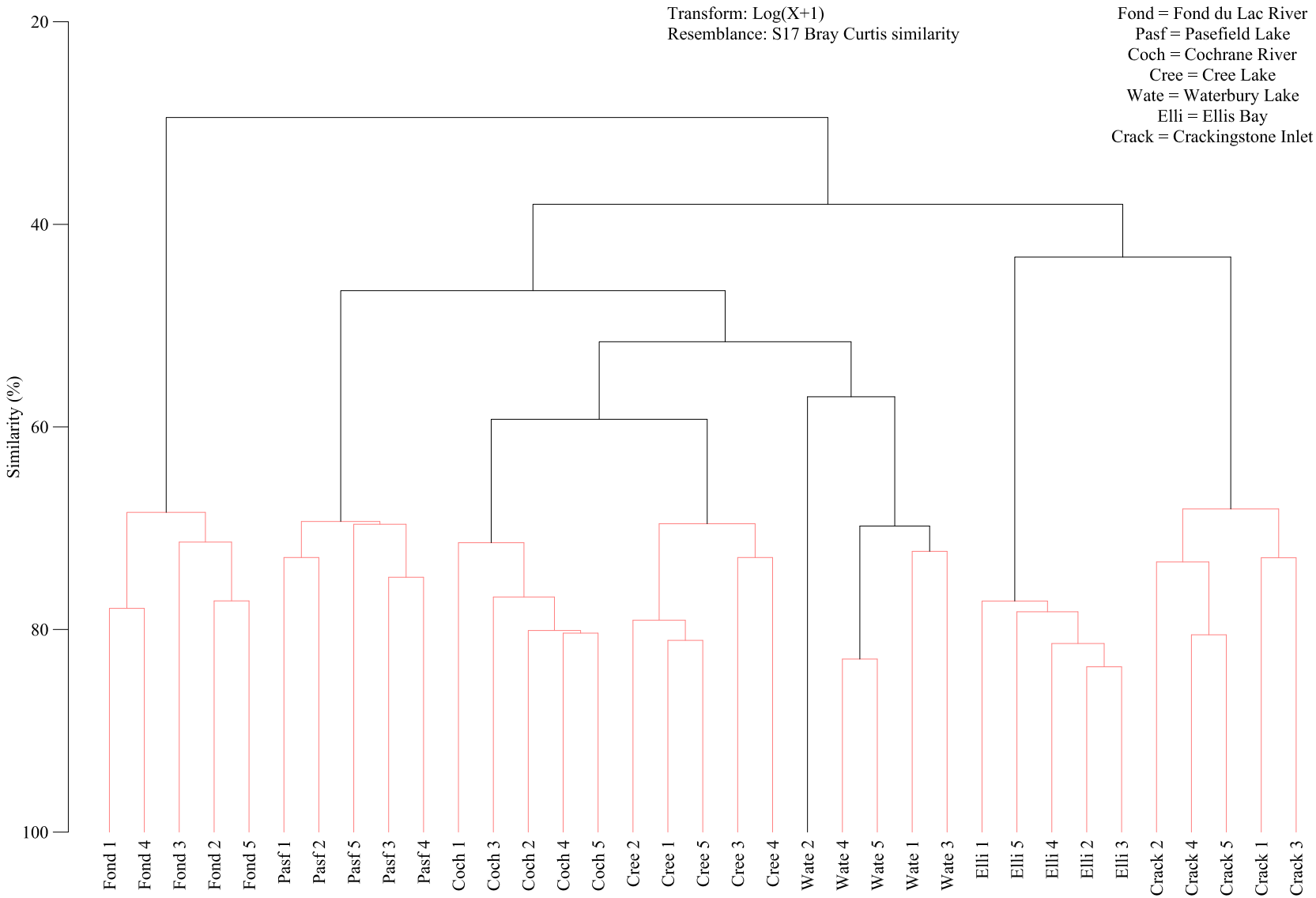

Figure 3.3-3
Benthic invertebrate community dendrogram of cluster analysis similarities between samples.

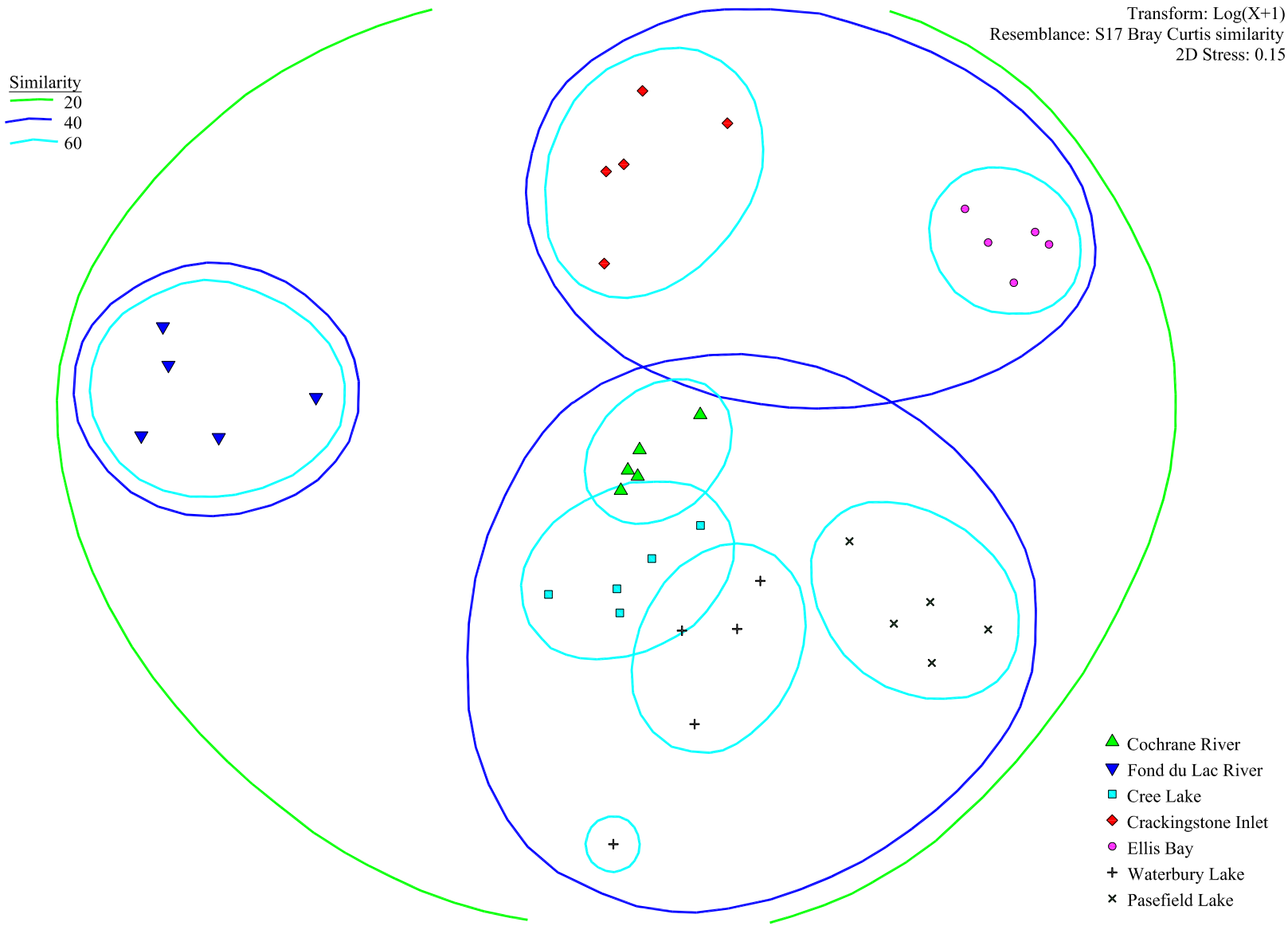

Figure 3.3-4
Non-metric multi dimensional scaling of benthic invertebrate community similarities between samples.

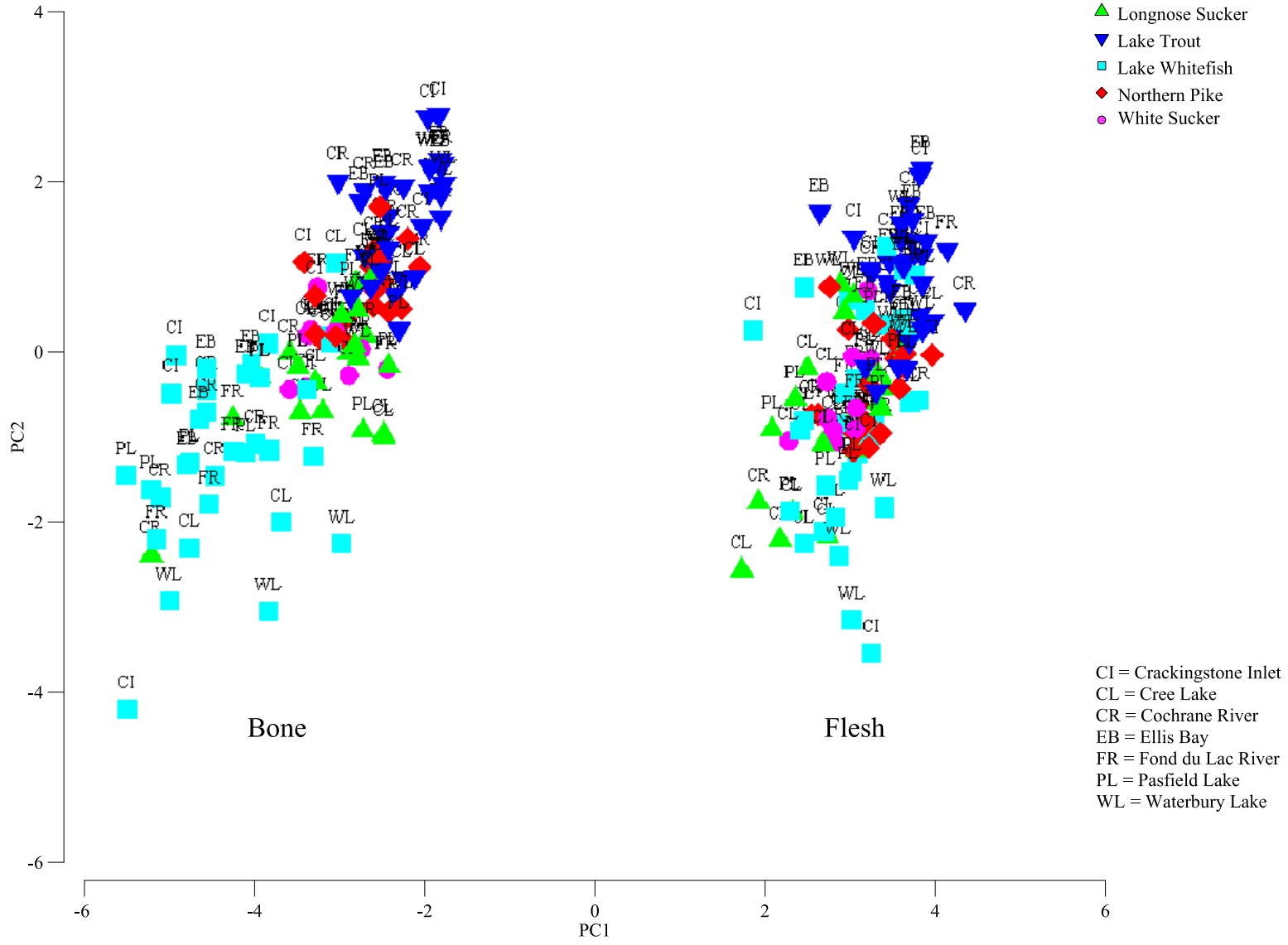

Figure 3.3-5
Principal Component Analysis (PCA) results on flesh and bone chemistry of all fish species in all waterbodies.

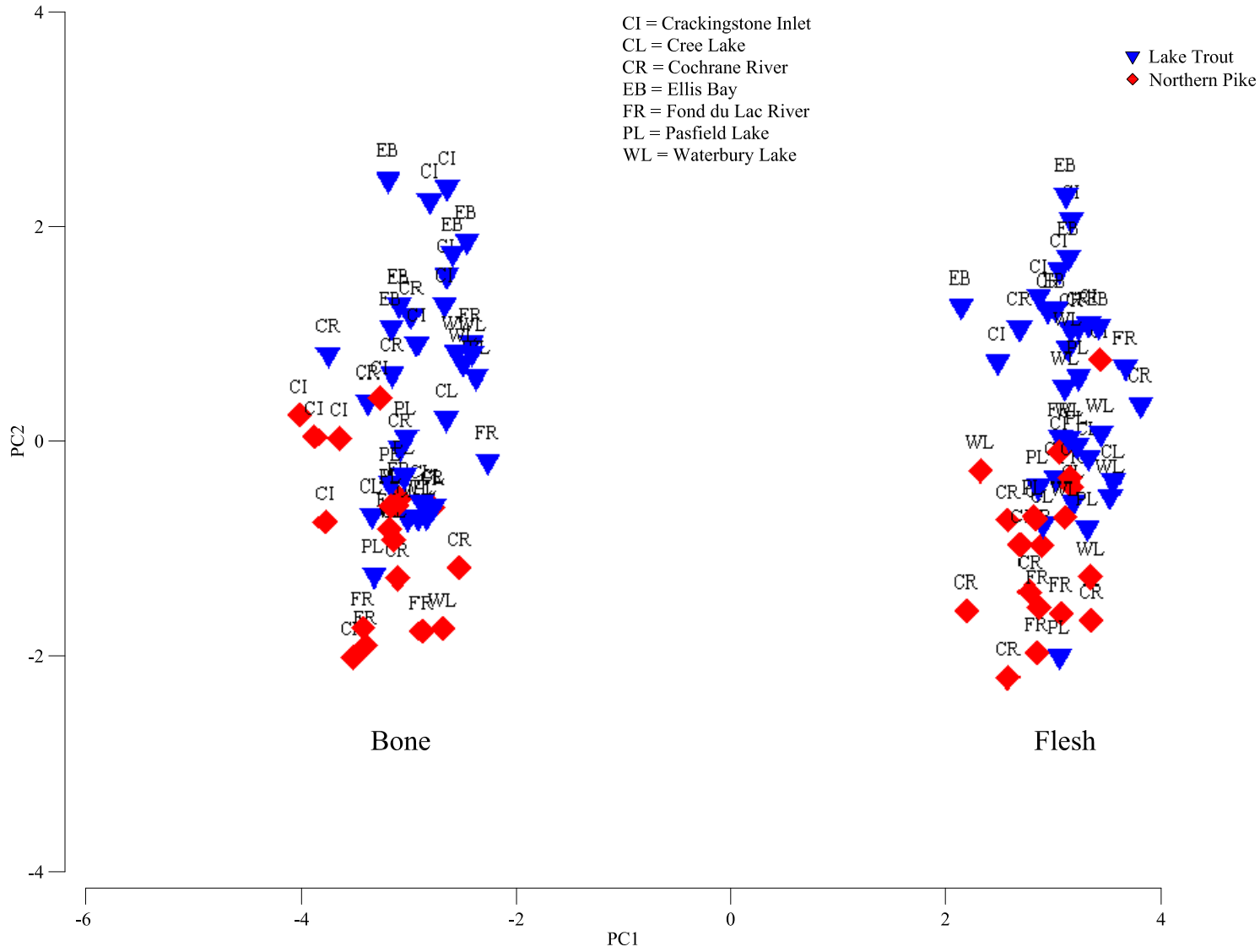

Figure 3.3-6
Principal Component Analysis (PCA) results on flesh and bone chemistry of lake trout and northern pike in all waterbodies.

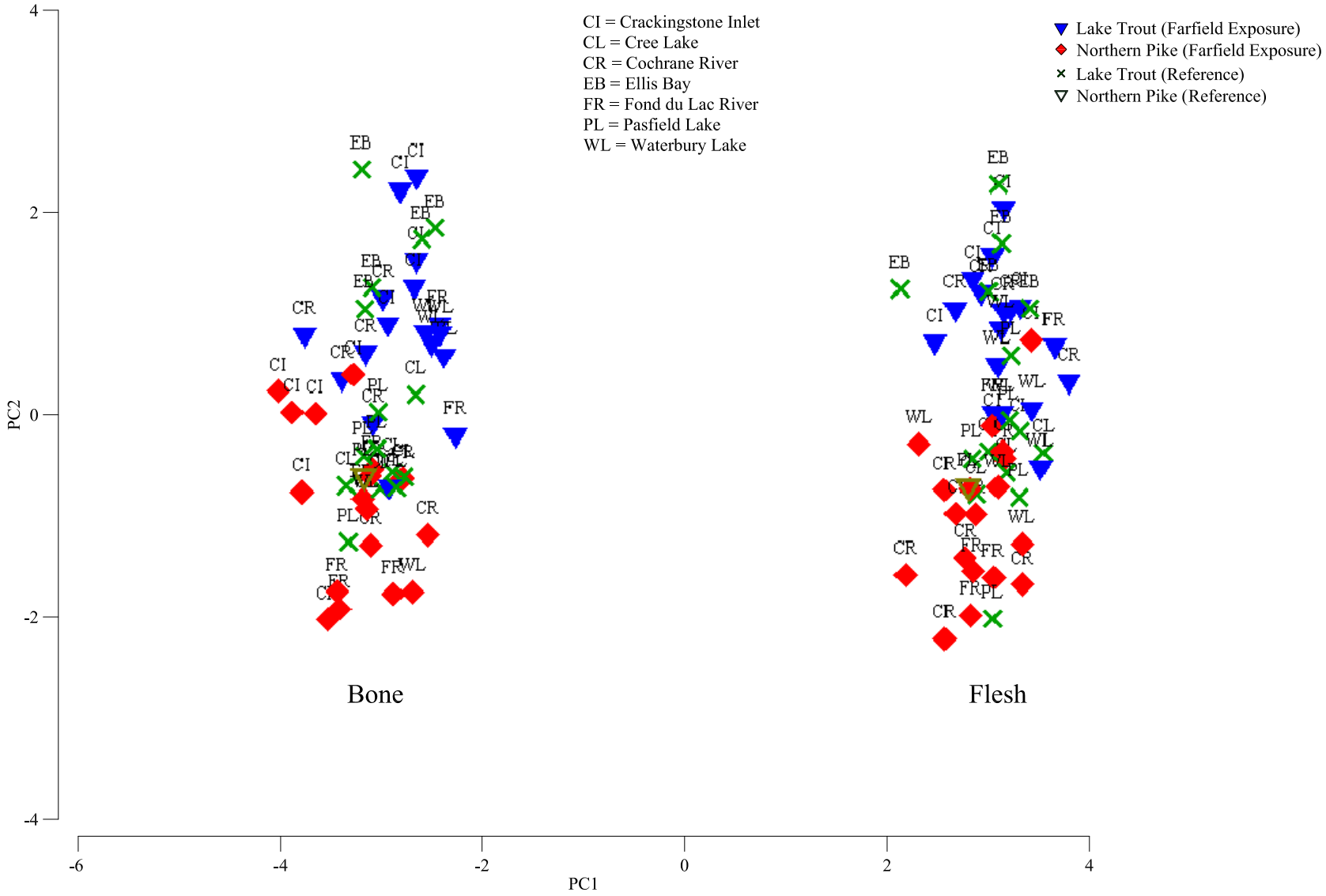

Figure 3.3-7
Principal Component Analysis (PCA) results on flesh and bone chemistry of lake trout and northern pike in all waterbodies, displayed as per reference and farfield exposure areas.

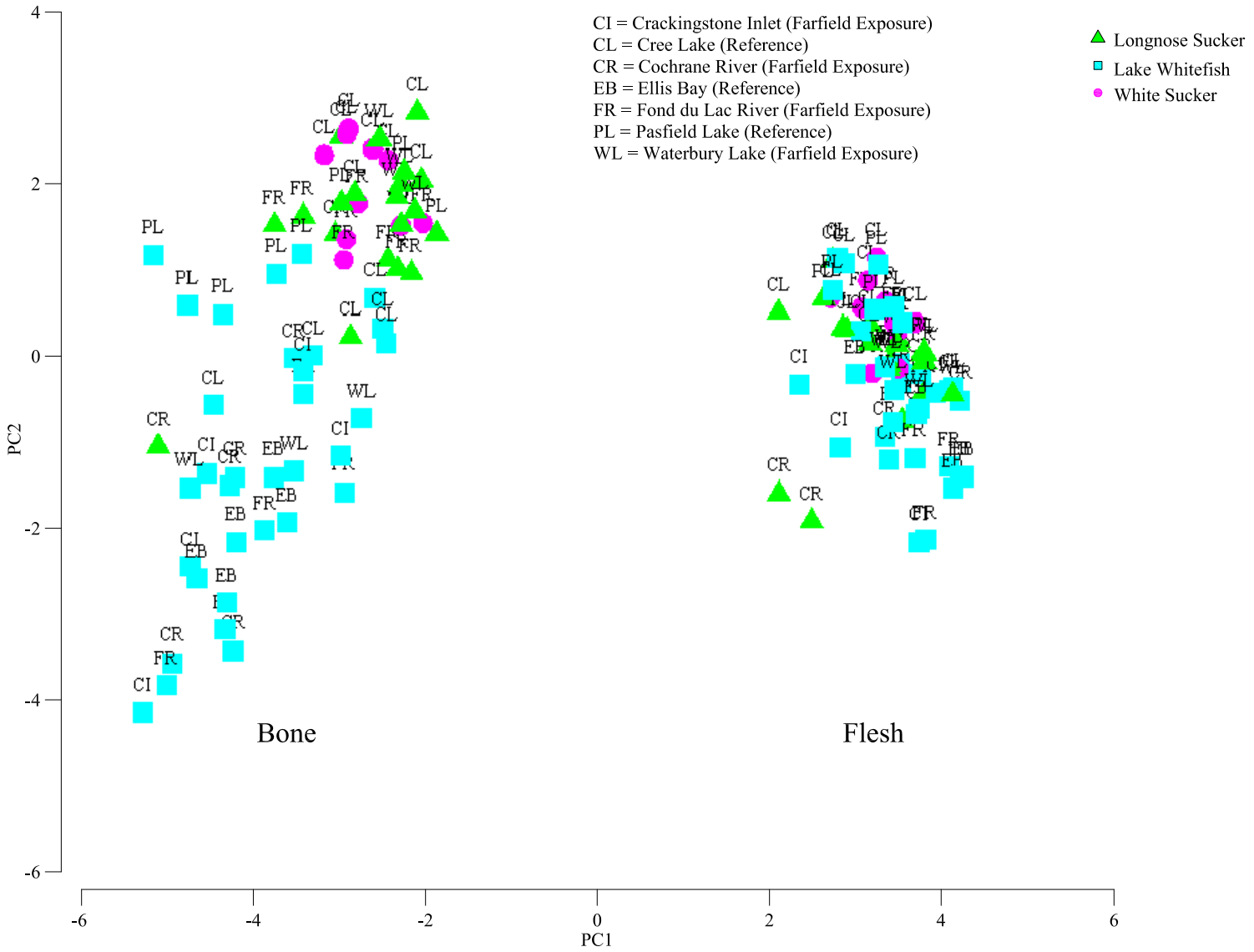

Figure 3.3-8
Principal Component Analysis (PCA) results on flesh and bone chemistry of lake whitefish, longnose sucker, and white sucker in all waterbodies.

TABLES

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TABLE 2.1-3

Media and sample sizes collected for the community program of EARMP, fall 2011.

Medium	Community					
	Black Lake	**Camsell Portage**	**Stony Rapids**	**Uranium City / Crackingstone Inlet**	**Fond du Lac**	**Wollaston Lake/ Hatchet Lake**
Water Chemistry	1	1	1	1	1	1
Lake Whitefish Flesh Chemistry	5	5	5	5	5	5
Lake Trout Flesh Chemistry	5	5	5	5	5	5
Northern Pike Flesh Chemistry	0	0	0	5	0	0
Blueberry Chemistry	5	0	5	0	5	5
Cranberry Chemistry	0	5	0	5	0	0
Barrenland Caribou Meat Chemistry	5	0	0	0	5	5
Moose Meat Chemistry	0	4	0	4	0	0

TABLE 2.3-1

Water chemistry results for the community program of EARMP, fall 2011.

Parameter[1]	Black Lake	Camsell Portage	Fond du Lac	Stony Rapids	Uranium City	Wollaston Lake/ Hatchet Lake	Guidelines		
	Black Lake	Ellis Bay, Lake Athabasca	Fond du Lac River	Fond du Lac River	Fredette River	Welcome Bay, Wollaston Lake	SSWQO[2]	CDWQ[3]	CWQG[4]
Metals									
Aluminum	0.0020	0.0016	0.0140	0.0180	0.0051	0.0047	0.1[5]	0.2	0.1[5]
Cadmium	**0.00001**	0.00001	**0.00002**	**0.00002**	0.00001	**0.00001**	0.000017-0.0001[6]	0.005	0.000006-0.00001[6]
Copper	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002-0.004[6]	≤1.0	0.002[6]
Lead	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001-0.007[6]	0.01	0.001[6]
Iron	0.026	0.0049	0.023	0.074	0.031	0.014	-	≤0.3	300
Mercury (µg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	1	0.026
Molybdenum	0.0002	0.0002	0.0001	0.0002	0.0004	0.0012	-	-	0.073
Nickel	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.025-0.15[6]	-	0.025-0.056[6]
Selenium	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.001	0.01	0.001
Uranium (µg/L)	<0.1	<0.1	<0.1	<0.1	3.5	<0.1	15	20	15
Zinc	0.0018	<0.0005	<0.0005	<0.0005	0.0014	<0.0005	0.03	≤5.0	0.03
Nutrients									
Ammonia as nitrogen	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	-	1.04-10.3[7]
Organic carbon	2.5	2.8	2.7	2.7	7.4	2.5			
Physical Properties									
pH (pH units)	7.12	7.46	7.22	7.30	7.75	7.10	-	6.5-8.5	6.5-9.0
Specific conductivity (µS/cm)	40	66	39	39	114	34			
Total hardness	14	26	14	13	49	13			
Radionuclides									
Lead-210 (Bq/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	-	0.2	-
Polonium-210 (Bq/L)	<0.005	<0.005	<0.005	<0.006	<0.005	<0.005			
Radium-226 (Bq/L)	<0.005	<0.005	<0.005	<0.005	0.008	<0.005	-	0.5	-
Thorium-230 (Bq/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
Trace Elements									
Arsenic (µg/L)	0.1	0.1	0.1	0.2	0.1	<0.1	5	10	5
Cobalt	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001			
Vanadium	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001			

[1]All values are in mg/L, unless specified otherwise.

[2]SSWQO = Saskatchewan surface water quality objectives for the protection of aquatic life (SE 2006).

[3]CDWQ = Guidelines for Canadian drinking water quality (Health Canada 2010).

[4]CWQG = Canadian water quality guidelines for the protection of aquatic life (CCME 2012); values in the table for only long term exposure.

[5]Adjusted according to water pH of each waterbody.

[6]Adjusted according to water hardness of each waterbody.

[7]Adjusted according to water temperature and pH of each waterbody. Water temperature was assumed to be approximately 10°C.

Bolded values indicate concentrations exceeding one or more guidelines.

TABLE 2.3-2

Summary of the community program fish flesh chemistry data collected for EARMP, fall 2011.

Parameter[1]	Black Lake				Uranium City						Camsell Portage				HC (TDS)[3]
	Black Lake				Crackingstone Inlet, Lake Athabasca						Ellis Bay, Lake Athabasca				
	Lake Trout		Lake Whitefish		Lake Trout		Lake Whitefish		Northern Pike		Lake Trout		Lake Whitefish		Supermarket Freshwater Fish
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Metals															
Aluminum	0.5	0[2]	0.5	0	0.58	0.18	0.5	0	0.5	0	0.5	0	0.5	0	0.5
Cadmium	0.002	0	0.002	0	0.002	0	0.0022	0.0004	0.002	0	0.002	0	0.002	0	-
Copper	0.44	0.32	0.18	0.05	0.21	0.05	0.20	0.04	0.22	0.05	0.35	0.17	0.18	0.11	0.33
Iron	3.54	1.74	2.12	0.65	2.96	1.44	2.78	1.46	2.16	0.56	2.54	1.31	1.92	1.03	-
Lead	0.002	0.001	0.002	0	0.002	0	0.002	0	0.002	0	0.002	0	0.002	0	0.001
Mercury	0.39	0.05	0.14	0.05	0.16	0.02	0.04	0.03	0.09	0.04	0.17	0.08	0.04	0.02	-
Molybdenum	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.005
Nickel	0.01	0	0.01	0	0.012	0.004	0.02	0.03	0.02	0.01	0.01	0.01	0.012	0.004	0.850
Selenium	0.13	0.02	0.31	0.04	0.16	0.03	0.77	1.04	0.45	0.13	0.16	0.02	0.25	0.02	0.43
Uranium	0.001	0	0.0012	0.0004	0.001	0	0.007	0.004	0.001	0	0.004	0.006	0.0012	0.0004	0.0003
Zinc	3.6	1.6	4.0	0.6	4.8	2.2	4.5	0.7	6.0	1.6	5.0	3.4	3.3	0.6	4.6
Radionuclides															
Lead-210 (Bq/g)	0.0014	0.0005	0.001	0	0.001	0	0.001	0	0.001	0	0.001	0	0.001	0	0.002
Polonium-210 (Bq/g)	0.0002	0	0.0004	0.0002	0.0002	0	0.0004	0.0003	0.0007	0.0003	0.0002	0	0.0003	0.0001	-
Radium-226 (Bq/g)	0.00006	0.00001	0.00007	0.00001	0.00013	0.00015	0.00012	0.00010	0.00006	0	0.00010	0.00006	0.00014	0.00011	-
Thorium-230 (Bq/g)	0.000098	0.000004	0.000100	0	0.000120	0.000045	0.000200	0.000122	0.000140	0.000089	0.000140	0.000055	0.000140	0.000089	-
Trace Elements															
Arsenic	0.07	0.02	0.29	0.10	0.09	0.03	0.10	0.03	0.06	0.02	0.10	0.02	0.29	0.09	0.44
Cobalt	0.002	0	0.003	0.001	0.002	0.000	0.004	0.003	0.002	0	0.002	0.001	0.003	0.002	0.004
Vanadium	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	-

TABLE 2.3-2

Summary of the community program fish flesh chemistry data collected for EARMP, fall 2011.

Parameter[1]	Fond du Lac				Stony Rapids				Wollaston Lake/Hatchet Lake				HC (TDS)[3]
	Fond du Lac River				Fond du Lac River				Welcome Bay, Wollaston Lake				
	Lake Trout		Lake Whitefish		Lake Trout		Lake Whitefish		Lake Trout		Lake Whitefish		Supermarket Freshwater Fish
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	
Metals													
Aluminum	0.5	0	0.66	0.36	0.5	0	0.5	0	0.5	0	0.5	0	0.5
Cadmium	0.002	0	0.003	0.002	0.002	0	0.002	0	0.002	0	0.002	0	-
Copper	0.29	0.11	0.19	0.06	0.22	0.04	0.22	0.09	0.45	0.14	0.17	0.05	0.33
Iron	2.40	0.58	2.90	1.85	1.58	0.26	2.28	0.70	3.26	1.77	1.90	0.76	-
Lead	0.002	0	0.002	0	0.002	0	0.002	0	0.002	0	0.002	0	0.001
Mercury	0.23	0.08	0.15	0.03	0.43	0.11	0.17	0.13	0.16	0.03	0.06	0.01	-
Molybdenum	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.005
Nickel	0.01	0	0.012	0.004	0.01	0	0.02	0.02	0.012	0.004	0.01	0	0.850
Selenium	0.15	0.02	0.22	0.05	0.12	0.03	0.15	0.07	0.20	0.04	0.38	0.03	0.43
Uranium	0.001	0	0.0016	0.0009	0.001	0	0.001	0	0.001	0	0.001	0	0.0003
Zinc	3.6	0.5	3.5	0.6	3.4	0.8	5.0	1.9	4.5	1.5	4.2	0.8	4.6
Radionuclides													
Lead-210 (Bq/g)	0.001	0	0.001	0	0.001	0	0.001	0	0.001	0	0.001	0	0.002
Polonium-210 (Bq/g)	0.0002	0	0.0002	0	0.00024	0.00009	0.0002	0	0.0002	0	0.0003	0.0001	-
Radium-226 (Bq/g)	0.00006	0	0.000066	0.000009	0.000062	0.000004	0.00008	0.00002	0.00011	0.00010	0.000064	0.000009	-
Thorium-230 (Bq/g)	0.000100	0	0.000120	0.000045	0.000100	0	0.000134	0.000061	0.000100	0	0.000120	0.000045	-
Trace Elements													
Arsenic	0.10	0.05	0.32	0.14	0.06	0.03	0.04	0.02	0.04	0.01	0.16	0.06	0.44
Cobalt	0.002	0	0.006	0.005	0.002	0	0.008	0.003	0.002	0	0.003	0.001	0.004
Vanadium	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	0.02	0	-

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance".

[3]Health Canada (Total Diet Study) 2005-2007 average concentration (Health Canada 2011); data for molybdenum are from 1993-1999; data for lead-210 are from 2009.

S.D. = Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

TABLE 2.3-3

Mercury fish consumption guidelines.

Mercury Rating	Mercury Level and Recommended Consumption Guidelines
0	Indicates mercury levels are below 0.5 parts per million (ppm). No consumption restrictions are in place for fish in this category.
1	Indicates mercury levels are from 0.5 to 1.0 ppm. Consumption should be limited to ~10 meals[1] per year. Consumption should be limited as follows: If fishing the lake one week per year, fish consumption should be limited to 10 meals per week. If fishing the lake two weeks per year, fish consumption should be limited to 5 meals per week. If fishing the lake three weeks per year, fish consumption should be limited to 4 meals per week. If fishing the lake for more than three weeks per year, fish consumption should be limited to 1 meal per week. Children and pregnant women should not eat fish with mercury levels over 0.5 ppm.
2	Indicates mercury levels are from 1.0 to 1.5 ppm. Consumption should be limited to ~7 meals per year. Consumption should be limited as follows: If fishing the lake one week per year, fish consumption should be limited to 7 meals per week. If fishing the lake two weeks per year, fish consumption should be limited to 4 meals per week. If fishing the lake three weeks per year, fish consumption should be limited to 3 meals per week. If fishing the lake for more than three weeks per year, fish consumption should be limited to 1 meal every two weeks.
3	Indicates mercury levels are 1.5 ppm or greater. No fish in this category should be eaten.

[1]1 meal = 0.23 kg (0.5 lb) of fish.

Source: Saskatchewan Environment 2004.

TABLE 2.3-4

Number of community fish samples exceeding the regional reference ranges, fall 2011.

Parameter[1,2]	Black Lake		Uranium City			Camsell Portage		Fond du Lac		Stony Rapids		Wollaston Lake/Hatchet Lake	
	Black Lake		Crackingstone Inlet, Lake Athabasca			Ellis Bay, Lake Athabasca		Fond du Lac River		Fond du Lac River		Welcome Bay, Wollaston Lake	
	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Northern Pike[3]	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout
Metals													
Aluminum													
Cadmium			1					1					
Copper		1											
Iron													
Lead													
Mercury	1	5		3			1		4	2	5		1
Molybdenum													
Nickel			1										
Selenium			1										
Uranium			4				1						
Zinc							1						
Radionuclides													
Lead-210													
Polonium-210													
Radium-226													
Thorium-230			1			1							
Trace Elements													
Arsenic	2			2		3	3	3	2				
Cobalt													
Vanadium													

[1]No regional reference ranges were available for vanadium for all species.

[2]No fish values were greater than the maximum regional reference values for aluminum, iron, lead, molybdenum, lead-210, radium-226, polonium-210, cobalt, and vanadium.

[3]No northern pike values were higher than the maximum regional reference for all POPCs.

n = 5 per species per community.

TABLE 2.3-5

Summary of the community program blueberry chemistry data collected for EARMP, fall 2011.

Parameter[1]	Black Lake		Fond Du Lac		Stony Rapids		Wollaston Lake		HC (TDS)[3]
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Supermarket Berry
Metals									
Aluminum	7.4	1.3	6.7	1.9	20.6	12.1	6.2	1.7	11.7
Cadmium	0.01	0[2]	0.01	0	0.01	0	0.01	0	0.05
Copper	2.9	0.4	3.3	0.5	2.9	0.3	2.6	0.6	2.8
Iron	9.8	1.3	9.6	1.0	18.8	8.8	8.5	2.5	-
Lead	0.04	0.03	0.02	0.01	0.02	0.01	0.02	0.01	0.02
Molybdenum	0.16	0.05	0.36	0.09	0.12	0.04	0.10	0.00	7.5
Nickel	0.56	0.12	0.79	0.11	0.77	0.06	0.52	0.15	0.7
Selenium	0.06	0.01	0.06	0.01	0.05	0	0.05	0	0.03
Uranium	0.010	0	0.012	0.004	0.014	0.005	0.010	0	0.003
Zinc	5.1	0.8	6.6	0.8	5.5	0.6	4.7	1.1	8.9
Physical Properties									
Moisture (%)	86.3	0.8	86.0	1.0	85.4	0.9	84.8	0.4	-
Radionuclides									
Lead-210 (Bq/g)	0.008	0.003	0.008	0.003	0.006	0.003	0.007	0.003	0.01
Polonium-210 (Bq/g)	0.0014	0.0006	0.0020	0.0012	0.0022	0.0004	0.0032	0.0011	-
Radium-226 (Bq/g)	0.0028	0.0011	0.0030	0.0016	0.0024	0.0022	0.0020	0.0022	-
Thorium-230 (Bq/g)	0.002	0	0.002	0	0.002	0	0.002	0	-
Trace Elements									
Arsenic	0.05	0	0.05	0	0.05	0	0.05	0	0.05
Cobalt	0.018	0.018	0.012	0.004	0.024	0.026	0.010	0.000	0.054
Vanadium	0.1	0	0.1	0	0.1	0	0.1	0	-

[1]All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

[2]Standard deviations of 0 signify "no variance between samples", not "a very small variance".

[3]Health Canada (Total Diet Study) 2005-2007 average concentration (Health Canada 2011) converted from reported wet weight basis to dry weight using mean percent moisture of 85.5%; data for molybdenum are from 1993-1999; data for lead-210 are from 2009.

S.D. = Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

TABLE 2.3-6

Summary of the community program bog cranberry chemistry data collected for EARMP, fall 2011.

Parameter[1]	Camsell Portage		Uranium City		HC (TDS)[3]
	Mean	S.D.	Mean	S.D.	Supermarket Berry
Metals					
Aluminum	17.6	1.3	22.0	5.8	11.7
Cadmium	0.01	0[2]	0.01	0	0.05
Copper	4.4	0.5	3.6	1.4	2.8
Iron	10.1	0.5	14.5	3.9	-
Lead	0.012	0.004	0.012	0.004	0.02
Molybdenum	0.1	0.1	0.1	0	7.5
Nickel	0.49	0.10	0.62	0.33	0.7
Selenium	0.05	0	0.05	0	0.03
Uranium	0.012	0.004	0.012	0.004	0.003
Zinc	6.3	0.6	6.8	1.5	8.9
Physical Properties					
Moisture (%)	87.1	0.3	87.5	0.6	-
Radionuclides					
Lead-210 (Bq/g)	0.013	0.006	0.010	0.006	0.01
Polonium-210 (Bq/g)	0.002	0.001	0.005	0.004	-
Radium-226 (Bq/g)	0.004	0.002	0.002	0.003	-
Thorium-230 (Bq/g)	0.002	0	0.002	0	-
Trace Elements					
Arsenic	0.05	0	0.05	0	0.05
Cobalt	0.01	0	0.04	0.05	0.054
Vanadium	0.1	0	0.1	0	-

[1]All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

[2]Standard deviations of 0 signify "no variance between samples", not "a very small variance".

[3]Health Canada (Total Diet Study) 2005-2007 average concentration (Health Canada 2011) converted from reported wet weight basis to dry weight using mean percent moisture of 85.5%; data for molybdenum are from 1993-1999; data for lead-210 are from 2009.

S.D. = Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

TABLE 2.3-7

Regional reference data details for berries.

Berry Species	Area Type	Area	Year	n	Study
Blueberry	Regional Reference	Black Lake[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
		Camsell Portage[1]	2008	1	AWG
			2010	1	AWG
			2011	4	Country Foods
		Fond du Lac[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
		Stony Rapids[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
		Uranium City[1]	2009	1	AWG
			2011	4	Country Foods
		Wollaston Lake[1]	2008	1	AWG
			2009	1	AWG
Cranberry	Regional Reference	Black Lake[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
			2011	1	AWG
		Camsell Portage[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
		Fond du Lac[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
			2011	1	AWG
		Stony Rapids[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
			2011	1	AWG
		Uranium City[1]	2009	1	AWG
			2010	1	AWG
		Wollaston Lake[1]	2008	1	AWG
			2009	1	AWG
			2010	1	AWG
			2011	1	AWG

[1]Data prior to 2008 could not be used because of inconsistent method detection limits compared to 2008 and later.

n = sample size (number of samples).

TABLE 2.3-8

Number of blueberry samples with concentrations below the method detection limit, fall 2011.

Parameter	Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake
Metals				
Aluminum	0	0	0	0
Cadmium	5	5	5	5
Copper	0	0	0	0
Iron	0	0	0	0
Lead	1	2	2	3
Molybdenum	0	0	3	3
Nickel	0	0	0	0
Selenium	3	3	4	4
Uranium	5	3	2	5
Zinc	0	0	0	0
Physical Properties				
Moisture	0	0	0	0
Radionuclides				
Lead-210	0	1	2	0
Polonium-210	1	0	0	0
Radium-226	0	0	1	3
Thorium-230	5	5	5	5
Trace Elements				
Arsenic	5	5	5	5
Cobalt	2	3	0	4
Vanadium	5	5	5	5

Gray cells denote cases with the majority of samples <MDL (≥50% or ≥3 of 5).

TABLE 2.3-9

List of berry parameter concentrations exceeding the regional reference maximum, fall 2011.

Parameter[1,2]	Blueberries				Bog Cranberries	
	Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake[3]	Uranium City	Camsell Portage
Metals						
Aluminum						
Cadmium						
Copper						
Iron						
Lead						
Molybdenum						
Nickel						
Selenium	✓	✓				
Uranium		✓	✓			
Zinc						
Radionuclides						
Lead-210					✓	✓
Polonium-210						
Radium-226						
Thorium-230						
Trace Elements						
Arsenic						
Cobalt	✓		✓		✓	
Vanadium						

[1]No regional reference ranges were available for polonium-210, thorium-230, and vanadium.

[2]Of parameters with regional refrences values no berry POPC concentration exceeded the maximum regional reference values for aluminum, cadmium, copper, iron, lead, molybdenum, nickel, zinc, polonium-210, and radium-226.

[3]No berry POPC concentration exceeded the maximum regional reference values for any of the POPCs in Wollaston Lake.

TABLE 2.3-10

Number of bog cranberry samples with concentrations below the method detection limit, fall 2011.

Parameter	Camsell Portage	Uraninum City
Metals		
Aluminum	0	0
Cadmium	4	5
Copper	0	0
Iron	0	0
Lead	3	0
Molybdenum	1	5
Nickel	0	0
Selenium	5	5
Uranium	2	2
Zinc	0	0
Physical Properties		
Moisture	0	0
Radionuclides		
Lead-210	0	0
Polonium-210	0	0
Radium-226	0	3
Thorium-230	5	5
Trace Elements		
Arsenic	5	5
Cobalt	0	0
Vanadium	5	5

Gray cells denote cases with the majority of samples <MDL (≥50% or ≥3 of 5).

TABLE 2.3-11

Summary of the community program barren-ground caribou meat chemistry data collected for EARMP, winter 2011/2012.

Parameter[1]	Black Lake		Fond du Lac		Wollaston Lake		HC (TDS)[3]
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Supermarket Meat
Metals							
Aluminum	0.5	0[2]	0.5	0	0.5	0	0.4
Cadmium	0.0024	0.0009	0.0026	0.0009	0.0042	0.0025	0.0009
Copper	3.2	0.6	3.1	0.9	3.2	0.5	1.1
Iron	39.0	6.2	37.6	9.6	34.4	7.4	-
Lead	0.006	0.005	0.003	0.003	0.023	0.024	0.004
Molybdenum	0.02	0	0.02	0	0.02	0	0.02
Nickel	0.014	0.005	0.024	0.031	0.010	0	0.43
Selenium	0.19	0.02	0.16	0.01	0.16	0.02	0.32
Uranium	0.001	0	0.001	0	0.001	0	0.0005
Zinc	22.8	6.9	40.4	20.0	28.4	4.9	53.6
Physical Properties							
Moisture (%)	73.7	0.7	73.8	1.8	74.5	0.7	-
Radionuclides							
Lead-210 (Bq/g)	0.001	0	0.001	0	0.001	0	0.002
Polonium-210 (Bq/g)	0.0100	0.0011	0.0068	0.0035	0.0132	0.0023	-
Radium-226 (Bq/g)	0.00006	0	0.000094	0.000064	0.00006	0.000007	-
Thorium-230 (Bq/g)	0.00010	0	0.00016	0.00009	0.00010	0	-
Trace Elements							
Arsenic	0.018	0.004	0.014	0.005	0.014	0.005	0.01
Cobalt	0.004	0.001	0.004	0.002	0.004	0.002	0.024
Vanadium	0.02	0	0.02	0	0.02	0	-

[1]All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

[2]Standard deviations of 0 signify "no variance between samples", not "a very small variance".

[3]Health Canada (Total Diet Study) 2005-2007 average concentration for meat (steak, roast beef, fresh pork, cured pork, veal, and/or lamb) (Health Canada 2011); data for molybdenum are from 1993-1999; data for lead-210 are from 2009.

S.D. = Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

TABLE 2.3-12

Summary of the community program moose meat chemistry data collected for EARMP, winter 2011/2012.

Parameter[1]	Uranium City		Camsell Portage		HC (TDS)[3]
	Mean	S.D.	Mean	S.D.	Supermarket Meat
Metals					
Aluminum	1.0	1.0	2.2	1.5	0.4
Cadmium	0.004	0.001	0.003	0.002	0.0009
Copper	2.2	1.1	1.7	0.3	1.1
Iron	34.8	8.6	25.0	3.3	-
Lead	0.003	0.002	0.010	0.010	0.004
Molybdenum	0.028	0.015	0.020	0[2]	0.02
Nickel	0.015	0.006	0.015	0.006	0.43
Selenium	0.14	0.04	0.12	0.06	0.32
Uranium	0.0013	0.0005	0.0010	0	0.0005
Zinc	44.8	9.2	38.5	10.4	53.6
Physical Properties					
Moisture (%)	73.3	1.0	74.8	0.6	-
Radionuclides					
Lead-210 (Bq/g)	0.0013	0.0005	0.0008	0.0004	0.002
Polonium-210 (Bq/g)	0.0008	0.0010	0.0009	0.0009	-
Radium-226 (Bq/g)	0.00007	0.00002	0.00008	0.00002	-
Thorium-230 (Bq/g)	0.00013	0.00005	0.00013	0.00006	-
Trace Elements					
Arsenic	0.013	0.005	0.010	0	0.01
Cobalt	0.012	0.006	0.014	0.005	0.024
Vanadium	0.03	0.02	0.02	0	-

[1]All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

[2]Standard deviations of 0 signify "no variance between samples", not "a very small variance".

[3]Health Canada (Total Diet Study) 2005-2007 average concentration for meat (steak, roast beef, fresh pork, cured pork, veal, and/or lamb) (Health Canada 2011); data for molybdenum are from 1993-1999; data for lead-210 are from 2009.

S.D. = Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

TABLE 3.1-1

Media and sample sizes for the technical portion of the Eastern Athabasca Regional Monitoring Program, fall 2011.

Medium	Waterbody						
	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake
Limnology	1	1	1	1	1	1	1
Water Chemistry	1	1[1]	1	1	1	1	1
Sediment Particle Size	5	5	5	5	5	5	5
Sediment Chemistry	5[2]	5	5	5[2]	5[2]	5[2]	5
Benthic Invertebrate Communities	5	5	5	5	5	5	5
Lake Whitefish Flesh and Bone Chemistry	5	3	5	5	5	5	5
Lake Trout Flesh and Bone Chemistry	5	5	5	5	5	2	5
Northern Pike Flesh and Bone Chemistry	1	3	0	5	0	5	5
Longnose Sucker Flesh and Bone Chemistry	3	5	0	0	5	5	3
White Sucker Flesh and Bone Chemistry	0	0	0	0	5	5	0

[1]This sample was collected in duplicates for quality assurance/quality control (QA/QC) purposes.

[2]One of the five samples was collected in duplicates for QA/QC purposes.

TABLE 3.3-1

Water limnology results for the technical program of the Eastern Athabasca Regional Monitoring Program (EARMP) 2011.

Parameter	Depth (m)	Exposure		Reference	Exposure	Reference	Exposure	Reference	Guidelines	
		Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake[1]	SSWQO[2]	CWQG[3]
		26-Sep-11	26-Oct-11	28-Sep-11	02-Oct-11	04-Oct-11	22-Sep-11	24-Sep-11		
Temperature (°C)	0	12.5	3.4	12.5	11.1	10.6	12.2	11.6	-	-
	1	12.5	3.4	12.5	11.1	10.6	12.2	11.6		
	2	12.4	3.4	12.5	11.1	10.6	12.2	11.5		
	3	12.5	3.4	12.5	11.1	10.6	12.2	11.5		
	4	12.3	3.4	12.5	11.1	10.6	12.2	11.5		
	5	12.3	3.4	12.5	11.0	10.6	12.2	11.5		
	6	12.2	3.4	12.5	11.0	10.6	12.2	11.5		
	7	12.1	3.5	12.5	9.8	10.4	12.2	11.5		
Dissolved Oxygen (mg/L)	0	9.33	12.66	9.76	10.60	9.55	9.34	10.18	6.5-9.5[4]	6.5-9.5[4]
	1	9.23	12.58	9.55	10.31	9.18	9.68	9.89		
	2	9.01	12.48	9.56	10.45	9.22	9.62	9.82		
	3	8.91	11.25	9.77	10.53	9.41	10.54	9.92		
	4	8.90	11.01	9.53	10.25	9.50	9.92	9.82		
	5	8.84	11.19	9.39	10.15	9.03	9.76	10.18		
	6	8.84	11.56	9.30	10.09	10.30	9.64	10.03		
	7	9.18	12.72	9.31	10.01	11.33	9.62	10.11		
Specific Conductance (µS/L)	0	32	31.8	19.3	62.9	60.1	21.4	17.3	-	-
	1	31.9	31.8	19.2	62.8	60.1	21.4	17.4		
	2	32.1	31.8	19.1	62.9	60.1	21.4	17.4		
	3	32.1	31.8	19.1	62.9	60.3	21.4	17.4		
	4	32.1	31.9	19.1	62.9	60.1	21.4	17.3		
	5	32.2	31.8	19.1	63	60.5	21.4	17.3		
	6	32.2	31.8	19.1	63.1	60.5	21.4	17.3		
	7	32.2	31.9	19.2	65.3	60.6	21.4	17.3		
pH	0	8.10	8.47	8.20	8.09	8.10	8.34	8.46	-	6.5-9.0
	1	7.89	8.31	8.21	8.20	8.12	8.12	8.25		
	2	7.81	8.22	8.11	8.15	8.11	8.00	8.01		
	3	7.73	8.10	8.19	8.11	7.98	7.92	7.85		
	4	7.64	8.02	7.92	8.08	7.91	7.84	7.76		
	5	7.59	8.01	7.89	8.08	7.88	7.72	7.66		
	6	7.55	8.00	7.76	7.97	7.76	7.67	7.62		
	7	7.50	7.83	7.67	7.93	7.78	7.63	7.52		
Secchi Depth (m)		5.3	4.1	4.8	4.2	5.8	4.5	6.7	-	-
Max. Depth (m)		7.3	7.6	7.4	7.8	7.2	7.1	6.7		

[1]The deepest limnological measurements in Pasfield Lake were taken at 6.5 m rather than at 7.0 m depth.

[2]Saskatchewan surface water quality objectives for the protection of freshwater aquatic life (SE 2006)

[3]Canadian water quality guidelines for the protection of freshwater aquatic life (CCME 2012).

[4]9.5 mg/L for cold water biota in early life stages, 6.5 mg/L for cold water biota in other life stages.

TABLE 3.3-2

Water chemistry results for the technical program of the Eastern Athabasca Regional Monitoring Program (EARMP) 2011.

Parameter of Potential Concern[1]	Exposure		Reference	Exposure	Reference	Exposure	Reference	Guidelines	
	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	SSWQO[2]	CWQG[3]
	26-Sep-11	26-Oct-11	28-Sep-11	02-Oct-11	04-Oct-11	22-Sep-11	24-Sep-11		
Metals									
Aluminum	0.0052	0.0120	0.0024	0.0120	0.0023	0.0009	<0.0005	0.1[4]	0.1[4]
Cadmium	**<0.00001**	**0.00001**	**<0.00001**	<0.00001	**0.00002**	**0.00001**	**<0.00001**	0.000017[5]	0.000003-0.000011[5]
Copper	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	0.002[5]	0.002[5]
Iron	0.025	0.030	0.025	0.020	0.007	0.012	0.003	-	0.3
Lead	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001[5]	0.001[5]
Mercury (µg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	0.026
Molybdenum	0.0013	0.0012	<0.0001	0.0002	0.0002	0.0016	<0.0001	-	0.073
Nickel	<0.0001	<0.0001	<0.0001	0.0002	0.0002	0.0001	<0.0001	0.025[5]	0.025-0.035[5]
Selenium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001	0.001
Uranium (µg/L)	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1	15	15
Zinc	0.0078	<0.0005	0.0010	<0.0005	<0.0005	0.0007	0.0170	0.03	0.03
Nutrients									
Ammonia as nitrogen	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.7-10.3[6]
Organic carbon	2.4	2.9	1.8	2.8	2.8	1.8	0.7		
Physical Properties									
pH (pH units)	7.12	7.18	6.96	7.46	7.44	6.97	6.87	-	6.5-9.0
Specific conductivity (µS/cm)	35	36	21	68	66	23	19		
Total hardness	13	12	7	27	26	7	5		
Radionuclides									
Lead-210 (Bq/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Polonium-210 (Bq/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Radium-226 (Bq/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
Thorium-230 (Bq/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Trace Elements									
Arsenic (µg/L)	0.1	<0.1	0.1	0.2	0.1	0.1	<0.1	5	5
Cobalt	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Vanadium	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001		

[1]All values are in mg/L, unless specified otherwise.

[2]Saskatchewan surface water quality objectives for the protection of freshwater aquatic life (SE 2006)

[3]Canadian water quality guidelines for the protection of freshwater aquatic life (CCME 2012).

[4]Adjusted according to water pH of each waterbody.

[5]Adjusted according to water hardness of each waterbody.

TABLE 3.3-3

Summary of the sediment particle size fractions and physical properties spatial comparisons, fall 2011.

Analyte	Cochrane River versus Cree Lake			Fond du Lac River versus Cree Lake			Crackingstone Inlet versus Ellis Bay			Waterbury Lake versus Pasfield Lake		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Clay	220.3	**<0.001**	>	6.8	**0.031**	>	213.2	**<0.001**	<	4.0[2]	0.076	
Silt	25.0[2]	**0.009**	>	<0.1[2]	**0.009**	>	6.0[2]	0.175		7.3	**0.027**	>
Fine Particles	25.0[2]	**0.009**	>	<0.1[2]	**0.009**	>	<0.1[2]	**0.009**	<	8.1	**0.022**	>
Fine Sand	40.7	**<0.001**	<	52.0	**<0.001**	<	124.2	**<0.001**	>	12.2	**0.008**	>
Coarse Sand	140.9	**<0.001**	<	24.0[2]	**0.016**	<	32.9	**<0.001**	>	7.5	**0.026**	<
Total Sand	85.4	**<0.001**	<	30.7	**0.001**	<	89.3	**<0.001**	>	22.0[2]	**0.047**	<
Gravel	0.1	0.799		20.0[2]	0.054		-[4]	-[4]		<0.1	0.917	
Moisture	19.0[2]	0.175		-[3]	-[3]	-[3]	14.7	**0.005**	<	2.6	0.146	
Organic Carbon	20.0[2]	0.117		14.2	**0.005**	>	80.0	**<0.001**	<	5.0[2]	0.117	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]Kruskal-Wallis test used instead of ANOVA.

[3]Moisture was not available for the Fond du Lac River samples.

[4]All values measured below the laboratory method detection limit.

Bold: values signigicant at α=0.050; shaded values indicate higher levels in the exposure as compared to the reference..

TABLE 3.3-4

Correlation results of the effects of each sediment particle size and organic carbon contents on the 17 parameter concentrations in sediment.

Number of Variables	Correlation	Variables
1	0.752	Total Fine Particles
1	0.746	Coarse Sand
1	0.723	Silt
1	0.595	Total Sand
1	0.506	Clay
1	0.483	Organic Carbon
1	0.358	Fine Sand
1	0.058	Gravel

TABLE 3.3-5

Summary of the sediment chemistry results from the EARMP technical program, fall 2011.

Parameter of Potential Concern[1]	Cochrane River		Fond du Lac River		Cree Lake		Crackingstone Inlet		Ellis Bay		Waterbury Lake		Pasfield Lake		Pooled References		CCME[2]		LEL[5]
	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	ISQG[3]	PEL[4]	
Metals																			
Aluminum	12160	152	13040	802	2540	1228	9680	2297	22180	1532	3600	1572	1464	731	8728	9920			
Cadmium	0.30	0.07	0.54	0.11	0.14	0.05	0.10	0[6]	0.32	0.04	0.10	0	0.12	0.04	0.23	0.10	0.6	3.5	-
Copper	7.8	0.2	11.6	0.5	1.4	0.8	4.7	2.3	21.0	0.7	1.6	0.9	0.8	0.5	8.9	10.0	35.7	197	22.2
Iron	18780	1467	73000	20271	4780	2882	12080	2937	21880	4194	4140	2747	1752	1116	9471	9586			
Lead	9.8	0.7	11.4	2.1	2.6	1.3	6.1	3.0	8.2	0.2	3.5	1.1	2.7	1.8	4.5	2.9	35	91.3	36.7
Molybdenum	6.3	0.5	19.2	5.8	0.2	0.1	0.7	0.4	1.7	0.3	1.9	1.6	0.2	0.1	0.8	0.8	-	-	13.8
Nickel	11.6	0.5	14.4	0.5	2.5	1.6	7.5	2.2	21.2	0.8	2.9	1.4	1.0	0.5	8.2	9.6	-	-	23.4
Selenium	0.60	0.07	1.06	0.11	0.32	0.23	0.82	0.28	0.64	0.05	0.20	0.07	0.12	0.04	0.49	0.21	-	-	1.9
Uranium	4.38	0.15	5.32	0.33	0.22	0.11	41.40	18.93	7.74	0.81	0.38	0.20	0.12	0.04	3.34	3.91	-	-	104.4
Zinc	41.6	0.9	77.8	7.8	9.3	4.8	17.6	4.5	46.0	0.7	14.2	6.7	8.3	4.4	21.2	18.5	123	315	-
Physical Properties																			
Loss on ignition (%)	16.2	0.9	23.3	1.5	7.6	4.7	2.8	1.1	12.4	3.0	6.5	4.0	5.7	3.8	8.6	4.7			
Moisture (%)	91.6	0.7	90.5	0.8	78.0	16.5	47.8	12.8	84.3	2.9	80.6	4.6	68.2	9.3	76.8	12.3			
Radionuclides																			
Lead-210 (Bq/g)	0.39	0.03	0.40	0.08	0.14	0.07	0.18	0.13	0.17	0.07	0.11	0.09	0.20	0.12	0.17	0.09	-	-	0.9
Polonium-210 (Bq/g)	0.38	0.05	0.45	0.08	0.14	0.08	0.21	0.15	0.19	0.06	0.12	0.08	0.16	0.11	0.16	0.08	-	-	0.8
Radium-226 (Bq/g)	0.03	0.02	0.06	0.04	0.02	0.01	0.14	0.21	0.08	0.04	0.02	0.01	0.01	0	0.05	0.04	-	-	0.6
Thorium-230 (Bq/g)	0.03	0.01	0.04	0.01	0.02	0	9.26	9.52	0.07	0.02	0.02	0	0.02	0	0.06	0.03			
Trace Elements																			
Arsenic	2.10	0.10	8.52	3.71	1.30	0.67	4.54	3.18	5.18	1.39	1.38	0.73	0.90	0.38	2.46	2.17	5.9	17	9.8
Cobalt	3.5	0.1	6.7	0.7	0.8	0.5	3.1	0.6	6.0	0.2	1.1	0.6	0.3	0.1	2.7	2.8			
Vanadium	25.4	0.5	34.4	2.2	7.1	3.8	85.6	109.0	37.4	1.7	8.4	3.1	4.2	2.1	16.2	15.7	-	-	35.2

[1]All concentrations and activity levels are presented in µg/g on a dry weight basis, except when specified otherwise.

[2]Canadian Sediment Quality Guidelines for the protection of freshwater aquatic life (CCME 2012).

[3]ISQG = Interim freshwater sediment quality guideline (dry weight).

[4]PEL = Probable effects level (dry weight).

[5]LEL = Lowest effect level (dry weight) (Thompson et al. 2005).

[6]0 signifies no variation, not a very small value.

All values < MDL were set equal to the MDL for the calculation of means and standard deviations.

S.D.=standard deviation.

Gray cells indicate concentrations exceeding one or more available guideline.

TABLE 3.3-6

Summary of the sediment chemistry spatial comparisons, fall 2011.

Parameter of Potential Concern[1]	Cochrane River versus Pooled References			Fond du Lac River versus Pooled References			Crackingstone Inlet versus Pooled References			Waterbury Lake versus Pooled References		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	25.0[2]	0.275		25.0[2]	0.275		25.0[2]	0.275		36.0[2]	0.896	
Cadmium	4.5	**0.047**	>	40.3	**<0.001**	>	57.5[2]	**0.047**	<	57.5[2]	**0.047**	<
Copper	25.0[2]	0.273		25.0[2]	0.272		25.0[2]	0.273		39.0[2]	0.895	
Iron	20.0[2]	0.138		93.0	**<0.001**	>	25.0[2]	0.275		0.4	0.530	
Lead	<0.1[2]	**0.001**	>	23.3	**<0.001**	>	1.1	0.312		<0.1	0.847	
Molybdenum	<0.1[2]	**0.001**	>	199.6	**<0.001**	>	0.2	0.667		6.2	**0.023**	>
Nickel	25.0[2]	0.274		25.0[2]	0.274		25.0[2]	0.275		0.2	0.660	
Selenium	19.5[2]	0.103		34.2	**<0.001**	>	11.7	**0.003**	>	0.6	0.434	
Uranium	25.0[2]	0.268		25.0[2]	0.268		63.5	**<0.001**	>	33.5[2]	0.722	
Zinc	25.0[2]	0.273		43.0	**<0.001**	>	30.0[2]	0.511		<0.1	0.860	
Lead-210	0.5[2]	**0.001**	>	26.1	**<0.001**	>	<0.1	0.890		55.0[2]	0.126	
Polonium-210	1.5[2]	**0.002**	>	47.0	**<0.001**	>	0.8	0.396		1.1	0.299	
Radium-226	0.1	0.778		19.0[2]	0.095		2.0	0.170		0.5	0.505	
Thorium-230	0.2	0.670		0.4	0.544		235.9	**<0.001**	>	50.0[2]	0.151	
Arsenic	26.0[2]	0.314		17.5	**0.001**	>	3.1	0.098		0.5	0.483	
Cobalt	25.0[2]	0.273		5.0[2]	**0.004**	>	25.0[2]	0.273		34.0[2]	0.759	
Vanadium	25.0[2]	0.274		22.0[2]	0.174		9.9	**0.006**	>	36.5[2]	0.930	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]Kruskal-Wallis test used instead of ANOVA.

[3]All values measured below the laboratory method detection limit.

Bold: values significant at α=0.050; Shaded cells indicate signficantly higher in the exposure area.

TABLE 3.3-7

Benthic invertebrate summary statistics, EARMP 2011.

Waterbody	Station	Density	Taxon Richness	Biomass
Cochrane River	1	10423	25	2.96
	2	8850	22	2.32
	3	5900	22	1.46
	4	6946	15	1.46
	5	9900	20	2.10
Total		42019	31	10.29
Mean		**8404**	**21**	**2.06**
S.D.		**1931**	**4**	**0.63**
Minimum		5900	15	1.46
Maximum		10423	25	2.96
Fond du Lac River	1	1592	7	1.16
	2	1338	18	0.96
	3	1562	18	1.32
	4	1377	10	1.18
	5	1315	13	1.20
Total		7185	24	5.82
Mean		**1437**	**13**	**1.16**
S.D.		**130**	**5**	**0.13**
Minimum		1315	7	0.96
Maximum		1592	18	1.32
Cree Lake	1	3485	26	0.93
	2	3669	21	1.33
	3	3685	24	1.30
	4	3335	30	1.04
	5	4069	21	1.29
Total		18242	40	5.89
Mean		**3648**	**24**	**1.18**
S.D.		**276**	**4**	**0.18**
Minimum		3335	21	0.93
Maximum		4069	30	1.33
Crackingstone Inlet	1	11042	18	4.30
	2	8592	16	3.00
	3	11758	19	4.74
	4	8377	16	4.22
	5	6742	17	2.83
Total		46512	32	19.09
Mean		**9302**	**17**	**3.82**
S.D.		**2060**	**1**	**0.85**
Minimum		6742	16	2.83
Maximum		11758	19	4.74

TABLE 3.3-7

Benthic invertebrate summary statistics, EARMP 2011.

Waterbody	Station	Density	Taxon Richness	Biomass
Ellis Bay	1	10062	25	4.84
	2	14562	23	7.10
	3	10723	24	5.53
	4	8812	23	5.29
	5	8838	22	4.09
Total		52996	35	26.86
Mean		**10599**	**23**	**5.37**
S.D.		**2361**	**1**	**1.11**
Minimum		8812	22	4.09
Maximum		14562	25	7.10
Waterbury Lake	1	2554	24	0.69
	2	1650	9	0.82
	3	3327	19	0.80
	4	5023	21	1.19
	5	4619	22	1.07
Total		17173	35	4.56
Mean		**3435**	**19**	**0.91**
S.D.		**1405**	**6**	**0.21**
Minimum		1650	9	0.69
Maximum		5023	24	1.19
Pasfield Lake	1	27785	17	11.69
	2	29585	18	7.58
	3	15969	19	2.69
	4	40585	15	14.61
	5	13281	22	2.94
Total		127204	30	39.51
Mean		**25441**	**18**	**7.90**
S.D.		**11063**	**3**	**5.27**
Minimum		13281	15	2.69
Maximum		40585	22	14.61

TABLE 3.3-8

Summary of the benthic invertebrate community univariate spatial comparisons, fall 2011.

Endpoint	Cochrane River versus Pooled References		Fond du Lac River versus Pooled References		Crackingstone Inlet versus Pooled References		Waterbury Lake versus Pooled References	
	F (or U)[1]	p	F (or U)[1]	p	F (or U)[1]	p	F (or U)[1]	p
Density	0.2	0.688	25.0	**<0.001**	<0.1	0.892	7.8	**0.012**
Taxon Richness	0.4	0.545	19.1	**<0.001**	8.1	**0.011**	48.5[2]	0.334
Biomass	1.7	0.213	6.8	**0.017**	0.1	0.818	10.4	**0.005**

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]Kruskal-Wallis test used instead of ANOVA.

Bold: values significant at α=0.050.

TABLE 3.3-9

Taxa contributing to observed differences in the benthic invertebrate communities sampled as part of the EARMP technical program, fall 2011.

Species	Cochrane River	Cree Lake	Contribution (%)	Cumulative Contribution (%)
	Average Abundance (Number/m^2)	Average Abundance (Number/m^2)		
Zalutschia	8.1	0.0	9.8	9.8
Diporeia hoyi	5.8	0.0	7.0	16.9
Bezzia	0.0	3.6	4.4	21.3
Corynocera	5.1	2.4	4.4	25.7
Oxyethira	3.4	0.0	3.9	29.6
Hexagenia limbata	0.0	3.0	3.7	33.3
Probezzia	1.4	3.6	3.3	36.7
Valvata sincera	5.1	2.5	3.2	39.9
Pagastiella	1.3	3.4	3.2	43.0
Ostracoda	2.5	4.8	3.0	46.0
Oligochaeta (cocoon)	0.0	2.4	2.8	48.8
Chironomus	1.9	3.7	2.7	51.6
Cladopelma	3.3	2.4	2.6	54.2
Cladotanytarsus	2.2	2.1	2.4	56.5
Heterotanytarsus	0.0	1.9	2.2	58.8
Nematoda	2.0	3.5	2.2	61.0
Dicrotendipes	1.5	1.8	2.2	63.2
Sergentia	1.8	0.7	2.2	65.4
Pisidium	4.7	3.9	2.1	67.5
Demicryptochironomus	0.0	1.7	2.0	69.5
Agrypnia	1.5	0.0	1.8	71.3
Sialis	0.0	1.5	1.8	73.1
Helobdella stagnalis	0.7	1.1	1.7	74.8
Molanna	1.4	0.0	1.7	76.6
Sphaerium	1.3	0.3	1.6	78.1
Cryptochironomus	3.9	3.2	1.5	79.7
Stempellina	0.0	1.2	1.3	81.0
Stictochironomus	0.0	1.0	1.2	82.2
Naidinae	1.1	0.0	1.2	83.4
Lymnaeidae	1.0	0.0	1.1	84.5
Polypedilum	4.0	4.7	1.1	85.6
Procladius	5.5	6.5	1.1	86.8
Tubificinae	4.0	4.9	1.1	87.8
Eurycercus	5.6	4.9	1.1	88.9
Endochironomus	0.0	0.9	1.0	89.9
Sphaeriidae	7.1	6.4	1.0	90.9

Total between waterbody dissimilarity = 40.78%

TABLE 3.3-9

Taxa contributing to observed differences in the benthic invertebrate communities sampled as part of the EARMP technical program, fall 2011.

Species	Fond du Lac River	Cree Lake	Contribution (%)	Cumulative Contribution (%)
	Average Abundance (Number/m^2)	Average Abundance (Number/m^2)		
Diporeia hoyi	6.9	0.0	7.5	7.5
Tanytarsus	0.6	6.4	6.3	13.7
Macrothricidae	0.8	6.1	5.7	19.5
Eurycercus	0.0	4.9	5.4	24.8
Polypedilum	0.3	4.7	4.8	29.7
Tubificinae	0.9	4.9	4.4	34.1
Pisidium	0.0	3.9	4.3	38.3
Bezzia	0.0	3.6	4.0	42.3
Nematoda	0.4	3.5	3.4	45.7
Hexagenia limbata	0.3	3.0	3.0	48.6
Chironomus	1.2	3.7	2.9	51.5
Larsia	3.0	0.4	2.8	54.4
Pagastiella	1.8	3.4	2.7	57.1
Corynocera	0.0	2.4	2.6	59.7
Cladopelma	0.4	2.4	2.6	62.3
Probezzia	2.1	3.6	2.5	64.9
Oligochaeta (cocoon)	0.0	2.4	2.5	67.4
Valvata sincera	0.5	2.5	2.4	69.7
Sphaeriidae	4.2	6.4	2.3	72.1
Cladotanytarsus	0.0	2.1	2.3	74.4
Cryptochironomus	2.1	3.2	2.1	76.5
Dicrotendipes	0.0	1.8	1.9	78.4
Procladius	4.8	6.5	1.9	80.3
Demicryptochironomus	0.0	1.7	1.8	82.0
Heterotanytarsus	1.7	1.9	1.7	83.7
Sialis	0.0	1.5	1.6	85.3
Parakiefferiella	1.4	0.0	1.4	86.7
Helobdella stagnalis	0.0	1.1	1.3	88.1
Stempellina	0.3	1.2	1.3	89.3
Stictochironomus	0.0	1.0	1.1	90.4

Total between waterbody dissimilarity = 65.09%

TABLE 3.3-9

Taxa contributing to observed differences in the benthic invertebrate communities sampled as part of the EARMP technical program, fall 2011.

Species	Crackingstone Inlet	Ellis Bay	Contribution (%)	Cumulative Contribution (%)
	Average Abundance (Number/m^2)	Average Abundance (Number/m^2)		
Diporeia hoyi	8.2	0.0	7.2	7.2
Thienemannimyia group	0.7	7.3	5.9	13.1
Chironomus	0.0	6.4	5.7	18.8
Dicrotendipes	0.7	6.9	5.4	24.2
Probezzia	6.9	0.9	5.3	29.5
Gammarus lacustris	0.0	5.4	4.7	34.2
Stictochironomus	0.0	5.0	4.5	38.7
Naidinae	0.0	4.6	4.1	42.8
Lumbriculidae	0.7	4.9	3.7	46.5
Paratanytarsus	1.6	5.8	3.7	50.2
Larsia	4.2	0.0	3.7	54.0
Callibaetis	0.0	3.6	3.2	57.1
Hyalella azteca	5.4	8.4	2.7	59.8
Potthastia longimana group	2.8	0.0	2.5	62.3
Gyraulus	2.2	4.9	2.5	64.8
Pisidium	3.8	2.2	2.2	67.0
Sphaeriidae	7.9	5.4	2.2	69.1
Nematoda	3.5	4.0	2.0	71.1
Procladius	2.6	3.3	1.8	73.0
Caenis	1.6	2.0	1.8	74.8
Eurycercus	0.0	1.5	1.3	76.1
Sphaerium	0.7	1.3	1.3	77.4
Mystacides	1.4	0.0	1.3	78.7
Sergentia	0.0	1.4	1.3	79.9
Erpobdella punctata	0.4	1.5	1.3	81.2
Helobdella stagnalis	0.0	1.4	1.2	82.4
Bezzia	0.0	1.4	1.2	83.6
Lymnaeidae	1.4	0.0	1.2	84.8
Enallagma	1.2	0.0	1.1	85.9
Phryganea	0.0	1.2	1.0	86.9
Ablabesmyia	0.7	0.6	1.0	87.9
Tubificinae	3.9	4.0	0.9	88.8
Cladotanytarsus	0.0	0.8	0.7	89.5
Parachironomus	0.0	0.8	0.7	90.2

Total between waterbody dissimilarity = 56.72%

TABLE 3.3-9

Taxa contributing to observed differences in the benthic invertebrate communities sampled as part of the EARMP technical program, fall 2011.

Species	Waterbury Lake	Pasfield Lake	Contribution (%)	Cumulative Contribution (%)
	Average Abundance (Number/m^2)	Average Abundance (Number/m^2)		
Corynocera	0.9	9.9	10.5	10.5
Cricotopus/Orthocladius	0.0	5.3	6.1	16.6
Macrothricidae	5.2	0.0	6.0	22.6
Hyalella azteca	5.2	0.0	5.7	28.3
Eurycercus	7.0	2.5	5.3	33.6
Nematoda	2.4	6.0	4.5	38.1
Cladotanytarsus	3.9	0.0	4.2	42.2
Lumbriculidae	0.4	3.2	3.3	45.5
Cryptochironomus	1.8	4.2	3.1	48.6
Agrypnia	0.0	2.4	2.8	51.4
Bezzia	2.8	0.7	2.7	54.1
Ostracoda	4.2	3.0	2.7	56.8
Tanytarsus	1.7	1.7	2.4	59.1
Gammarus lacustris	0.0	2.0	2.3	61.4
Stictochironomus	4.1	4.5	2.2	63.6
Procladius	4.7	5.1	2.2	65.7
Sergentia	1.4	1.9	2.1	67.8
Valvata sincera	4.2	2.5	2.0	69.8
Pisidium	3.7	5.2	1.9	71.6
Dicrotendipes	0.0	1.5	1.8	73.4
Pseudochironomus	1.4	0.7	1.7	75.1
Chironomus	0.3	1.3	1.7	76.7
Ablabesmyia	0.0	1.5	1.6	78.4
Cladopelma	0.0	1.4	1.6	80.0
Micropsectra	1.4	0.0	1.5	81.5
Psectrocladius	0.8	0.9	1.5	83.0
Polypedilum	0.0	1.3	1.5	84.5
Naidinae	1.4	0.0	1.4	85.9
Molanna	0.4	0.9	1.2	87.1
Tubificinae	3.7	4.1	1.2	88.2
Zalutschia	1.0	0.0	1.1	89.3
Monodiamesa	0.9	0.0	1.0	90.3

Total between waterbody dissimilarity = 55.45%

TABLE 3.3-10

Descriptive statistics of fish collected for chemistry for the EARMP technical program, fall 2011.

Waterbody	Statistic	Longnose Sucker		Lake Trout		Lake Whitefish		Northern Pike		White Sucker		All Species	
		Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)
Cochrane River	N	3	3	5	5	5	5	5	5	0	0	18	18
	Average	40.1	1037	61.2	2776	45.6	1170	53.8	1250	-	-	51.3	1616
	S.D.	2.4	151	4.2	566	2.8	188	4.5	326	-	-	8.6	815
	Minimum	37.9	930	57.5	2280	42.5	960	48.9	840	-	-	37.9	840
	Maximum	42.7	1210	67.7	3460	49.4	1380	59.4	1700	-	-	67.7	3460
Fond du Lac River	N	5	5	2	2	5	5	5	5	5	5	22	22
	Average	42.4	1308	56.7	2230	45.0	1478	53.7	1976	43.7	1416	47.2	1607
	S.D.	6.6	463	0.7	537	5.1	660	6.6	1338	3.7	299	7.2	774
	Minimum	36.2	840	56.2	1850	40.1	1040	46.3	910	40.5	1130	36.2	840
	Maximum	52.8	2020	57.2	2610	53.1	2550	63.4	4060	49.6	1920	63.4	4060
Cree Lake	N	9	9	5	5	8	8	0	0	5	5	27	27
	Average	36.4	693	50.6	1368	38.6	719	-	-	38.5	904	40.0	865
	S.D.	3.6	314	5.6	393	5.7	368	-	-	1.9	152	6.7	400
	Minimum	33.2	510	44.5	950	33.4	420	-	-	36.7	790	33.2	420
	Maximum	45.6	1510	57.9	1920	49.6	1530	-	-	41.7	1165	57.9	1920
Crackingstone Inlet	N	0	0	5	5	5	5	5	5	0	0	15	15
	Average	-	-	54.2	1970	41.3	1156	60.8	1794	-	-	52.1	1640
	S.D.	-	-	1.3	251	1.3	84	6.5	498	-	-	9.1	471
	Minimum	-	-	52.6	1680	40.1	1060	55.2	1320	-	-	40.1	1060
	Maximum	-	-	55.7	2280	43.4	1260	71.5	2560	-	-	71.5	2560
Ellis Bay	N	0	0	5	5	5	5	0	0	0	0	10	10
	Average	-	-	51.3	1758	38.7	1178	-	-	-	-	45.0	1468
	S.D.	-	-	3.3	450	4.1	190	-	-	-	-	7.5	447
	Minimum	-	-	48.5	1420	32.0	880	-	-	-	-	32.0	880
	Maximum	-	-	55.6	2480	43.2	1380	-	-	-	-	55.6	2480
Waterbury Lake	N	8	8	5	5	3	3	3	3	0	0	19	19
	Average	35.7	1279	54.9	2146	36.8	663	77.1	3513	-	-	47.5	1763
	S.D.	2.8	1738	6.4	833	1.2	96	9.5	1250	-	-	16.3	1536
	Minimum	32.2	450	50.6	1380	35.5	560	67.0	2250	-	-	32.2	450
	Maximum	39.5	5560	66.2	3310	37.5	750	85.9	4750	-	-	85.9	5560
Pasfield Lake	N	3	3	5	5	10.0	10	1	1	0	0	19	19
	Average	39.2	970	57.4	1851	33.7	473	84.4	3750	-	-	43.5	1087
	S.D.	6.3	652	2.4	207	1.7	69	-	-	-	-	14.5	909
	Minimum	33.3	420	53.1	1620	30.7	350	84.4	3750	-	-	30.7	350
	Maximum	45.8	1690	58.6	2015	36.1	580	84.4	3750	-	-	84.4	3750

S.D.=standard deviation.

TABLE 3.3-11

Eigenvectors of the proportion of variation expressed by each of the PC1 and PC2 axes for the flesh and bone chemistry of longnose sucker, lake trout, lake whitefish, northern pike, and white sucker.

Parameter of Potential Concern	PC1	PC2
Aluminum	-0.151	-0.318
Cadmium	-0.295	0.127
Copper	0.146	-0.031
Iron	-0.197	-0.157
Lead	-0.293	0.019
Mercury	0.168	0.333
Molybdenum	-0.250	0.091
Nickel	-0.283	0.084
Selenium	0.047	-0.637
Uranium	-0.260	-0.026
Zinc	-0.283	0.077
Lead-210	-0.281	0.058
Polonium-210	-0.146	-0.496
Radium-226	-0.284	0.122
Thorium-230	-0.293	0.124
Arsenic	-0.062	0.149
Cobalt	-0.285	0.019
Vanadium	-0.270	-0.125

TABLE 3.3-12

Eigenvectors of the proportion of variation expressed by each of the PC1 and PC2 axes for the flesh and bone chemistry of lake trout and northern pike only.

Parameter of Potential Concern	PC1	PC2
Aluminum	-0.018	0.081
Cadmium	-0.329	0.027
Copper	0.194	-0.098
Iron	-0.139	-0.186
Lead	-0.265	0.010
Mercury	0.194	0.144
Molybdenum	-0.223	0.019
Nickel	-0.294	-0.023
Selenium	0.092	-0.353
Uranium	-0.225	0.020
Zinc	-0.316	-0.204
Lead-210	-0.284	-0.005
Polonium-210	-0.089	-0.424
Radium-226	-0.303	0.032
Thorium-230	-0.314	0.018
Arsenic	-0.129	0.755
Cobalt	-0.303	-0.086
Vanadium	-0.210	0.018

TABLE 3.3-13

Eigenvectors of the proportion of variation expressed by each of the PC1 and PC2 axes for the flesh and bone chemistry of longnose sucker, lake whitefish, and white sucker only.

Parameter of Potential Concern	PC1	PC2
Aluminum	-0.219	-0.559
Cadmium	-0.275	0.071
Copper	0.119	0.369
Iron	-0.222	0.177
Lead	-0.307	-0.052
Mercury	0.111	-0.187
Molybdenum	-0.257	0.234
Nickel	-0.276	0.080
Selenium	0.048	-0.315
Uranium	-0.277	-0.220
Zinc	-0.266	0.072
Lead-210	-0.279	0.079
Polonium-210	-0.145	0.205
Radium-226	-0.273	0.109
Thorium-230	-0.280	0.102
Arsenic	-0.010	-0.352
Cobalt	-0.266	0.067
Vanadium	-0.302	-0.255

TABLE 3.3-14

Summary of lake trout flesh and bone chemistry spatial comparisons, fall 2011.

Parameter of Potential Concern	Cochrane River versus Pooled Reference						Crackingstone Inlet versus Pooled Reference						Waterbury Lake versus Pooled Reference					
	Flesh			Bone			Flesh			Bone			Flesh			Bone		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	-[2]	-[2]		45.0[3]	0.292		30.0[3]	0.083		37.0[3]	0.950		-[2]	-[2]		45.0[3]	0.292	
Cadmium	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	
Copper	5.0[3]	**0.016**	<	71.0[3]	**0.003**	<	66.0[3]	**0.013**	<	24.0[3]	0.236		60.5[3]	**0.044**	<	0.9	0.344	
Iron	3.6	0.074		0.2	0.633		0.3	0.620		0.3	0.566		<0.1	0.832		0.5	0.502	
Lead	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		30.0[3]	0.083		-[2]	-[2]	
Mercury	2.3	0.145		4.5	**0.047**	>	3.7	0.072		0.2	0.625		17.5[3]	0.079		13.3	**0.002**	>
Molybdenum	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	
Nickel	14.1	**0.001**	>	18.5[3]	0.093		35.5[3]	0.779		67.0[3]	**0.009**	<	42.5[3]	0.402		64.5[3]	**0.017**	<
Selenium	<0.1	0.944		0.5	0.477		5.6	**0.029**	<	4.7	**0.044**	<	53.5[3]	0.162		2.2	0.158	
Uranium	35.0[3]	0.726		40.0[3]	0.564		42.5[3]	0.402		40.0[3]	0.564		35.0[3]	0.726		33.0[3]	0.451	
Zinc	66.0[3]	**0.013**	<	3.8	0.067		0.1	0.818		49.0[3]	0.312		0.1	0.707		0.4	0.534	
Lead-210	-[2]	-[2]		47.5[3]	0.210		-[2]	-[2]		47.5[3]	0.210		-[2]	-[2]		47.5[3]	0.210	
Polonium-210	32.5[3]	0.402		0.2	0.642		40.0[3]	0.564		40.0[3]	0.774		18.5[3]	**0.018**	>	28.5[3]	0.356	
Radium-226	63.0[3]	**0.022**	<	26.5[3]	0.312		44.0[3]	0.559		<0.1	0.875		58.0[3]	0.066		24.0[3]	0.202	
Thorium-230	45.0[3]	0.290		35.0[3]	0.564		37.5[3]	1.000		35.0[3]	0.564		45.0[3]	0.290		42.5[3]	0.402	
Arsenic	1.0	0.333		<0.1	0.932		2.4	0.135		12.8	**0.002**	>	0.3	0.573		0.4	0.561	
Cobalt	1.0	0.334		25.0[3]	0.146		46.5	0.354		62.5[3]	**0.012**	<	52.5[3]	0.105		3.6	0.076	
Vanadium	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]All values measured below the laboratory method detection limit.

[3]Kruskal-Wallis test used instead of ANOVA.

Bold: values signigicant at α=0.050.

Gray cells: values significantly greater in the exposure than in the pooled references.

TABLE 3.3-15

Summary of lake whitefish flesh and bone spatial comparisons, fall 2011.

Parameter of Potential Concern	Cochrane River versus Pooled References						Fond du Lac River versus Pooled References					
	Flesh			Bone			Flesh			Bone		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	-[2]	-[2]		19.0[3]	0.104		-[2]	-[2]		5.9	**0.026**	>
Cadmium	-[2]	-[2]		-[2]	-[2]		22.5[3]	**0.012**	>	-[2]	-[2]	
Copper	58.0[3]	0.073		9.4	**0.007**	<	5.3	**0.033**	<	0.2	0.655	
Iron	0.3	0.622		36.0[3]	0.896		0.4	0.530		44.0[3]	0.570	
Lead	40.0[3]	0.564		21.5[3]	0.154		40.0[3]	0.564		7.7	**0.013**	<
Mercury	7.7	**0.013**	>	11.5[3]	**0.008**	>	7.8	**0.012**	>	3.3	0.086	
Molybdenum	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	
Nickel	<0.1	0.986		27.0[3]	0.350		47.5[3]	0.211		44.0[3]	0.557	
Selenium	0.9	0.348		1.8	0.194		9.5	**0.007**	>	10.1	**0.005**	>
Uranium	21.5[3]	0.109		25.0[3]	0.243		47.5[3]	0.211		24.0[3]	0.208	
Zinc	0.2	0.651		0.4	0.553		4.6	**0.046**	<	0.3	0.585	
Lead-210	-[2]	-[2]		52.5[3]	0.104		-[2]	-[2]		44.0[3]	0.503	
Polonium-210	0.1	0.819		0.1	0.821		0.8	0.379		0.5	0.486	
Radium-226	60.5[3]	**0.036**	<	26.5[3]	0.292		27.0[3]	0.348		0.8	0.397	
Thorium-230	49.0[3]	0.106		30.0[3]	0.083		1.4	0.249		30.0[3]	0.083	
Arsenic	<0.1	0.888		0.1	0.713		1.8	0.196		1.6	0.226	
Cobalt	5.2	**0.035**	>	28.5[3]	0.260		<0.1	0.847		35.5[3]	0.818	
Vanadium	-[2]	-[2]		1.2	0.280		-[2]	-[2]		27.0[3]	0.351	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]All values measured below the laboratory method detection limit.

[3]Kruskal-Wallis test used instead of ANOVA.

Bold: values significant at α=0.050.

Gray cells: values significantly greater in the farfield exposure than in the pooled references.

TABLE 3.3-15

Summary of lake whitefish flesh and bone spatial comparisons, fall 2011.

Parameter of Potential Concern	Crackingstone Inlet versus Pooled References						Waterbury Lake versus Pooled References					
	Flesh			Bone			Flesh			Bone		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	-[2]	-[2]		2.0	0.178		-[2]	-[2]		0.7	0.429	
Cadmium	30.0[3]	0.083		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	
Copper	0.2	0.664		13.5[3]	**0.036**	>	33.5[3]	0.192		32.0[3]	0.258	
Iron	0.3	0.597		34.0[3]	0.760		0.4	0.528		22.0[3]	0.953	
Lead	40.0[3]	0.564		<0.1	0.937		24.0[3]	0.655		30.0[3]	0.355	
Mercury	2.7	0.115		1.3	0.272		0.3	0.594		20.0[3]	0.683	
Molybdenum	-[2]	-[2]		-[2]	-[2]		-[2]	-[2]		-[2]	-[2]	
Nickel	38.0[3]	0.954		13.5[3]	**0.033**	>	28.5[3]	0.329		31.0[3]	0.298	
Selenium	37.0[3]	0.965		34.0	0.758		38.5	**<0.001**	>	62.4	**<0.001**	>
Uranium	9.5[3]	**0.006**	>	6.2	**0.023**	>	22.0[3]	0.940		25.0[3]	0.724	
Zinc	0.2	0.631		0.5	0.497		0.3	0.616		39.0[3]	**0.049**	
Lead-210	-[2]	-[2]		52.5[3]	0.104		-[2]	-[2]		23.0[3]	0.946	
Polonium-210	2.3	0.146		3.5	0.077		0.1	0.710		0.3	0.620	
Radium-226	31.0[3]	0.561		<0.1	0.834		10.0[3]	0.131		0.1	0.707	
Thorium-230	4.5	**0.047**	>	-[2]	-[2]		11.5[3]	0.072		-[2]	-[2]	
Arsenic	28.0[3]	0.406		2.5	0.132		34.5[3]	0.152		5.4	**0.034**	<
Cobalt	1.6	0.216		7.3	**0.015**	>	19.0[3]	0.636		4.6	**0.049**	<
Vanadium	-[2]	-[2]		39.0[3]	0.893		-[2]	-[2]		9.3	**0.008**	>

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]All values measured below the laboratory method detection limit.

[3]Kruskal-Wallis test used instead of ANOVA.

Bold: values significant at α=0.050.

Gray cells: values significantly greater in the farfield exposure than in the pooled references.

TABLE 3.3-16

Summary of longnose sucker flesh and bone chemistry spatial comparisons, fall 2011.

Parameter of Potential Concern	Fond du Lac River versus Pooled References						Waterbury Lake versus Pooled References					
	Flesh			Bone			Flesh			Bone		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	22.5[2]	0.429		19.0[2]	0.816		22.5[2]	0.429		22.5[2]	0.429	
Cadmium	0.6	0.456		-[3]	-[3]		25.0[2]	0.245		-[3]	-[3]	
Copper	8.5[2]	0.090		31.5[2]	0.090		12.4	**0.005**	<	33.5[2]	**0.048**	<
Iron	0.3	0.584		3.8	0.077		9.0	**0.012**	<	8.6	**0.014**	<
Lead	-[3]	-[3]		22.5[2]	0.429		-[3]	-[3]		22.5[2]	0.429	
Mercury	19.8	**0.001**	>	5.1	**0.045**	>	0.4	0.548		22.5[2]	0.429	
Molybdenum	-[3]	-[3]		<0.1[2]	**0.001**	>	12.0[2]	0.063		<0.1[2]	**0.001**	>
Nickel	0.4	0.562		0.7	0.406		0.6	0.459		30.5[2]	0.113	
Selenium	0.1	0.711		18.2	**0.001**	>	7.2	**0.021**	<	24.5[2]	0.508	
Uranium	25.0[2]	0.245		42.3	**<0.001**	>	<0.1	0.857		22.5[2]	0.429	
Zinc	1.1	0.307		1.2	0.304		26.0[2]	0.378		33.5[2]	**0.046**	<
Lead-210	-[3]	-[3]		22.5[2]	0.429		-[3]	-[3]		22.5[2]	0.429	
Polonium-210	0.1	0.815		5.1	**0.045**	<	21.7	**0.001**	<	16.7	**0.002**	<
Radium-226	32.0[2]	0.063		22.0[2]	0.692		24.0[2]	0.535		22.0[2]	0.692	
Thorium-230	30.0[2]	0.073		1.5	0.241		30.0[2]	0.073		25.0[2]	0.243	
Arsenic	6.5	**0.027**	>	14.8	**0.003**	>	<0.1	0.853		1.1	0.317	
Cobalt	1.6	0.229		18.5[2]	0.816		1.7	0.224		29.5[2]	0.124	
Vanadium	-[3]	-[3]		-[3]	-[3]		-[3]	-[3]		-[3]	-[3]	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]Kruskall-Walis test used instead of ANOVA.

[3]All values measured below the laboratory method detection limit.

Bold: values significant at α=0.050.

Gray cells: values significantly greater in the exposure than in pooled references.

TABLE 3.3-17

Summary of white sucker flesh and bone chemistry spatial comparisons, fall 2011.

Parameter of Potential Concern	Fond du Lac River versus Cree Lake					
	Flesh			Bone		
	F (or U)[1]	p	Direction	F (or U)[1]	p	Direction
Aluminum	20.0[2]	0.053		9.5[2]	0.439	
Cadmium	-	-		-	-	
Copper	3.1	0.117		0.8	0.397	
Iron	0.5	0.481		31.6	**<0.001**	<
Lead	-	-		-	-	
Mercury	35.7	**<0.001**	>	2.5[2]	**0.018**	>
Molybdenum	-	-		<0.1[2]	**0.005**	>
Nickel	2.5[2]	**0.018**	>	2.2	0.181	
Selenium	11.7	**0.009**	>	7.2	**0.028**	>
Uranium	10.0[2]	0.317		<0.1[2]	**0.005**	>
Zinc	<0.1	0.875		10.2	**0.013**	<
Lead-210	-	-		15.0[2]	0.317	
Polonium-210	1.0	0.340		<0.1	0.988	
Radium-226	21.0[2]	0.070		11.0[2]	0.699	
Thorium-230	22.5[2]	**0.014**	<	<0.1	1.000	
Arsenic	0.1	0.774		7.0[2]	0.228	
Cobalt	6.0	**0.040**	>	0.4	0.545	
Vanadium	-	-		-	-	

[1]F values in cases of ANOVAs, U values in case of Kruskal-Wallis tests.

[2]Kruskal-Wallis test used instead of ANOVA.

Bold: values significant at α=0.050.

Gray cells: values significantly greater in the farfield exposure than in its respective reference.

APPENDICES

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APPENDIX A

2011 EARMP SOILS ASSESSMENT REPORT

CanNorth
Canada North Environmental Services
Limited Partnership

2011 EASTERN ATHABASCA REGIONAL MONITORING PROGRAM SOILS ASSESSMENT REPORT

APPENDIX A

Prepared by:

Canada North Environmental Services
Saskatoon, Saskatchewan

Prepared for:

Boreal Watershed Initiative
Regina, Saskatchewan

Project No. 1489

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1.0 METHODS

1.1 Soil Profile

Thirty sample stations were established throughout the Eastern Athabasca Regional Monitoring Program (EARMP) study area, five in each of the six communities (Figures 2 to 8). All sampling stations were located where local community members harvest berries every year. For Stony Rapids, Black Lake, Wollaston Lake/Hatchet Lake, and Fond du Lac, blueberries (*Vaccinium myrtilloides*) are the most abundant in the area and were used to determine the location of the sampling stations. For Uranium City and Camsell Portage, bog cranberries (*Vaccinium vitis-idaea*) are the most abundant in the area and were chosen to select the location of sampling stations. The precise location of each of the soil profiles was chosen to include at least a few of the berry plants in the vegetation cover. Most of the sampling stations were located in close proximity to roads and/or trails that are commonly used by the local communities. To avoid disturbance and soil alteration from these access points, a buffer of at least 25 m was placed between the roads and/or trails and the location of the soil profile pit.

Soil profiles were investigated at all 30 stations and were classified in accordance with the Canadian System of Soil Classification (CSSC) (SCWG 1998). For all soil horizons, morphological information was collected for each horizon. The morphological characteristics that were document included: horizon designation, horizon depth, boundary distinctness and form, Munsell colour, moisture, texture, mottles, roots, pores, clay films, coarse fragment content, structure, and consistence. The colour description given follows the Munsell Soil Color Charts (Munsell Color 1994). For organic soils, additional information included the von Post decomposition class and humus descriptors.

Measurement of pH and determination of calcium carbonate was done in each pit for each horizon at each sample station. Soil pH was measured using paper pH indicator strips (EMD colorpHast®) in a 1:1 solution of distilled water and soil. The accuracy of these strips was assumed to be ± 1 pH unit. The presence of calcium carbonate was determined by the addition of 10% HCl to the soil. The degree of effervescence (if any), which would indicate the presence of calcium carbonate was recorded (USDA-NRCS 2005; Brady and Weil 2008).

Site description information collected at each station included: parent material, surface expression, fire regime, present land use, slope class, slope aspect, slope descriptor, pit

slope location, soil drainage, seepage presence, pit depth, rooting depth, depth to root restriction, depth to permafrost, surface stoniness, and surface rockiness. In addition, ecosite classification based on McLaughlan et al. (2010) was inventoried for further support to the soil classification. Photographs and UTM coordinates were obtained at all sample stations.

Soil test pits were dug using a clean shovel to the underlying parent material (maximum depth was 140 cm). The shovel was cleaned after each sample station to ensure that no soil from the previous sample remained. At each station, samples for laboratory analyses were obtained from each soil horizon. Samples were collected from the sides of the soil pits using a clean stainless steel spatula, and sampling proceeded from the bottom of the pit up to the top. Samples were placed in labelled polyethylene bags (double-bagged), and sample mass was measured to ensure that enough material was sampled for analysis (minimum 500 g of sample, wet weight). Collected samples were frozen and submitted to Australian Laboratory Services (ALS) in Saskatoon for analysis.

Analyses conducted per sample depended on the soil horizon; e.g., organic matter was analyzed for the upper horizons (LFH, A, and B horizons), but not for the deep horizons (C horizons). A list of categories of analyses completed per sample is presented in Table 1. Parameters relevant to detailed salinity, which was measured for all samples, included: pH (in saturated paste) (McKeague 1978), electrical conductivity in saturated paste (dS/m) (Carter and Gregorich 2008), and percent saturation (%) (Carter and Gregorich 2008). Cations, including sodium (mg/L), potassium (mg/L), calcium (mg/L), magnesium (mg/L), and sulfur (as SO_4) (mg/L) in saturated soil were also determined (Carter and Gregorich 2008). Chloride (mg/L) was determined using the method described in Greenberg et al. (1992). Sodium absorption ratios (SAR) were calculated by the method described in Carter and Gregorich (2008).

Total organic carbon (%), inorganic carbon (%), and calcium carbonate equivalent (%) were measured using the gravimetric method for loss of carbon dioxide method described in Loeppert and Suarez (1996). Total carbon by combustion (%) was measured using the total carbon by combustion method described in Nelson and Sommers (1996). Organic matter (%) and loss on ignition (%) determination were by Method 4.23 described in McKeague (1978).

Particle size, including percent sand (%), percent silt (%), and percent clay (%), was measured (Kalra and Maynard 1991; Burt 2009). Texture was determined from the ratios of these particle size measurements following the CSSC (SCWG 1998).

Macronutrient concentrations including available nitrate (NO_3-N) (mg/kg) was measured by extraction from the soil using a dilute calcium chloride solution described in Alberta Agriculture (1988); available phosphate (PO_4-P) (mg/kg) and available potassium (mg/kg) were measured by the method described in Qian et al. (1994). Cation exchange capacity (meq/100 g) was determined by use of 1M ammonium acetate (NH_4OAc) extraction at pH 7, followed by leaching with NaCl, and determination of CEC by autoanalyzer (Method 19.4, Carter 1993).

1.2 Soil Chemistry

At each of the soil pit locations a soil sample from the plant rooting zone (up to a maximum depth of 50 cm) was collected. The stations were established to provide chemistry results from areas where the local community members harvest berries every year. A multi-stage soil core sampler with an attached slide hammer was used to collect the soil samples. Depths of the samples varied depending on the amount of rock and/or gravel present at the sampling locations. For most of the sampling locations a core to a depth of 50 cm was not feasible due to the large proportion of rock and/or gravel in the study areas. Twenty-nine samples were collected with only one not collected from Camsell Portage (Station 4) because of gravel present in the sampling location. The advantage of using the multi-stage soil core sampler was that the soil sample was collected within a liner (plastic tube), which reduced the risk of contamination. Soil samples were capped, labelled, placed in a freezer, and shipped back to Saskatoon where they were submitted to SRC for analysis. The chemical analyses included the following analytes:

Analytes	
Metals	Aluminum, Barium, Boron, Cadmium, Chromium, Copper, Iron, Lead, Manganese, Molybdenum, Nickel, Selenium, Silver, Thallium, Tin, Titanium, Uranium, Zinc
Radionuclides	Lead-210, Polonium-210, Radium-226, Thorium-230
Trace elements	Antimony, Arsenic, Beryllium, Cobalt, Strontium, Vanadium
Physical properties	% Moisture, pH

The full suite of parameters above were assessed, however, the data analysis focused on parameters of potential concern (POPCs) presented in Section 2.1.3 of the EARMP

report. Soil chemistry results were compared to available federal guidelines for the protection of environmental and human health (CCME 2012).

2.0 RESULTS

2.1 Soil Profile

All of the soil pits encountered in the EARMP study area were classified under the Soil Order Brunisol. Brunisolic soils are typically considered to be transitional soils in an early stage of development. They are more strongly developed than Regosols, however, do not yet have sufficient horizon development to be considered either a Luvisolic or Podzolic profile. These soils are typically formed under forests and have a brownish-coloured Bm horizon. However, there can be variations to the colour of the B horizon and may include accumulations of clay (to create a Btj horizon), or Al and Fe compounds (Bfj horizon), or both (SCWG 1998). The presence of weakly developed/juvenile Bt or Bf horizons in a Brunisolic soil indicate a soil-forming process that is tending towards the eventual development of a Luvisol (Bt horizon present) or a Podzol (Bf horizon).

Diagnostic traits for Brunisolic soils include a Bm, Bfj, thin Bf, or Btj horizon at least 5 cm thick. In addition, the B horizon may have one or all of the following characteristics: stronger chroma and redder hue than the underlying material, partial or complete removal of carbonates, slight illuviation based mainly on the occurrence of an overlying Ae horizon, or a change in structure from that of the original material (SCWG 1998). Most Brunisolic soils are well to imperfectly drained. This Soil Order occurs throughout a range of climatic and vegetative environments, including boreal forest, mixed forest, and tundra (SCWG 1998).

A discussion of the soil classification for all of the stations from each of the six communities is presented below. Descriptions of the properties of each soil profile encountered in the EARMP study area are provided in table format. Table 2 includes information regarding the station locations and the soil classification for each of the soil samples. Tables 3 and 4 present detailed site and soils information collected in the field for each soil profile, and Tables 5 to 11 present results of soil chemical and physical properties from field and laboratory tests. The information provided in each table is summarized below:

- Table 2: UTM coordinates for each of the five sampling stations in each of the six communities, the soil classification to the subgroup level, the parent material, fire regime (burned or unburned), and the assessment date;

- Table 3: Site description information for soil sample stations. This table presents site characteristics such as: parent material, ecosite classification (McLaughlan et al. 2010), pit depth, rooting depth, soil drainage, presence of seepage, surface stoniness, rockiness, slope class, slope aspect, pit slope location, as well as any additional notes pertaining to the pit;
- Table 4: Morphological characteristics for soil sample stations. This table presents the following information: horizon designation and depths, Munsell colour, moisture, pH, effervescence, field texture, von Post decomposition, mottle descriptors, root characteristics, pores, clay film properties, coarse fragments, soil structure, and consistence, and;
- Tables 5 to 11: Soil chemistry results and physical characteristics from field and laboratory tests for soil horizon samples from each of the six communities.

The locations of the sampling stations are indicated on Figures 2 to 7. Appendix A-1 contains the soil pit log sheets that detail the soil horizons at each station, as well as a photo of each soil pit. The depth of each soil horizon is shown. Habitat photos taken at each station are presented in Appendix A-2. Background information regarding ecosystem descriptions and surficial geology for each community is presented in Appendix A-3. Detailed tables relating to geology, ecozones, and ecoregions along with detailed soil chemistry are presented in Appendix A-4.

2.1.1 Stony Rapids

Soil sampling Stations 1, 2, and 3 were classified as Eluviated Dystric Brunisols (all had pH measurements of the B horizon <5.5), while Stations 4 and 5 were classified as Eluviated Eutric Brunisols (pH >5.5). The soil pits were located in forested areas that had been recently burned within the previous five years. The sites were generally very well drained. Stations 1, 2, 3, and 4 had glacial till overlain by fluvial as the parent material, while Station 5 had till/fluvial deposits as parent material. Discontinuous pores were noted throughout the Bm horizon at Station 4, and a clay film was observed between the bedrock/C interface.

Stations 1, 2, and 3 had the diagnostic features of Brunisols discussed above and were typical of this Soil Order. Evidence of Podzolic tendencies was noted in Stations 4 and 5, as they both had Bfj horizons that were thicker than 10 cm (SCWG 1998). A Bfj horizon is a juvenile soil that is enriched with amorphous material, principally Al and Fe

combined with organic material (SCWG 1998). Bf horizons are typically found in Podzolic soils. However, for a soil profile to be classified as a Podzol, it must satisfy both the morphological and chemical limits specified for that soil Order. To determine with certainty if a soil should indeed be classified in the Podzolic Order, pyrophosphate-extractable Fe and Al concentrations are required for determination if the B horizon satisfies the diagnostic criteria for designation into the Podzolic Order (note that these analyses were not conducted for the present report and therefore further discussion is not provided).

2.1.2 Black Lake

All of the Black Lake Stations were located in forested areas that had been recently burned in the previous five years. These sites were rapidly drained. The parent material consisted of glacial till for Stations 1, 2, and 3, fluvial glacial till at Station 4, and glaciofluvial over thin moraine at Station 5. Three of the stations were classified as Eluviated Dystric Brunisols (Stations 1, 4, and 5); however, only Stations 4 and 5 were characteristic of this type of Brunisolic soil subgroup, as Station 1 displayed some Podzolic characteristics (presence of Bh and Bfj horizons >10 cm thick, and a Bh with >1% organic carbon). Station 3 had pH measurements slightly less acidic, therefore classifying it in the Eluviated Eutric Brunisol subgroup.

Station 2 was classified as a Duric Dystric Brunisol. This soil profile is notable, as once again the horizons are somewhat indicative of Podzol characteristics, but do not quite reference the Podzol Order. It had a Bhfjccj horizon, which is a strongly cemented horizon (in a juvenile stage) (SCWG 1998). This duric horizon displayed a strong reddish-brown colour (Appendix A-1).

2.1.3 Fond du Lac

All five of the Fond du Lac soil stations displayed lithological discontinuties in the profile, which related to different modes of mineral deposition. Essentially, this resulted in the profiles having more than one type of parent material, and this is indicated in the horizon designations by the use of Roman numerals ('I' indicates eolian parent material, and 'II' was used to indicate morainal or glaciofluvial deposits) (Table 4). The majority of the area had evidence of wind (eolian) action as a second or third depositional parent material. In most cases, the eolian material was overlying either morainal or fluvial

deposits. Fluvial materials were denoted by the presence of very weathered, rounded stones located in the lower profiles of several sampling stations. Eolian sands were identified within the A horizons.

All of the sampling stations were classified as Eluviated Dystric Brunisols, with the exception of Station 1, which was an Orthic Dystric Brunisol. The soil pit locations were forested and had been recently burned in the last five years. The soil texture was very coarse, with nearly all horizons analyzed having a texture of sand. Coincidentally, the soil drainage was very rapid at all locations. All of the soil pits had the typical diagnostic features of Brunisols. Station 1 was unique because of the presence of a buried Ah horizon. There were obvious signs of historic fires in the soil profile, and the Ahb horizon was likely previously an LFH that was destroyed during a fire and was incorporated as humus into the surrounding soil horizons, creating the Ahb. The IC horizon has since been deposited by wind action on top of the Ahb.

2.1.4 Wollaston Lake/Hatchet Lake

The five Stations located near the Wollaston Lake/Hatchet Lake community were all classified as Brunisols. Stations 1 and 3 had pH measurements slightly more basic, and were therefore placed in the Eluviated Eutric Brunisol subgroup, while the remaining stations were classified as Eluviated Dystric Brunisols. All of the pits were located in forested areas and two of the Stations (4 and 5) were recently burned within the previous five years. The sites were well to rapidly drained. The parent material ranged from fluvial at Stations 2, 4, and 5, fluvial glacial till at Station 1, and morainal at Station 3.

As was noted at Stony Rapids and Black Lake, the soil profiles tended towards some Podzolic characteristics, however, none of them met the full requirements for diagnosis as a Podzol. The B horizons at all of the stations were noted to be further developed than Bm horizons, and were classified as Bfj horizons. All the Bfj horizons were relatively thick in depth (~20 cm or more) and displayed slightly more red in colour than the previous community stations (Appendix A-1).

2.1.5 Uranium City

The Uranium City sampling stations were geographically separated greater distances than the other communities. As such, a variety of parent materials, landforms, and resulting

soil horizons and classifications were observed. The predominant parent material was fluvial/glaciofluvial, which was noted at all stations, except for Station 4 (which had a parent material of glacial till with eolian deposits and bedrock). All stations were unburned and the present use was unproductive woodland.

Station 2 was an Eluviated Dystric Brunisol, and fit the diagnostic criteria for this subgroup. Three of the stations were classified as Eluviated Eutric Brunisols (Stations 1, 3, and 4); nevertheless, each had a different designation for the B horizon. Station 1 had two Bm horizons which were separated based on a change in texture and colour. Station 3 had a clay-enriched Btj horizon, which indicates a tendency towards development into a soil of the Luvisolic Order. However, the structure of the Btj was not quite columnar/coarse-blocky enough for classification as a full Bt, or Luvisolic classification. Station 4 had a thick Bfj horizon which had evidence of early cementation in the bottom 2 to 5 cm of the horizon (Table 3).

Station 5 was classified as a Gleyed Eluviated Dystric Brunisol. It was located near the shoreline of Fredette Lake, and as a result, flood waters and wave action from the waterbody strongly influenced the soil profile. The station was complex, and was edited post-laboratory analysis based on further literature search. Research into fragipan formation resulted in the IIIBx (fragipan horizon) being added during a review of the soil classification (therefore, no results were available for presentation for this horizon in any of the report tables). A fragipan horizon is one that is very hard, nearly cemented when dry, and can act to restrict water movement and/or root penetration (SCWG 1998). In addition, this soil profile had prominent mottles in the Cg horizon that indicate gleying. The mottles have likely developed in high water years or during excessive rain as the underlying bedrock acts as a barrier to flow, thereby creating the periodic reducing conditions that lead to mottling.

2.1.6 Camsell Portage

All of the five Camsell Portage soil sampling stations were located near the shoreline of Lake Athabasca, and as such, had parent materials that were identified as lacustrine (beach ridges) or fluvial. Stones and gravel were noted in several of the sites, and resulted in the soil drainage being described as very rapid throughout all profiles. The sites were forested and were unburned.

The soil classification for all five stations was Eluviated Dystric Brunisol. In general, they all had the typical diagnostic characteristics for placement into this subgroup, although Station 4 also had an organic layer (Of) deposited on top of a buried Ae layer. This layer was a previously burned LFH horizon, which was subsequently buried.

2.2 Soil Chemistry

A summary of the soil chemistry parameter concentrations assessed from the rooting zone of each community berry picking sampling area is presented in Table 11 along with available soil quality guidelines for the protection of environmental and human health (CCME 2012). The agricultural guidelines were used since they are the most conservative and include the soil-plant-human pathway in the calculation of the guideline (CCME 2012).

As shown in Table 11, concentrations of all parameters were well below available guidelines for the protection of environmental and human health. There was some variation in the chemistry between communities. The Fond du Lac soil generally contained the lowest concentrations of most parameters. This was particularly evident in mean concentrations of aluminum, iron, lead, nickel, zinc, cobalt, and vanadium. Parameters were often, but not always, highest in Uranium City.

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FIGURES

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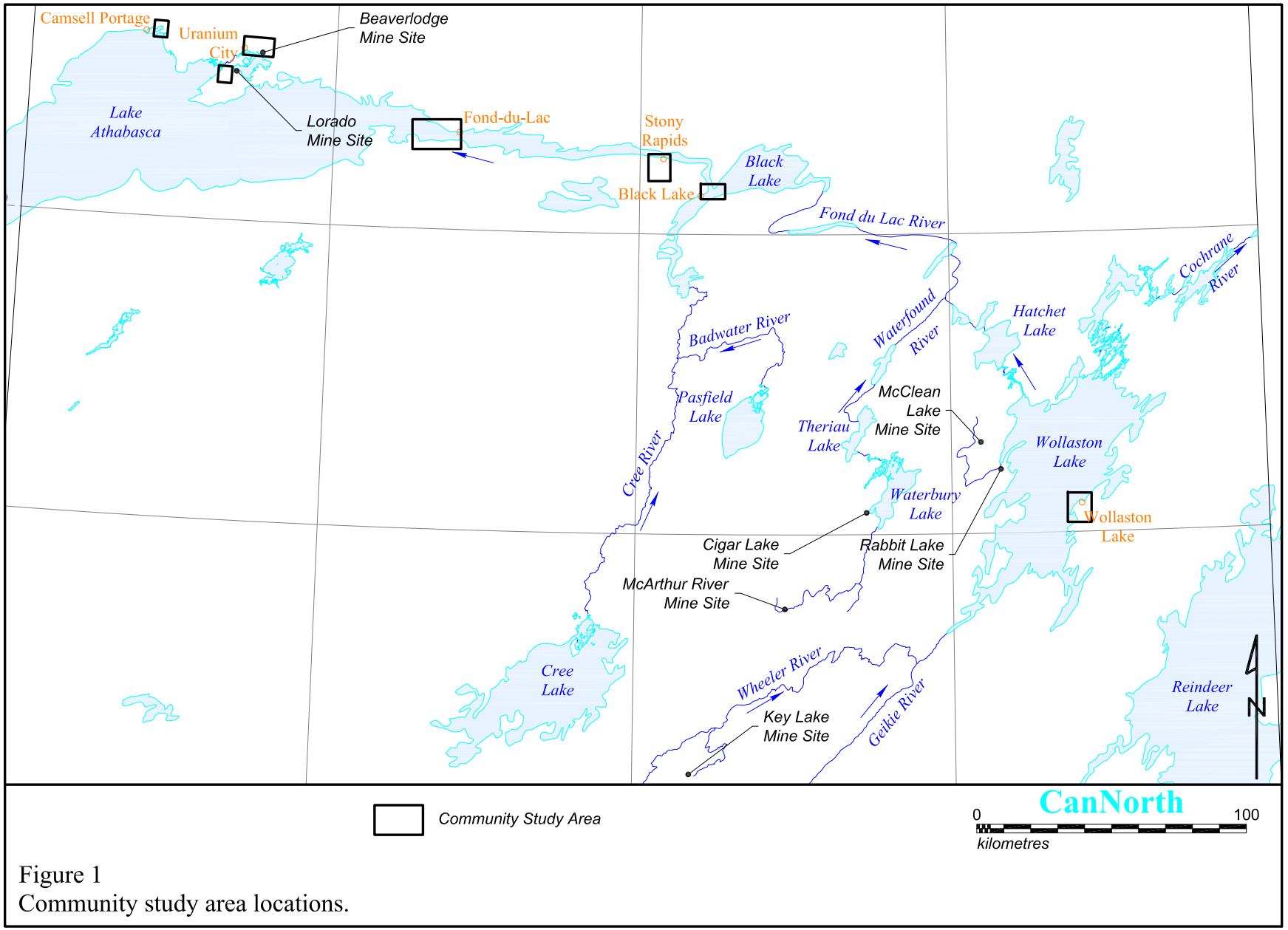

Figure 1
Community study area locations.

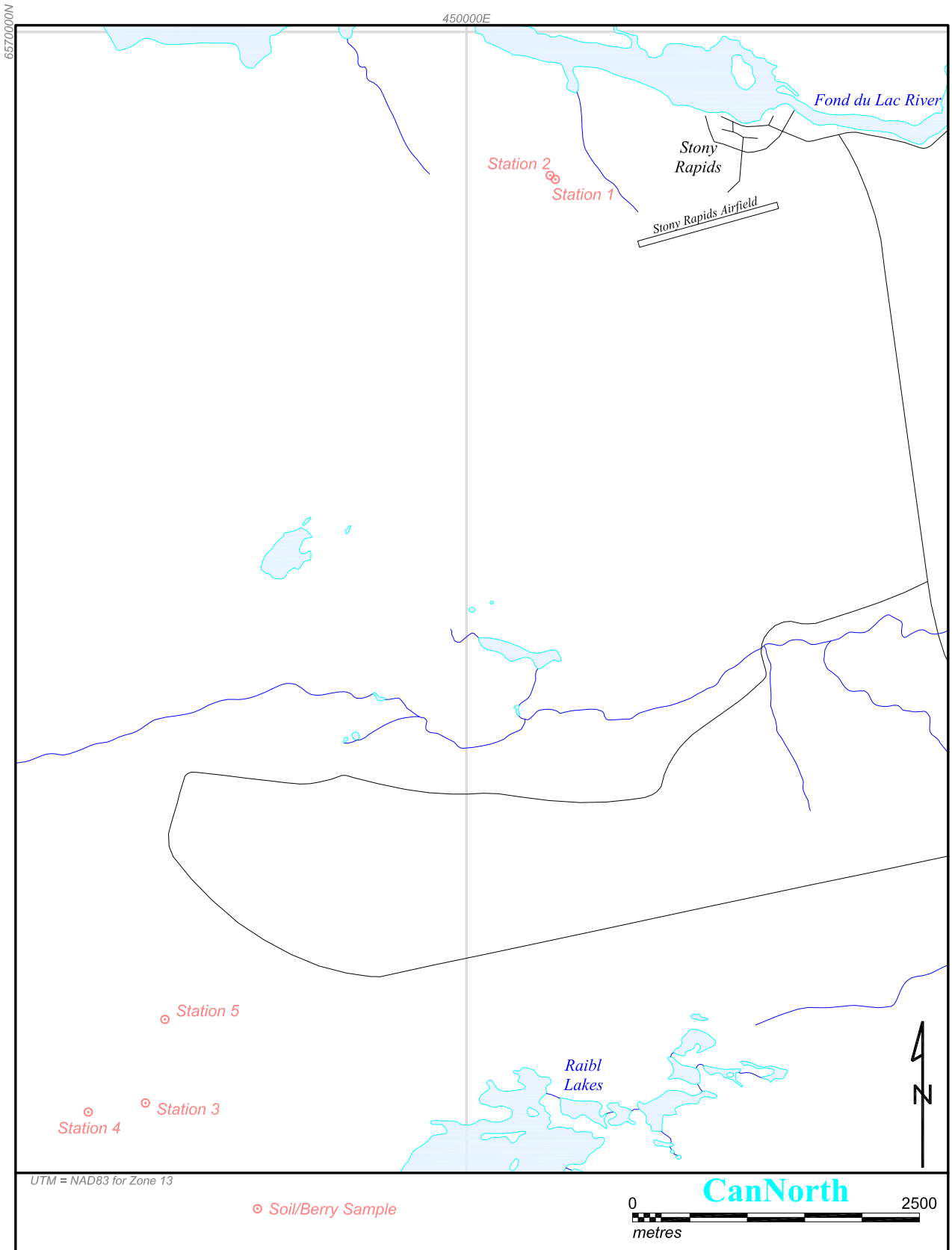

Figure 2
Locations of soil sampling stations in the Stony Rapids sampling area, September 2011.

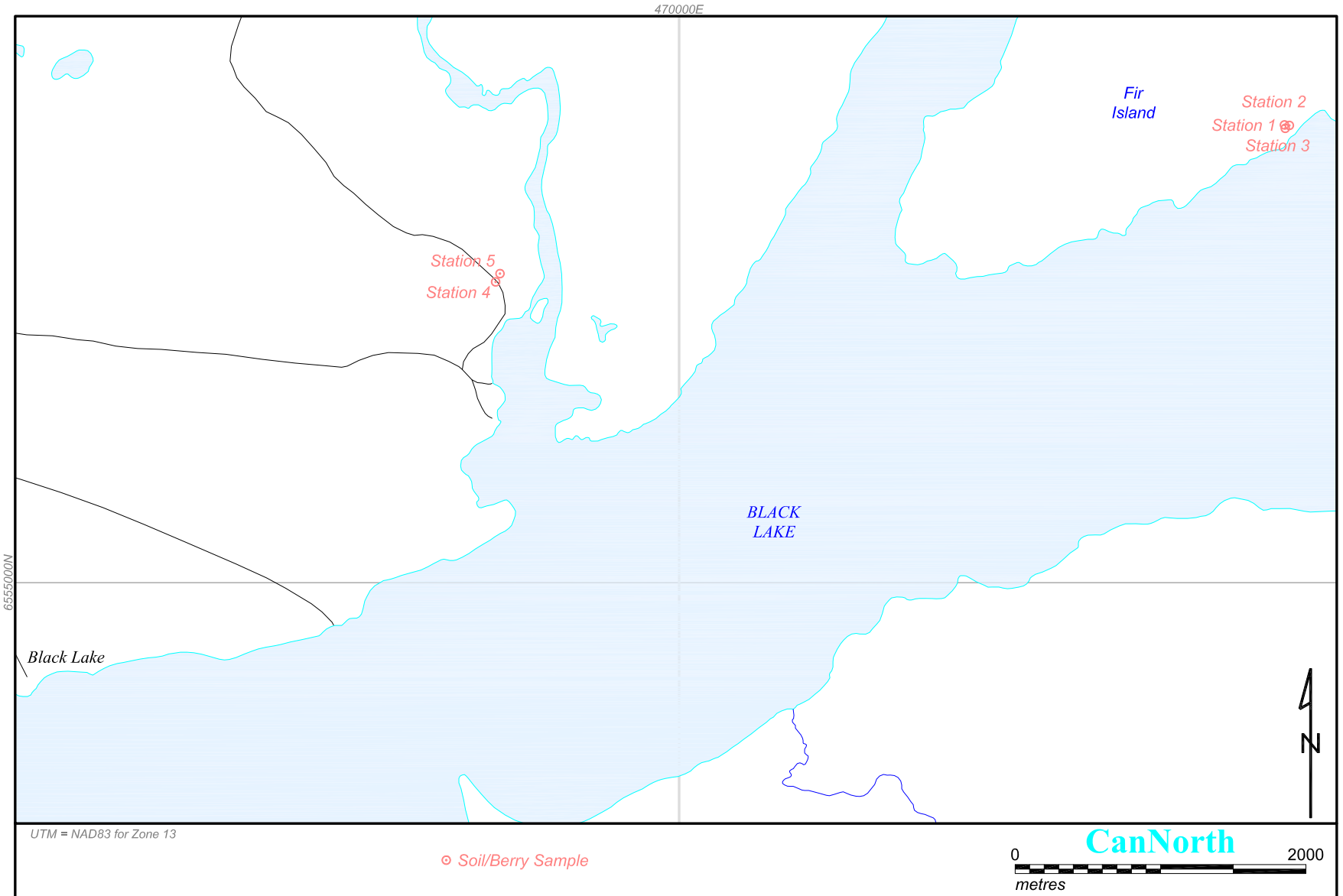

Figure 3
Locations of soil sampling stations in the Black Lake study area, September 2011.

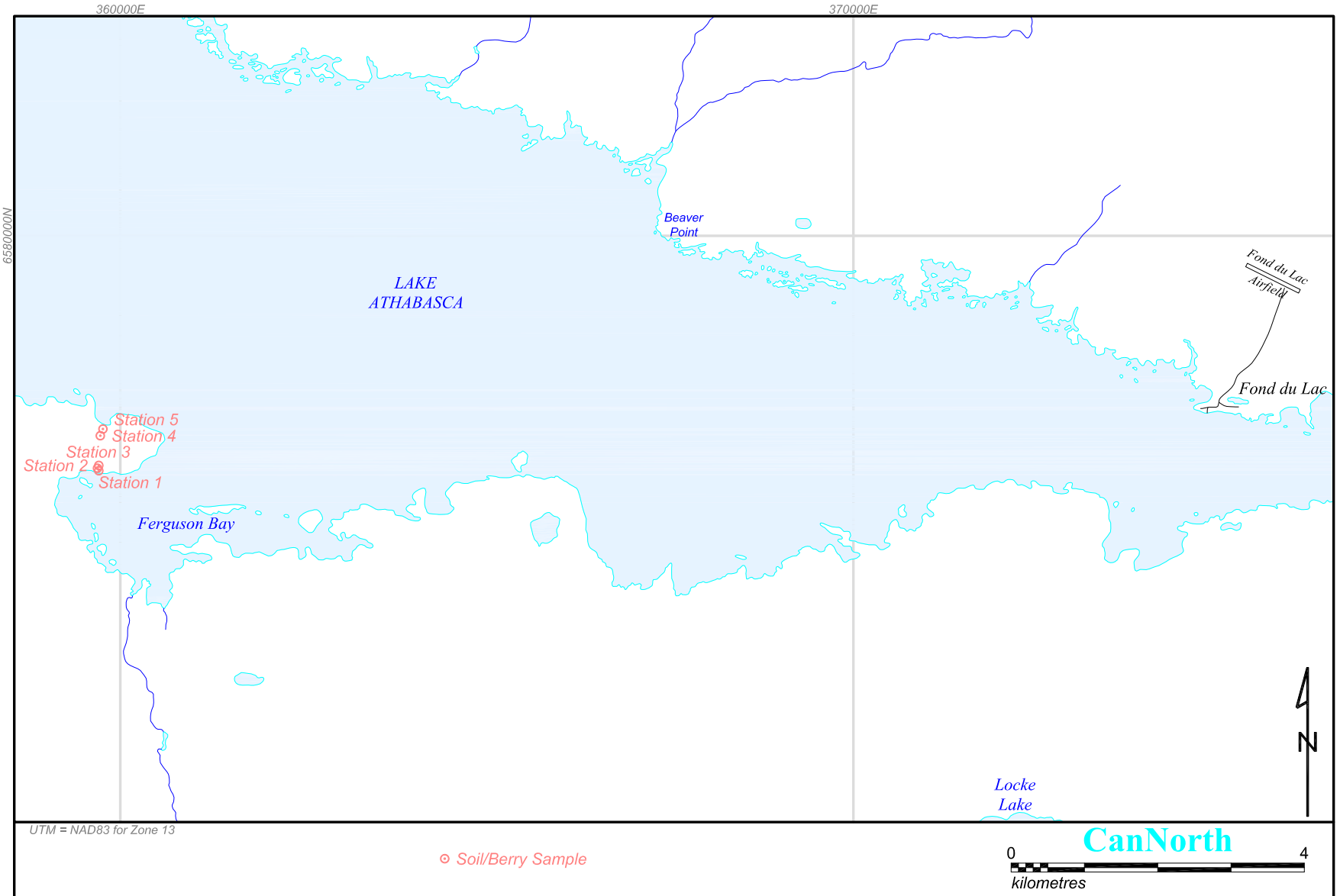

Figure 4
Locations of soil sampling stations in the Fond du Lac sampling area, September 2011.

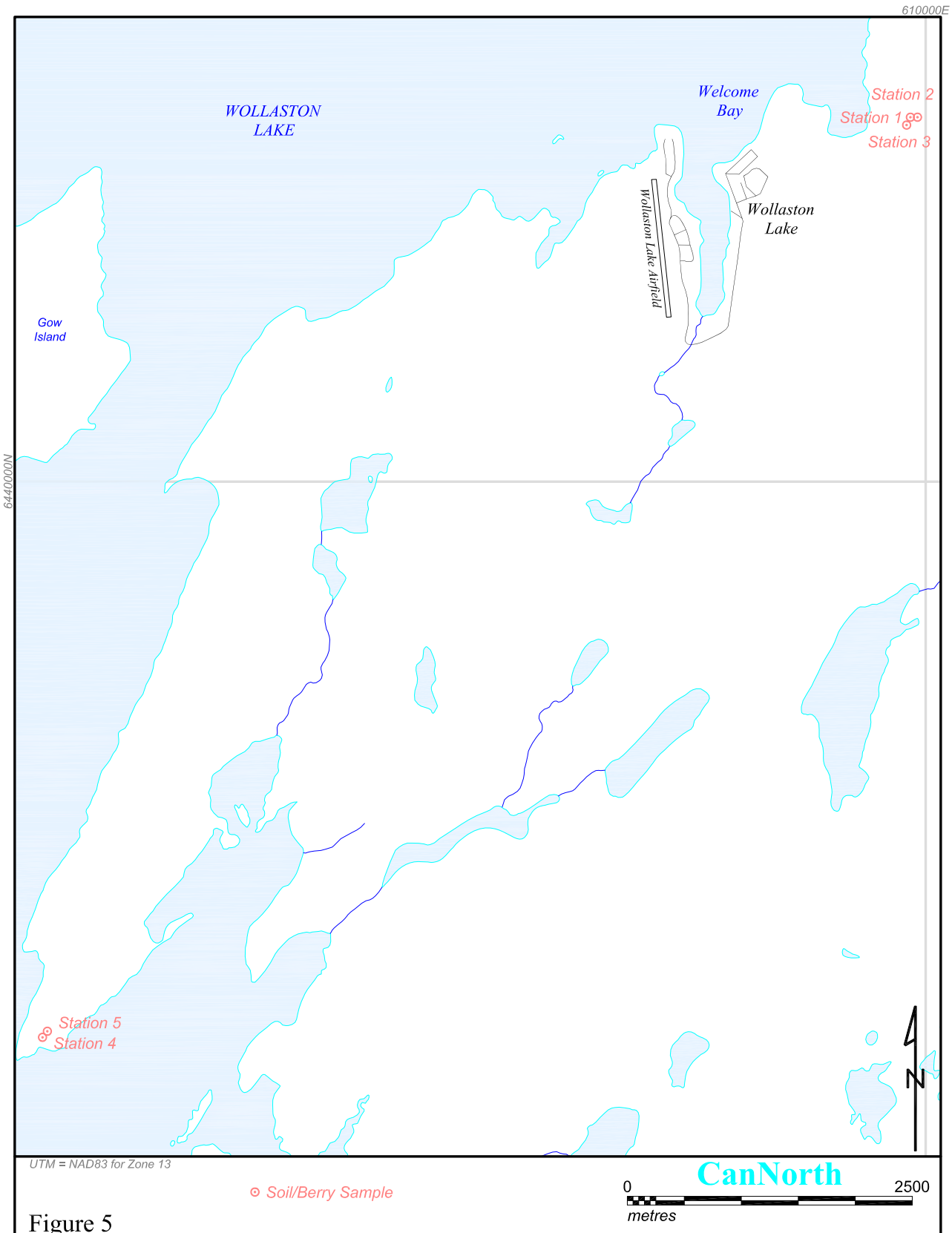

Figure 5
Locations of soil sampling stations in the Wollaston Lake/Hatchet Lake sampling area, September 2011.

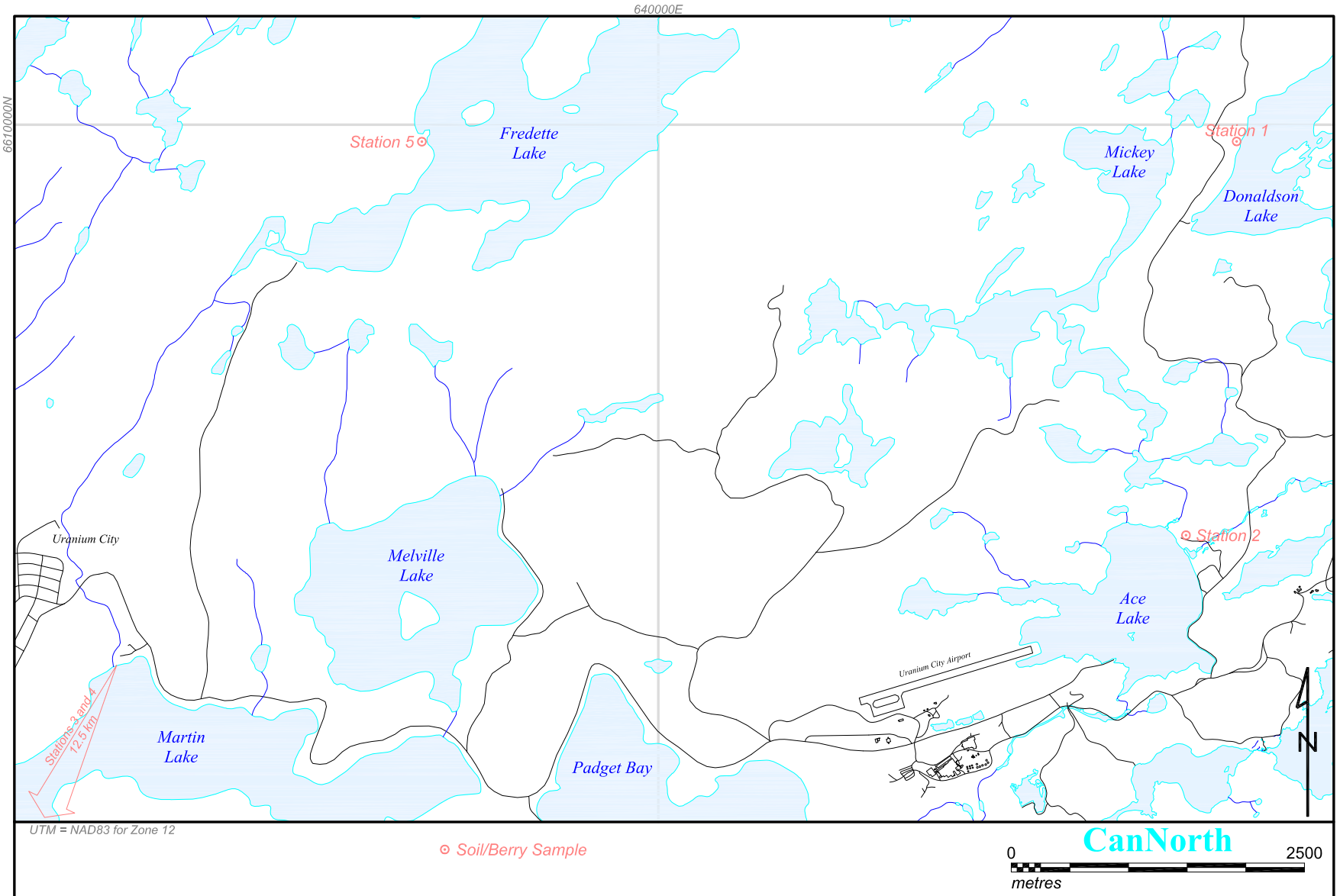

Figure 6
Locations of soil sampling stations 1, 2 and 5 in the Uranium City sampling area, October 2011.

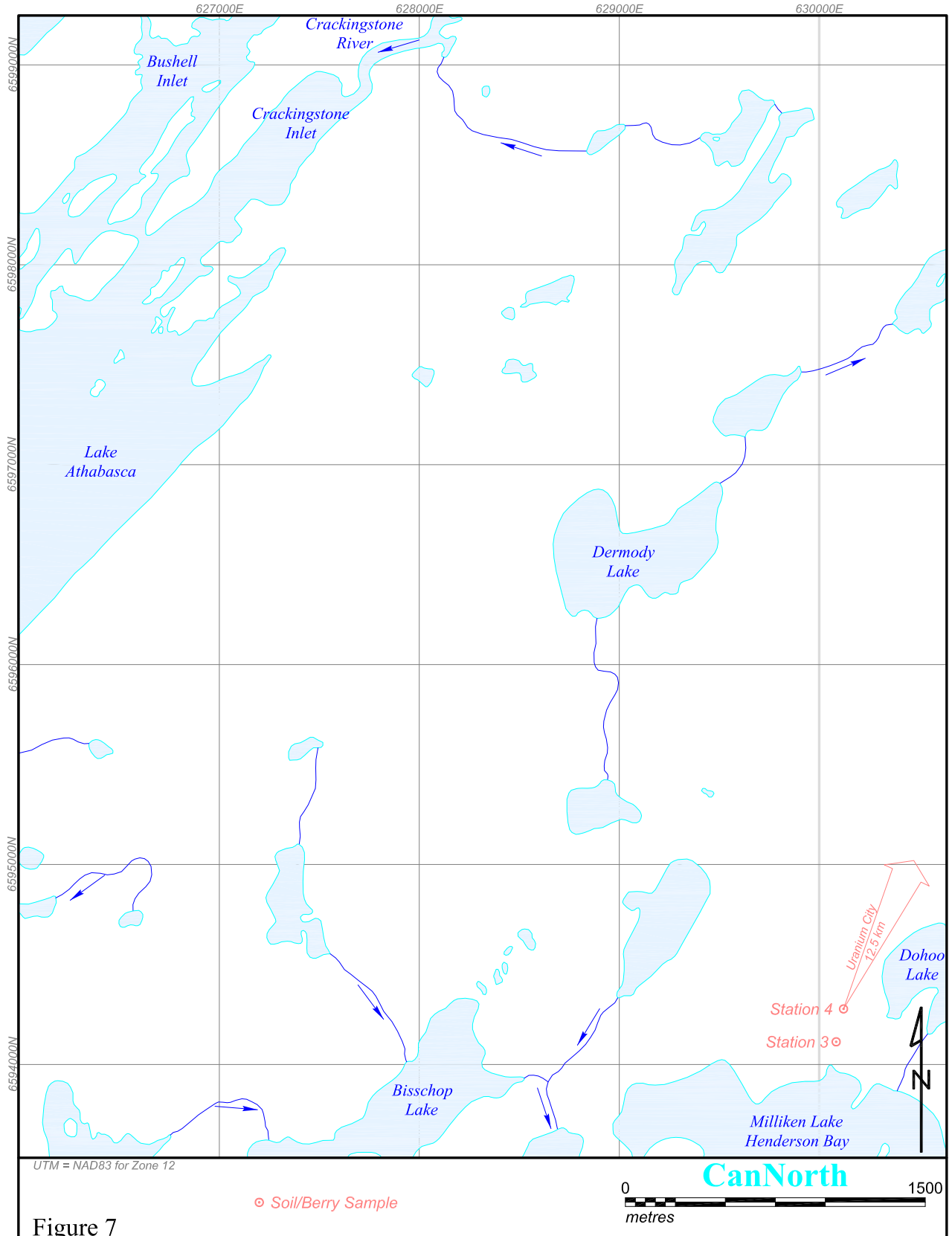

Figure 7
Locations of soil sampling stations 3 and 4 in the Uranium City sampling area, October 2011.

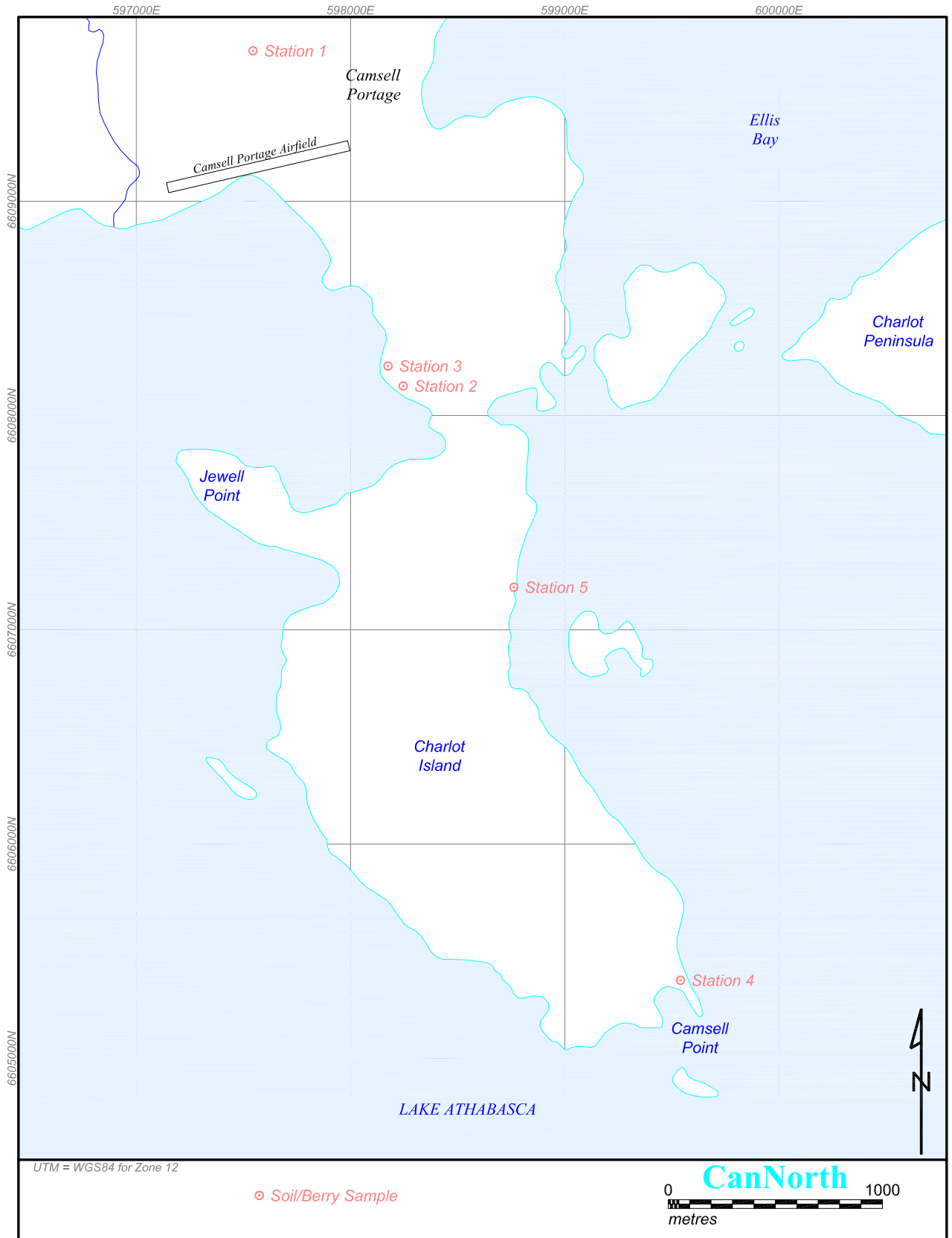

Figure 8
Locations of soil sampling stations in the Camsell Portage sampling area, October 2011.

TABLES

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TABLE 1

Analyses completed for soil profile samples collected at the community sampling locations, September/October 2011.

Horizon Type	Selected Analyses					
	Detailed Salinity[1]	$CaCo_3$ Equivalent	Organic Matter/ TOC	Particle Size	NPK Available[2]	Cation Exchange Capacity
Mineral Horizons[3]						
All surface organic horizons	✓		✓		✓	✓
All A horizons	✓	✓	✓	✓	✓	✓
All B horizons	✓	✓	✓	✓	✓	✓
All BC and C horizons	✓	✓		✓		
Organic Horizons						
All organic horizons (0-40 cm)	✓		✓		✓	
All organic horizons (40-60 cm)	✓					

[1] Detailed salinity included: pH (in saturated paste) (McKeague 1978), electrical conductivity in saturated paste (dS/m) (Carter and Gregorich 2008), and percent saturation (%) (Carter and Gregorich 2008).

[2] NPK available included: available nitrate (NO_3-N), available phosphate (PO_4-P), and available potassium (K).

[3] Horizon type for the mineral horizons includes all subdivisions of horizons found in the EARMP study area; i.e. Ae, Ahe, Ab, Aeb, etc.

TABLE 2

Soil profile, sample station locations, and classification information, September/October 2011.

Community	Station	UTM Coordinates[1]		Soil Classification[2]	Parent Material[3]	Regime	Assessment Date
		Easting	Northing				
Stony Rapids	1	450774	6568714	E.DYB	Glacial till overlain by fluvial	Burned	21-Sep-2011
	2	450729	6568749	E.DYB	Glacial till overlain by fluvial	Burned	21-Sep-2011
	3	447202	6560666	E.DYB	Glacial till overlain by fluvial	Burned	26-Sep-2011
	4	446704	6560587	E.EB	Glacial till overlain by fluvial	Burned	26-Sep-2011
	5	447372	6561395	E.EB	Glacial till and fluvial deposits	Burned	26-Sep-2011
Black Lake	1	474164	6558150	E.DYB	Glacial till	Burned	25-Sep-2011
	2	474198	6558146	DU.DYB	Glacial till	Burned	25-Sep-2011
	3	474169	6558126	E.EB	Glacial till	Burned	22-Sep-2011
	4	468738	6557069	E.DYB	Fluvial glacial till	Burned	23-Sep-2011
	5	468768	6557126	E.DYB	Glaciofluvial plain/morainal veneer	Burned	22-Sep-2011
Fond du Lac	1	359705	6576794	O.DYB	Eolian veneer/glaciofluvial plain/morainal plain	Burned	23-Sep-2011
	2	359686	6576827	E.DYB	Glaciofluvial/morainal plain	Burned	23-Sep-2011
	3	359705	6576866	E.DYB	Eolian veneer/fluvial morainal plain	Burned	24-Sep-2011
	4	359646	6577336	E.DYB	Eolian veneer/glaciofluvial outwash	Burned	24-Sep-2011
	5	359761	6577363	E.DYB	Eolian veneer/glaciofluvial/morainal plain	Burned	24-Sep-2011
Wollaston Lake/ Hatchet Lake	1	609867	6443197	E.EB	Fluvial glacial till	Unburned	27-Sep-2011
	2	609929	6443198	E.DYB	Fluvial	Unburned	27-Sep-2011
	3	609834	6443129	E.EB	Morainal	Unburned	27-Sep-2011
	4	602251	6435123	E.DYB	Fluvial	Burned	28-Sep-2011
	5	602294	6435176	E.DYB	Fluvial	Burned	28-Sep-2011
Uranium City	1	644931	6609858	E.EB	Fluvial	Unburned	30-Sep-2011
	2	644499	6606499	E.DYB	Fluvial	Unburned	30-Sep-2011
	3	630085	6594113	E.EB	Fluvial	Unburned	1-Oct-2011
	4	630122	6594277	E.EB	Glacial till with eolian deposits and bedrock	Unburned	1-Oct-2011
	5	637984	6609856	GLE.DYB	Glaciofluvial floodplain	Unburned	2-Oct-2011
Camsell Portage	1	597544	6609702	E.DYB	Fluvial	Unburned	3-Oct-2011
	2	598246	6608138	E.DYB	Lacustrine beach ridge	Unburned	4-Oct-2011
	3	598199	6608422	E.DYB	Lacustrine beach ridge	Unburned	4-Oct-2011
	4	599598	6605364	E.DYB	Fluvial	Unburned	5-Oct-2011
	5	598821	6607198	E.DYB	Lacustrine beach ridge	Unburned	5-Oct-2011

[1] UTM coordinates - NAD 83 Zone 13 for Stony Rapids, Black Lake, Fond du Lac, and Wollaston Lake.
UTM coordinates - NAD 83 Zone 12 for Uranium City and Camsell Portage.

[2] Soil classification to the subgroup level is abbreviated according to guidelines outlined in the Canadian System of Soil Classification (SCWG 1998).
Abbreviations are as follows: E.DYB: Eluviated Dystric Brunisol, E.EB: Eluviated Eutric Brunisol, DU.DYB: Duric Dystric Brunisol, O.DYB: Orthic Dystric Brunisol, GLE.DYB: Gleyed Eluviated Dystric Brunisol.

[3] Classified *in situ* according to the SCWG (1998), and verified/corrected as required based on particle size analysis of the C horizons with reference to the field notes, striations and sand lenses in the profiles.

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Stony Rapids				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	21-Sep-2011	21-Sep-2011	26-Sep-2011	26-Sep-2011	26-Sep-2011
Soil Classification[1]	E.DYB	E.DYB	E.DYB	E.EB	E.EB
Site Characteristics					
Parent Material	glacial till overlain by fluvial	glacial till overlain by fluvial	glacial till overlain by fluvial	glacial till overlain by fluvial	glacial till and fluvial deposits
Mapped Surficial Geology[2]	morainal plain	morainal plain	glaciofluvial outwash plain/morainal drumlinoid (eroded)/organic plain	glaciofluvial outwash plain/morainal drumlinoid (eroded)/organic plain	glaciofluvial outwash plain/morainal drumlinoid (eroded)/organic plain
Surface Expression	veneer	veneer	blanket	blanket	blanket
Ecozone	Boreal Shield	Boreal Shield	Boreal Shield	Boreal Shield	Boreal Shield
Ecosite[3]	BS3 (jack pine/blueberry/lichen: moderately fresh sand)	BS3 (jack pine/blueberry/lichen: moderately fresh sand)	BS3 (jack pine/blueberry/lichen: moderately fresh sand)	BS3 (jack pine/blueberry/lichen: moderately fresh sand)	BS3 (jack pine/blueberry/lichen: moderately fresh sand)
Fire Regime	recently burned	recently burned	recently burned	recently burned	recently burned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	80+	102+	73+	43+	59
Rooting Depth (cm)	60	68	50	43	53
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very well drained	very rapid	very rapid	moderately well	very well/rapid
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	very stony	excessively stony	very stony	moderately stony	exceedingly stony
Rockiness (%)	0	0	0	0	0
Slope Class (%)	9 - 15	9 - 15	0	0	0
Slope Aspect	northeast	northeast	-	-	-
Slope Descriptor	inclined	inclined	-	-	-
Pit Slope Location	upper slope	middle slope	level	level	level
Additional Site Notes[4]	Mineral soil is mixed throughout the LFH. Location is an old flood plain (clay silt overlying gravel parent material).	Darker band of slightly finer material at the Bm1 - Bm2 interface (sandy loam).	Little clay through Ae and Bm, but the finer texture and level terrain suggests lacustrine blanket deposit over fluvial or glacial - indicative of floodplain.	Clay film is loamy, not heavy clay, but is a finer texture. Discontinuous pores in Bm horizon (inped, simple, discontinuous, vesicular).	Fine textured layer at C - R interface (not a clay film; Munsell Colour: 10YR 8/6).

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Black Lake				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	25-Sep-2011	25-Sep-2011	22-Sep-2011	23-Sep-2011	22-Sep-2011
Soil Classification[1]	E.DYB	DU.DYB	E.EB	E.DYB	E.DYB
Site Characteristics					
Parent Material	glacial till	glacial till	glacial till	fluvial glacial till	glaciofluvial plain/morainal veneer
Mapped Surficial Geology[2]	bedrock (ridged)/morainal veneer/glaciofluvial (eskerine complex)	bedrock (ridged)/morainal veneer/glaciofluvial (eskerine complex)	bedrock (ridged)/morainal veneer/glaciofluvial (eskerine complex)	glaciolacustrine plain/morainal veneer	glaciolacustrine plain/morainal veneer
Surface Expression	veneer, hummocky	veneer, hummocky	veneer	inclined	blanket
Ecozone	Taiga Shield	Taiga Shield	Taiga Shield	Boreal Shield	Boreal Shield
Ecosite[3]	TS7 (white birch - black spruce/lingonberry: moderately dry loamy sand)	TS7 (white birch - black spruce/lingonberry: moderately dry loamy sand)	TS7 (white birch - black spruce/lingonberry: moderately dry loamy sand)	BS8 (black spruce - white birch/lichen: moderately dry sandy loam)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)
Fire Regime	recently burned	recently burned	recently burned	recently burned	recently burned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	74+	59+	93+	82+	92+
Rooting Depth (cm)	48	32	75	55	60
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very rapid	very rapid	well drained	well drained	very rapid
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	moderately stony	excessively stony	excessively stony	very stony	very stony
Rockiness (%)	0	0	0	0	0
Slope Class (%)	15 - 30	30 - 45	30 - 45	9 - 15	0
Slope Aspect	northwest	south	northwest	northeast	-
Slope Descriptor	strong slopes	very strong slopes	very stong slopes	moderate slopes	-
Pit Slope Location	middle slope	upper slope	upper slope	lower slope	level
Additional Site Notes[4]	Bm2 is almost a Btj - illuviation is obvious due to platy structure and fine texture, but not quite enough.	The bottom of the B horizon changes slightly to Munsell Colour 10YR 6/6.	The pit was located near lake and on a mound on an island.	Textures may change once soil is sieved to 2 mm - very gravelly.	Most stones are large boulders ranging from 15 - 40 cm in diameter (Bm1). Stones in IIC are smaller (5 - 20 cm diameter). Sand lenses throughout IC.

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Fond du Lac				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	23-Sep-2011	23-Sep-2011	24-Sep-2011	24-Sep-2011	24-Sep-2011
Soil Classification[1]	O.DYB	E.DYB	E.DYB	E.DYB	E.DYB
Site Characteristics					
Parent Material	eolian veneer/glaciofluvial plain/morainal plain	glaciofluvial/morainal plain	eolian veneer/fluvial morainal plain	eolian veneer/glaciofluvial outwash	eolian veneer/glaciofluvial/ morainal plain
Mapped Surficial Geology[2]	eolian ridged (dunes)/glaciolacustrine plain/morainal plain	eolian ridged (dunes)/glaciolacustrine plain/morainal plain	eolian ridged (dunes)/glaciolacustrine plain/morainal plain	eolian ridged (dunes)/glaciolacustrine plain/morainal plain	eolian ridged (dunes)/glaciolacustrine plain/morainal plain
Surface Expression	veneer, inclined	veneer	veneer	blanket	blanket
Ecozone	Boreal Shield	Boreal Shield	Boreal Shield	Boreal Shield	Boreal Shield
Ecosite[3]	BS5 (jack pine - white birch/feathermoss: moderately dry sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)
Fire Regime	recently burned	recently burned	recently burned	recently burned	recently burned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	92+	61+	96+	105+	103+
Rooting Depth (cm)	92+	23	77	44	45
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very rapid	very rapid	very rapid	very rapid	very rapid
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	very stony	very stony	exceedingly stony	very stony	very stony
Rockiness (%)	0	0	0	0	0
Slope Class (%)	9 - 15	9 - 15	9 - 15	2 - 5	2 - 5
Slope Aspect	southwest	southwest	southwest	north	north
Slope Descriptor	moderate slopes	moderate slopes	moderate slopes	very gentle slopes	very gentle slopes
Pit Slope Location	middle slope	toe	upper slope	middle slope	lower slope
Additional Site Notes[4]	Obvious signs of fire and wind action in the pit - buried LFH horizon noted. Appears to be a buried B under rock layer (from wave and wind action). Dead decaying tree in middle of pit. Pores in Ah are discontinuous. Pink sand lenses with a finer matrix in the C.	-	Fire and blown in material makes the LFH layer high in mineral - Ahe. Ae below is lighter and appears to be finer material.	Grey line at bottom of Ae - evidence of previous fire/flood to produce distinct line. Shield rock in Bm1. Bm2 occurs below shield rock - gravelly and stony, C is much smoother. Could almost consider the Bm1 an Ab except little evidence of Bm on top of it.	Buried A horizon is very irregular and not visible on all faces, may be evidence of collapse of old root systems in old fire before development of new Ae. Evidence of burn or organic layer between Ae and Ab.

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Wollaston Lake/Hatchet Lake				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	27-Sep-2011	27-Sep-2011	27-Sep-2011	28-Sep-2011	28-Sep-2011
Soil Classification[1]	E.EB	E.DYB	E.EB	E.DYB	E.DYB
Site Characteristics					
Parent Material	fluvial glacial till	fluvial	morainal	fluvial	fluvial
Mapped Surficial Geology[2]	bedrock (ridged)/organic plain/morainal veneer	bedrock (ridged)/organic plain/morainal veneer	bedrock (ridged)/organic plain/morainal veneer	bedrock (ridged)/organic plain/morainal veneer	bedrock (ridged)/organic plain/morainal veneer
Surface Expression	hummocky to level	hummocky to level	hummocky to level	blanket	blanket, slightly inclined
Ecozone	Boreal Shield	Taiga Shield	Taiga Shield	Boreal Shield	Boreal Shield
Ecosite[3]	BS7 (black spruce/blueberry/lichen: moderately dry sand)	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)	BS5 (jack pine - white birch/feathermoss: moderately dry sand)
Fire Regime	unburned	unburned	unburned	recently burned	recently burned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	56+	50+	63+	72+	65+
Rooting Depth (cm)	38	36	48	72	36
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very rapid	very rapid	well drained	very rapid	very rapid
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	very stony	moderately stony	moderately stony	nonstony	nonstony
Rockiness (%)	0	0	0	0	0
Slope Class (%)	0.5 - 2	0	0	0.5 - 2	0.5 - 2
Slope Aspect	southwest	-	-	southwest	northeast
Slope Descriptor	nearly level	-	-	nearly level	nearly level
Pit Slope Location	middle slope	level	level	toe/depression	toe
Additional Site Notes[4]	-	Between the B and C horizons there is a layer of gravel.	Upper level of Bfj is very deep compared to the underlying lighter level. Very gravelly throughout the profile; cementation is not occurring, but is reminiscent of the Black Lake Fir Island soil in texture and structure. The Bfj could almost be classified as a Bccjfj.	Repeat fires - two burn scars in soil profile. Coarse sand and gravel lenses in bottom of B and throughout C. In the C horizon there is evidence of a collased burrow.	Tonguing of Ae into Bfj. Vertical streaking thoughout the Bfj.

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Uranium City				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	30-Sep-2011	30-Sep-2011	1-Oct-2011	1-Oct-2011	2-Oct-2011
Soil Classification[1]	E.EB	E.DYB	E.EB	E.EB	GLE.DYB
Site Characteristics					
Parent Material	fluvial	fluvial	fluvial	glacial till with eolian deposits and bedrock	glaciofluvial floodplain
Mapped Surficial Geology[2]	bedrock (ridged)/morainal veneer/glaciofluvial veneer	bedrock (ridged)/morainal veneer/glaciofluvial veneer	glaciofluvial outwash plain	glaciofluvial outwash plain	glaciofluvial veneer
Surface Expression	undulating, blanket	rolling	level to slightly inclined	veneer	veneer
Ecozone	Taiga Shield	Taiga Shield	Taiga Shield	Taiga Shield	Taiga Shield
Ecosite[3]	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)	TS5 (trembling aspen/prickly rose - twinflower: moderately dry sand)	TS5 (trembling aspen/prickly rose - twinflower: moderately dry sand)	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)
Fire Regime	unburned	unburned	unburned	unburned	unburned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	115+	77+	114+	92	105
Rooting Depth (cm)	112	50	86	92	36
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very rapid	very rapid	very rapid	very rapid	moderately well
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	nonstony	nonstony	nonstony	nonstony	nonstony
Rockiness (%)	0	0	0	15	2
Slope Class (%)	70 - 100	70 - 100	2 - 5	2 - 5	2 - 5
Slope Aspect	southeast	north	east	east	northeast
Slope Descriptor	steep slopes	steep slopes	very gentle slope	very gently slopes	very gentle slopes
Pit Slope Location	upper slope	upper slope	middle slope	middle slope	middle slope
Additional Site Notes[4]	Bedrock cliffs near site about 30 m from pit.	Bm is slightly hydrophobic. Colour for the C is taken from the fine textured lenses. C is a riverbed/creekbed deposit, removal of all fine materials and then redeposited based on wave or high water action.	Btj has horizontal streaking of different textural and coloured layers - could be Ab layers but you would expect more organic matter associated with the buried A horizons so more likely deposition during high water levels at glacial melt period. Ae is slightly hydrophobic. Coarse fragments in B are at A and B interface.	Evidence of early cementation in bottom 2 - 5 cm of Bfj.	Fragipan layer is underlying what could be a C deposition or a B horizon because it is friable and the fragipan acts as a barrier to downward transport of clays. However, the horizon is very light in colour and transformation seems minimal so it is labelled as C. Mottling in Cg occurs likely only in high water years or during excessive rain because the bedrock acts as a barrier to flow instead of having a water table close to the surface, therefore not Gleysol because it is not found throughout the profile.

TABLE 3

Site description information of soil sample stations, September/October 2011.

Descriptive Parameter	Camsell Portage				
	Station 1	**Station 2**	**Station 3**	**Station 4**	**Station 5**
Assessment and Sampling Date	3-Oct-2011	4-Oct-2011	4-Oct-2011	5-Oct-2011	5-Oct-2011
Soil Classification[1]	E.DYB	E.DYB	E.DYB	E.DYB	E.DYB
Site Characteristics					
Parent Material	fluvial	lacustrine beach ridge	lacustrine beach ridge	fluvial	lacustrine beach ridge
Mapped Surficial Geology[2]	glaciofluvial outwash plain	glaciofluvial outwash plain	glaciofluvial outwash plain	glaciofluvial outwash plain	glaciofluvial outwash plain
Surface Expression	rolling	simple, rolling	simple, rolling	simple, undulating	simple, undulating
Ecozone	Taiga Shield	Taiga Shield	Taiga Shield	Boreal Shield	Boreal Shield
Ecosite[3]	TS6 (white birch - spruce/green alder: moderately fresh sand)	TS6 (white birch - spruce/green alder: moderately fresh sand)	TS4 (black spruce/lingonberry/ feathermoss: moderately dry silty sand)	BS6 (black spruce/blueberry/lichen: moderately dry sand)	BS15 (trembling aspen - white birch/green alder: moderately fresh loamy sand)
Fire Regime	unburned	unburned	unburned	unburned	unburned
Present Land Use	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland	unproductive woodland
Pit Depth (cm)	97+	58+	165+	86+	100+
Rooting Depth (cm)	85	58	127	86	100
Depth to Root Restriction (cm)	none	none	none	none	none
Depth to Permafrost (cm)	none	none	none	none	none
Soil Drainage	very rapid	very rapid	very rapid	very rapid	very rapid
Seepage (+/-)	-	-	-	-	-
Surface Stoniness	nonstony	nonstony	nonstony	nonstony	nonstony
Rockiness (%)	2	1	0	0	0
Slope Class (%)	2 - 5	15 - 30	15 - 30	2 - 5	15 - 30
Slope Aspect	east	south	northwest	south	northeast
Slope Descriptor	very gentle slopes	stong slopes	stong slopes	very gentle slopes	strong slopes
Pit Slope Location	lower slope	depression	upper slope	crest	upper slope
Additional Site Notes[4]	Ae is hydrophobic.	The colour difference between Bm and A or C is very low, some places have more distinct colour than others. Striations and spots are likely associated with stones.	Ahe is very hydrophobic.	O horizon is a deposited and buried LFH layer. May end up being a Bh depending on mineral mixing. Of is very obviously a burned horizon (buried). Ae is a non-soil gravel layer/lens - coloured from small crusts on larger stones.	Ae is hydrophobic. Soil is very pink due to minerals, not because of soil processes. Appears to be 7.5YR on first look but the gravel is pink, not the soil (quartz/purple sandstone).

[1] Soil classification to the subgroup level is abbreviated according to guidelines outlined in the Canadian System of Soil Classification (SCWG 1998).
[2] Surficial geology (1:250,000 scale) as identified by the Geological Atlas of Saskatchewan (GS 2012).
[3] Ecosite type classified according to McLaughlan et al. (2010).
[4] Note: Additional site notes includes information that was noted in the field; some changes to horizon designations were made based on review of soil chemistry and organic matter content from the laboratory analysis; and therefore the horizon designations noted here may not always correspond with what is indicated in Tables 2.3-7 to 2.3-13.

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Horizon Designation	Horizon Depth (cm)	Colour		pH	Effervescence	Field Texture[2]	von Post Decomposition	Humus Descriptors	Mottles				Roots		
				Munsell Colour[1]	Moisture						Colour	Abundance	Size	Contrast	Abundanc	Size	Orientation
Stony Rapids	1	LFH	1-0	n/a			none	ORG	-	-	-	-	-	-	-	-	-
		Ae	0-15	Reddish gray (10R 5.5/1.5)	moist	5	none	S	-	-	-	-	-	-	few	fine	vertical
		Bm	15-38	Dark yellowish brown (10YR 4.5/5)	moist	4.5	none	LS	-	-	-	-	-	-	plentiful	very fine	vertical
		IC	38-59	Grayish brown (10YR 5.5/2)	moist	5	none	SiS	-	-	-	-	-	-	very few	medium	vertical
		IIC	59-80+	Light brown (7.5YR 6/3.5)	moist	2.5	none	S	-	-	-	-	-	-	none	-	-
	2	LFH	3-0	n/a			none	ORG	-	-	-	-	-	-	few	very fine	random
		Ae	0-7	Light gray (10YR 7/1)	dry	5	none	LS	-	-	-	-	-	-	few	fine to coarse	random
		Bm1	7-39	Dark yellowish brown (10YR 4.5/6)	moist	3	none	LS	-	-	-	-	-	-	plentiful	medium to coarse	random
		Bm2	39-78	Yellowish brown (10YR 5/8)	moist	3	none	LS	-	-	-	-	-	-	very few	medium	random
		C	78-102+	Very pale brown (10YR 7/3)	dry	5	none	LS	-	-	-	-	-	-	none	-	-
	3	LFH	4-0	n/a			none	ORG	-	-	-	-	-	-	plentiful	medium	random
		Ahe	0-3	Grayish brown (10YR 5/2)	moist	4	none	SCL	-	-	-	-	-	-	plentiful	medium	horizontal
		Ae	3-7	Light gray (10YR 7/2)	moist	4	none	SL	-	-	-	-	-	-	few	fine to medium	random
		Bm	7-35	Yellow (10YR 7/6)	moist	4	none	SL	-	-	-	-	-	-	few	fine to medium	random
		C	35-76	Very pale brown (10YR 7/3)	moist	5	none	SL	-	-	-	-	-	-	very few	fine	random
		R	76	n/a	n/a		none	n/a	-	-	-	-	-	-	none	-	-
	4	LFH	6-0	n/a			none	ORG	-	-	-	-	-	-	few	medium to coarse	horizontal
		Ae	0-2	Light gray (10YR 7/1)	moist	4	none	LS	-	-	-	-	-	-	few	fine	random
		Bm	2-20	Dark yellowish brown (10YR 4.5/6)	moist	4	none	SL	-	-	-	-	-	-	few	fine to coarse	random
		Ab	20-24	Very pale brown (10YR 7/3)	moist	4	none	LS	-	-	-	-	-	-	very few	very fine	random
		Bfj	24-35	Yellowish brown (10YR 5/8)	moist	4	none	LS	-	-	-	-	-	-	very few	fine to medium	random
		C	35-43	Light yellowish brown (10YR 6/4)	moist	4	none	LS	-	-	-	-	-	-	very few	medium	random
		R	43	n/a	n/a		none	n/a	-	-	-	-	-	-	none	-	-
	5	LFH	4-0	n/a	-		none	n/a	-	-	-	-	-	-	few	medium to coarse	horizontal
		Ae	0-12	Light brownish gray (10YR 6/2)	wet	4	none	LS	-	-	-	-	-	-	few	medium to coarse	random
		Bfj	12-40	Brownish yellow (10YR 6/5) Dark yellowish brown (10YR 4/6)	moist	5	none	LS	-	-	-	-	-	-	plentiful	medium to very coarse	random
		C	40-68	Pale brown (10YR 6.5/2.5)	moist	4	none	LS	-	-	-	-	-	-	very few	fine	random
		R	68	n/a	-	n/a	none	n/a	-	-	-	-	-	-	none	-	-
Black Lake	1	LFH	9-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	very fine to medium	random
		Ae	0-5	Light brownish gray (10YR 6/2)	moist	5	none	SL	-	-	-	-	-	-	plentiful	fine to medium	random
		Bh	5-19	Dark yellowish brown (10YR 3/6)	moist	5	none	SL	-	-	-	-	-	-	plentiful	fine to medium	random
		Bfj	19-36	Pale brown (10YR 6/3)	moist	6	none	SiL	-	-	-	-	-	-	few	medium	horizontal
		C	36-74+	Very pale brown (10YR 7/4)	moist	6	none	LS	-	-	-	-	-	-	few	fine to medium	random
	2	LFH	7-0	n/a			none	n/a	-	-	-	-	-	-	abundant	very fine to coarse	random
		Ae	0-11	Light brownish gray (10YR 6/2)	moist	4	none	LS	-	-	-	-	-	-	plentiful	fine to medium	random
		Bhfjccj	11-48	Strong brown (7.5YR 4/5)	moist	5	none	LS	-	-	-	-	-	-	very few	fine	vertical
		C	48-59+	Light yellowish brown (10YR 6/4)	moist	6	none	S	-	-	-	-	-	-	none	-	-
	3	LFH	1-0	n/a			none	n/a	-	-	-	-	-	-	-	-	-
		Ae	0-7	Pinkish gray (7.5YR 7.5/1.5)	dry	5	none	LS	-	-	-	-	-	-	abundant	fine	random
		Bm1	7-28	Yellowish brown (10YR 5/8)	moist	4.5	none	LS	-	-	-	-	-	-	plentiful	fine to medium	vertical
		Bm2	28-71	Very pale brown (10YR 7/4)	moist	5	none	LS	-	-	-	-	-	-	very few	medium	horizontal
		C	71-93+	Very pale brown (10YR 8/2)	moist	2	none	LS	-	-	-	-	-	-	none	-	-
	4	LFH	5-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	fine to medium	random
		Ae	0-16	Light brownish gray (10YR 6.5/2)	moist	4	none	CL	-	-	-	-	-	-	few	fine to medium	random
		Bm	16-69	Dark yellowish brown (10YR 4/5)	moist	4	none	S	-	-	-	-	-	-	few	very fine to coarse	random
		C	69-82+	Light brownish gray (10YR 6.5/2)	moist	5	none	SL	-	-	-	-	-	-	none	none	none
	5	LFH	4-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	very fine	random
		Ae	0-6	Weak red (2.5YR 6.5/1.5)	very moist	4.5	none	SiS	-	-	-	-	-	-	plentiful	fine to very coarse	random
		Bm1	6-20	Yellowish brown (10YR 5/6)	dry	5	none	LS	-	-	-	-	-	-	few	medium	random
		Bm2	20-53	Brownish yellow (10YR 6.5/6)	dry	2.5	none	S	-	-	-	-	-	-	very few	fine	vertical
		IC (matrix)	53-81	Grayish brown (10YR 5.5/2.5)	moist	5.5	none	SCL	-	-	-	-	-	-	very few	fine	oblique
		IC (sand)	53-81	Brown (10YR 5/3)	moist	-	none	S	-	-	-	-	-	-	very few	fine	oblique
		IIC	81-92+	Yellowish brown (10YR 5/4)	moist	5	none	SL	-	-	-	-	-	-	none	none	none

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Horizon Designation	Horizon Depth (cm)	Colour		pH	Effervescence	Field Texture[2]	von Post Decomposition	Humus Descriptors	Mottles				Roots		
				Munsell Colour[1]	Moisture						Colour	Abundance	Size	Contrast	Abundanc	Size	Orientation
Fond du Lac	1	LFH	1-0	n/a			none	n/a	-	-	-	-	-	-	-	-	-
		IC	0-7	Light gray (10YR 7/2)	dry	5	none	S	-	-	-	-	-	-	plentiful	very fine	vertical
		Ahb	7-11	Very dark grayish brown (10YR 3/2)	moist	5	none	LS	-	-	-	-	-	-	plentiful	fine to medium	random
		IIBm1	11-39	Light brownish gray (10YR 6.5/2.5)	moist	5	none	S	-	-	-	-	-	-	few	medium to coarse	random
		IIBm2	39-78	Light yellowish brown (10YR 6/4)	moist	5	none	LS	-	-	-	-	-	-	few	fine to medium	oblique
		IIC	78-92+	Light brownish gray (10YR 6/2)	moist	5	none	SL	-	-	-	-	-	-	very few	fine	random
	2	LFH	2-0	n/a			none	n/a	-	-	-	-	-	-	few	very fine	random
		Ae	0-6	Pinkish white (7.5YR 8/2)	dry	5	none	LS	-	-	-	-	-	-	few	very fine to medium	random
		Bm	6-23	Pink (7.5YR 8/3)	slightly moist	4.5	none	LS	-	-	-	-	-	-	plentiful	very fine	vertical
		IC	23-46	Pale brown (10YR 6/3)	moist	5	none	SL	-	-	-	-	-	-	very few	coarse	horizontal
		IIC	46-61+	Very pale brown (10YR 7/3)	moist	5	none	SL	-	-	-	-	-	-	none	none	none
	3	LFH	1-0	n/a			none	n/a	-	-	-	-	-	-	few	very fine	random
		IAhe	0-8	Light gray (10YR 7/1)	dry	4	none	LS	-	-	-	-	-	-	plentiful	fine to coarse	random
		IIAe	8-40	Pinkish white (5YR 8/2)	dry	5	none	LS	-	-	-	-	-	-	few	very fine to fine	vertical
		IIBm	40-82	Very pale brown (10YR 7/4)	moist	5	none	LS	-	-	-	-	-	-	few	fine to medium	vertical
		IIC	82-96+	Light gray (10YR 7.5/2)	moist	5	none	LS	-	-	-	-	-	-	none	none	none
	4	LFH	1-0	n/a			none	n/a	-	-	-	-	-	-	very few	very fine	random
		IAe	0-23	Pinkish white (7.5YR 8/2)	moist	5	none	S	-	-	-	-	-	-	few	very fine to medium	random
		IIBm1	23-44	Pink (7.5YR 8/3)	moist	5	none	S	-	-	-	-	-	-	few	medium	random
		IIBm2	44-99	Yellowish brown (10YR 5.5/6)	moist	5	none	S	-	-	-	-	-	-	none	none	none
		IIC	99-105+	Very pale brown (10YR 7/4)	moist	5	none	LS	-	-	-	-	-	-	none	none	none
	5	LFH	1-0	n/a			none	n/a	-	-	-	-	-	-	few	very fine	random
		IAe	0-34	Pinkish white (7.5YR 8/2.5)	moist	4	none	LS	-	-	-	-	-	-	few	very fine to coarse	random
		IIAb	34-48	Light gray (10YR 7/2)	moist	5	none	LS	-	-	-	-	-	-	few	very fine to fine	random
		IIBm	48-89	Light yellowish brown (10YR 6.5/4)	moist	5	none	LS	-	-	-	-	-	-	none	none	none
		IIC	89-103+	Very pale brown (10YR 7/3)	moist	5	none	LS	-	-	-	-	-	-	none	none	none
Wollaston Lake/ Hatchet Lake	1	LFH	7-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	coarse	horizontal
		Ae	0-15	Light brownish gray (10YR 6/2)	slightly moist	4	none	LS	-	-	-	-	-	-	plentiful	medium to coarse	random
		Bfj	15-34	Brownish yellow (10YR 6.5/6) Dark yellowish brown (10YR 4/6)	moist	4	none	LS	-	-	-	-	-	-	few	fine	random
		C	34-56+	Pale brown (10YR 6.5/3)	moist	5	none	LS	-	-	-	-	-	-	very few	very fine	random
	2	LFH	6-0	n/a			none	n/a	-	-	-	-	-	-	abundant	medium to very coarse	horizontal
		Ae	0-6	Light gray (10YR 7/2)	moist	4	none	SL	-	-	-	-	-	-	plentiful	medium	horizontal
		Bfj	6-33	Brownish yellow (10YR 6/7) Yellowish brown (10YR 5/8)	moist	4	none	LS	-	-	-	-	-	-	plentiful	very fine	random
		C	33-50+	Very pale brown (10YR 7/3)	moist	4	none	LS	-	-	-	-	-	-	none	none	none
	3	LFH	4-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	coarse	horizontal
		Ae	0-9	Grayish brown (10YR 5.5/2)	moist	4	none	LS	-	-	-	-	-	-	plentiful	fine to medium	horizontal
		Bfj	9-41	Brownish yellow (10YR 6/6) Dark yellowish brown (10YR 4/5)	moist	4	none	S	-	-	-	-	-	-	few	fine to medium	random
		C	41-63+	Light yellowish brown (10YR 6/4)	moist	4	none	LS	-	-	-	-	-	-	none	none	none
	4	LFH	3-0	n/a			none		-	-	-	-	-	-	plentiful	medium to coarse	horizontal
		Ahe	0-6	Brownish yellow (10YR 6/6)	moist	4	none	LS	-	-	-	-	-	-	plentiful	medium to coarse	horizontal
		Aeb	6-9	Light gray (10YR 7/2)	moist	5	none	LS	-	-	-	-	-	-	few	fine	horizontal
		Bfj	9-54	Yellowish brown (10YR 5/8) Very pale brown (10YR 7/5)	dry	4	none	SCL	-	-	-	-	-	-	few	fine to medium	horizontal
		C	54-72+	Very pale brown (10YR 7/3)	slightly moist	4	none	LS	-	-	-	-	-	-	very few	very fine	random
	5	LFH	2-0	n/a			none	n/a	-	-	-	-	-	-	few	medium	horizontal
		Ae	0-6	Light brownish gray (10YR 6/2)	moist	4	none	SCL	-	-	-	-	-	-	very few	fine	random
		Bfj	6-44	Dark yellowish brown (10YR 4/6) Brownish yellow (10YR 6.5/6)	moist	4	none	LS	-	-	-	-	-	-	very few	medium	horizontal
		C	44-65+	Pale brown (10YR 6.5/3.5)	moist	4	none	LS	-	-	-	-	-	-	none	none	none

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Horizon Designation	Horizon Depth (cm)	Colour		pH	Effervescence	Field Texture[2]	von Post Decomposition	Humus Descriptors	Mottles				Roots		
				Munsell Colour[1]	Moisture						Colour	Abundance	Size	Contrast	Abundanc	Size	Orientation
Uranium City	1	LFH	2-0	n/a			none	n/a	-	-	-	-	-	-	abundant	medium to coarse	horizontal
		Ahe	0-3	Yellowish brown (10YR 5/4)	moist	4	none	LS	-	-	-	-	-	-	abundant	fine to medium	horizontal
		Ae	3-7	Very pale brown (10YR 7/3)	dry	4	none	LS	-	-	-	-	-	-	abundant	fine	horizontal
		Bm1	7-46	Yellowish brown (10YR 5/7)	moist	4	none	LS	-	-	-	-	-	-	plentiful	medium to coarse	horizontal
		Bm2	46-63	Light yellowish brown (10YR 6/5)	moist	4	none	S	-	-	-	-	-	-	plentiful	medium	vertical
		C	63-115+	Very pale brown (10YR 7/3)	slightly moist	4	none	LS	-	-	-	-	-	-	plentiful	fine to medium	vertical
	2	LFH	2-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium	horizontal
		Ahe	0-4	Yellowish brown (10YR 5/5)	moist	4	none	S	-	-	-	-	-	-	plentiful	fine to medium	horizontal
		Ae	4-6	Pale brown (10YR 6/3)	moist	3	none	LS	-	-	-	-	-	-	plentiful	fine to medium	horizontal
		Bm	6-42	Yellow (10YR 7/7)	slightly moist	4	none	LS	-	-	-	-	-	-	few	medium to very coarse	horizontal
		C	42-77+	Light gray (10YR 7/2.5)	moist	4	none	S	-	-	-	-	-	-	few	medium	horizontal
	3	LFH	5-0	n/a			none	n/a	-	-	-	-	-	-	abundant	medium to very coarse	random
		Ae	0-13	Light gray (10YR 7.5/2)	very dry	4	none	LS	-	-	-	-	-	-	plentiful	medium to very coarse	horizontal
		Btj	13-104	Light yellowish brown (10YR 6/4)	dry	4	none	SCL	-	-	-	-	-	-	very few	medium to coarse	horizontal
		C	104-114+	Pale brown (10YR 6/3)	dry	5	none	LS	-	-	-	-	-	-	none	none	none
	4	LFH	9-0	n/a			none	n/a	-	-	-	-	-	-	abundant	fine to medium	random
		Ae	0-11	Light gray (10YR 7/2)	slightly moist	5	none	SCL	-	-	-	-	-	-	plentiful	fine to very coarse	random
		Bfj	11-91	Yellowish brown (10YR 5.5/7)	moist	4	none	SL	-	-	-	-	-	-	plentiful	medium to very coarse	oblique
		C	91-92	Dark yellowish brown (10YR 4.5/4)	moist	5	none	SL	-	-	-	-	-	-	abundant	fine	horizontal
		R	92	n/a	n/a	n/a	none	n/a	-	-	-	-	-	-	none	none	none
	5	LFH	9-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium to very coarse	random
		Ae	0-16	White (10YR 8/1)	slightly moist	4	none	SC	-	-	-	-	-	-	few	medium	random
		IIBm	16-35	Yellowish brown (10YR 5/7)	moist	4	none	LS	-	-	-	-	-	-	very few	medium	vertical
		IIIBm	35-51	Brownish yellow (10YR 6/5)	moist	4	none	SCL	-	-	-	-	-	-	few	medium	horizontal
		IIIBx[3]	51-53	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		IVBgj	53-99	Brownish yellow (10YR 6/6)	moist	4	none	LS	-	-	-	-	-	-	none	none	none
		Cg	99-105	Light yellowish brown (10YR 6/4)	moist	5	none	SL	-	-	Dark brown (7.5YR 3/3)	common	fine	prominent	none	none	none
		R	105	n/a	n/a	n/a	none	n/a	-	-	-	-	-	-	none	none	none
Camsell Portage	1	LFH	8-0	n/a			none	n/a	-	-	-	-	-	-	abundant	medium to coarse	random
		Ae	0-7	Very pale brown (10YR 7/3)	dry	5	none	LS	-	-	-	-	-	-	plentiful	fine to coarse	horizontal
		Bm	7-83	Yellowish brown (10YR 5/7)	moist	4	none	S	-	-	-	-	-	-	abundant	very fine to medium	random
		C	83-97+	Yellowish brown (10YR 5.5/4)	moist	5	none	SL	-	-	-	-	-	-	plentiful	medium	horizontal
	2	LFH	20-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium to very coarse	random
		Ae	0-24	Very pale brown (10YR 7/3)	dry	5	none	LS	-	-	-	-	-	-	few	medium	horizontal
		Bm	24-37	Light yellowish brown (10YR 6/5)	slightly moist	5	none	SL	-	-	-	-	-	-	very few	fine	horizontal
		C	37-58+	Pale brown (10YR 6/3)	moist	5	none	SCL	-	-	-	-	-	-	very few	fine	random
	3	LFH	7-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium to coarse	horizontal
		Ahe	0-11	Grayish brown (10YR 5.5/2.5)	very dry	5	none	SL	-	-	-	-	-	-	plentiful	medium	random
		Bm	11-143	Very pale brown (10YR 7/4)	slightly moist	5	none	LS	-	-	-	-	-	-	few	medium	horizontal
		C	143-165+	Very pale brown (10YR 7/3.5)	moist	5	none	LS	-	-	-	-	-	-	none	none	none
	4	LFH	11-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium	horizontal
		Ae	0-22	Very pale brown (10YR 7/4)	moist	4	none	G	-	-	-	-	-	-	plentiful	medium to coarse	random
		Of	22-50	n/a	very moist	4	none	n/a	4	moder (thick, xeric)	-	-	-	-	plentiful	fine to medium	random
		Aeb	50-62	Very pale brown (10YR 8/4)	wet	5	none	G	-	-	-	-	-	-	few	fine	random
		Btj	62-69	Light gray (10YR 7/2)	moist	4	none	SCL	-	-	-	-	-	-	few	fine to medium	horizontal
		C	69-86+	Light yellowish brown (10YR 6/4)	wet	5	none	S	-	-	-	-	-	-	few	medium	horizontal
	5	LFH	18-0	n/a			none	n/a	-	-	-	-	-	-	plentiful	medium to very coarse	horizontal
		Ae	0-19	Pale brown (10YR 6/3)	very dry	4	none	LS	-	-	-	-	-	-	plentiful	fine to very coarse	random
		Bm	19-92	Brown (10YR 5.5/3)	dry	5	none	LS	-	-	-	-	-	-	abundant	fine to medium	horizontal
		C	92-100+	Light yellowish brown (10YR 6/4)	slightly moist	5	none	S	-	-	-	-	-	-	very few	fine	random

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Pores			Clay Films				Coarse Fragments		Structure[3]			Consistence
		Abundance	Size	Orientation	Frequency	Thickness	Location	Colour	Content (%)	Class Name	Distinctness	Type	Class	
Stony Rapids	1	-	-	-	-	-	-	-	15	very stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	40	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	<1	slightly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	0	nonstony	weak	subangular blocky	medium	friable
		-	-	-	-	-	-	-	5	very stony	structureless	loose	-	loose
	2	-	-	-	-	-	-	-	50	excessively stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	30	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	5	very stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	35	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	45	exceedingly stony	structureless	loose	-	loose
	3	-	-	-	-	-	-	-	5	very stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	moderate	angular blocky	moderate	friable
		-	-	-	-	-	-	-	<1	moderately stony	moderate	angular blocky	coarse	friable
		-	-	-	-	-	-	-	10	very stony	moderate to strong	blocky	medium to coarse	very friable
		-	-	-	-	-	-	-	35	exceedingly stony	moderate	angular blocky	medium	friable
		-	-	-	-	-	-	-	-	-	-	-	-	-
	4	-	-	-	-	-	-	-	2	moderately stony	n/a	-	-	-
		-	-	-	-	-	-	-	20	exceedingly stony	structureless	loose	-	loose
		very fine	few	random	-	-	-	-	10	very stony	strong	angular blocky	medium to coarse	friable
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	5	very stony	moderate to strong	angular blocky	medium to coarse	firm
		-	-	-	continuous	very thick (1 cm)	bedrock - C interface	10YR 6/5	20	exceedingly stony	weak	blocky	fine	very friable
		-	-	-	-	-	-	-	n/a	-	n/a	-	-	-
	5	-	-	-	-	-	-	-	25	exceedingly stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	70	excessively stony	moderate	subangular blocky	fine	friable
		-	-	-	-	-	-	-	20	exceedingly stony	moderate	blocky	medium	friable
		-	-	-	-	-	-	-	15	very stony	weak	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	none	-	n/a	n/a	n/a	n/a
Black Lake	1	-	-	-	-	-	-	-	2	moderately stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	10	very stony	very weak	blocky	fine	very friable
		-	-	-	-	-	-	-	7	very stony	very weak	blocky	medium	very friable
		-	-	-	-	-	-	-	2	moderately stony	weak	platy	very fine	very friable
		-	-	-	-	-	-	-	20	exceedingly stony	structureless	loose	-	loose
	2	-	-	-	-	-	-	-	60	excessively stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	40	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	60	excessively stony	moderate	angular blocky	medium to coarse	friable
		-	-	-	-	-	-	-	70	excessively stony	weak	subangular blocky	very fine	friable
	3	-	-	-	-	-	-	-	60	excessively stony	n/a			
		-	-	-	-	-	-	-	75	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	45	exceedingly stony	very weak	subangular blocky	fine to medium	loose
		-	-	-	-	-	-	-	30	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	10	very stony	structureless	loose	-	loose
	4	-	-	-	-	-	-	-	5	very stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	75	excessively stony	very weak	blocky	fin	friable
		-	-	-	-	-	-	-	80	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	85	excessively stony	-	massive	-	friable
	5	-	-	-	-	-	-	-	4	very stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	very weak	platy	very fine	friable
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	40	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	2	moderately stony	weak to moderate	subangular blocky	fine	firm
		-	-	-	-	-	-	-	2	moderately stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	5	very stony	weak	subangular blocky	very fine	friable

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Pores			Clay Films				Coarse Fragments		Structure[3]			Consistence
		Abundance	Size	Orientation	Frequency	Thickness	Location	Colour	Content (%)	Class Name	Distinctness	Type	Class	
Fond du Lac	1	-	-	-	-	-	-	-	3	moderately stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		fine	very few	horizontal	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	10	very stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	30	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	10	very stony	weak to moderate	angular blocky	fine	friable
	2	-	-	-	-	-	-	-	1	moderately stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	10	very stony	weak to moderate	blocky	medium	loose
		-	-	-	-	-	-	-	25	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	5	very stony	moderate	subangular blocky	medium	friable
		-	-	-	-	-	-	-	0.1	slightly stony	moderate	angular blocky	medium	friable
	3	-	-	-	-	-	-	-	35	exceedingly stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	40	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	35	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	20	exceedingly stony	very weak	blocky	very fine	very friable
		-	-	-	-	-	-	-	15	very stony	structureless	loose	-	loose
	4	-	-	-	-	-	-	-	5	very stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	1	moderately stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	50	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	30	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	3	moderately stony	structureless	loose	-	loose
	5	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	2	moderately stony	weak	subangular blocky	medium	very friable
		-	-	-	-	-	-	-	5	very stony	moderate	subangular blocky	fine to medium	friable
		-	-	-	-	-	-	-	35	exceedingly stony	weak	subangular blocky	medium	very friable
		-	-	-	-	-	-	-	10	very stony	structureless	loose	-	loose
Wollaston Lake/ Hatchet Lake	1	-	-	-	-	-	-	-	2	moderately stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	10	very stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	25	exceedingly stony	moderate	blocky	fine	very friable
		-	-	-	-	-	-	-	35	exceedingly stony	structureless	loose	-	loose
	2	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	5	very stony	weak	platy	fine	very friable
		-	-	-	-	-	-	-	7	very stony	moderate	subangular blocky	medium	friable
		-	-	-	-	-	-	-	1	moderately stony	structureless	loose	-	loose
	3	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	10	very stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	45	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	10	very stony	moderate	blocky	fine	very friable
	4	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	weak	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	0	nonstony	moderate	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	0	nonstony	moderate to strong	angular blocky	coarse	very friable
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
	5	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	strong	blocky	medium to coarse	friable
		-	-	-	-	-	-	-	0	nonstony	moderate	blocky	medium	very friable
		-	-	-	-	-	-	-	0	nonstony	strong	angular blocky	medium to coarse	very friable

TABLE 4

Morphological characteristics for soil sample stations in the EARMP sampling locations, September/October 2011.

Community	Station	Pores			Clay Films				Coarse Fragments		Structure[3]			Consistence
		Abundance	Size	Orientation	Frequency	Thickness	Location	Colour	Content (%)	Class Name	Distinctness	Type	Class	
Uranium City	1	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	<1	slightly stony	strong	blocky	medium to coarse	very friable
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	<1	slightly stony	moderate	angular blocky	medium to coarse	very friable
	2	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	0	nonstony	very weak	blocky	fine	very friable
		-	-	-	-	-	-	-	0	nonstony	very weak	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
	3	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		very few	coarse	random	-	-	-	-	1	moderately stony	strong	subangular blocky	medium	firm
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
	4	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	weak	angular blocky	medium	very friable
		very few	coarse	random	-	-	-	-	3	moderately stony	moderate	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	0	nonstony	-	massive	-	-
		-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a
	5	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	2	moderately stony	strong	blocky	fine to medium	friable
		-	-	-	-	-	-	-	0	nonstony	weak	blocky	fine to medium	very friable
		-	-	-	-	-	-	-	0	nonstony	strong	subangular blocky	fine	very friable
		-	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	-	0	nonstony	moderate	platy	medium	firm
		-	-	-	-	-	-	-	0	nonstony	moderate	angular blocky	fine to medium	friable
		-	-	-	-	-	-	-	n/a	n/a	n/a	n/a	n/a	n/a
Camsell Portage	1	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	40	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	80	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	0	nonstony	moderate	angular blocky	fine	very friable
	2	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	very weak	blocky	medium to coarse	very friable
		-	-	-	-	-	-	-	10	very stony	moderate	angular blocky	very fine	very friable
		-	-	-	-	-	-	-	45	exceedingly stony	moderate	blocky	fine	friable
	3	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	0	nonstony	structureless	loose	-	loose
		-	-	-	-	-	-	-	0	nonstony	moderate	blocky	medium to coarse	very friable
		-	-	-	-	-	-	-	0	nonstony	very weak	blocky	medium to coarse	very friable
	4	-	-	-	-	-	-	-	0	nonstony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	95	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	85	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	90	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	60	excessively stony	strong	blocky	fine to medium	friable
		-	-	-	-	-	-	-	70	excessively stony	structureless	loose	-	loose
	5	-	-	-	-	-	-	-	1	moderately stony	n/a	n/a	n/a	n/a
		-	-	-	-	-	-	-	70	excessively stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	50	exceedingly stony	structureless	loose	-	loose
		-	-	-	-	-	-	-	85	excessively stony	structureless	loose	-	loose

[1] Colour values were determined using the Munsell Soil Color Charts (Munsell Color 1994).

[2] Texture abbreviations: ORG - organic; S - sand; LS - loamy sand; SL - sandy loam; SiL - silty loam; SiS - silty sand; SCL - sandy clay loam; SL - sandy loam.

[3] Note: Station 5 was edited post-field work and lab analyses based on further literature search into fragipan formation; therefore the IIIBmx horizon does not have any morphological data available.

TABLE 5

Soil chemistry and physical characteristic results from sampling stations located near Stony Rapids, September/October 2011.

Soil Order		Brunisol									
Soil Classification		Eluviated Dystric Brunisol					Eluviated Dystric Brunisol				
Station		Station 1					Station 2				
Horizon		LFH	Ae	Bm	IC	IIC	LFH	Ae	Bm1	Bm2	C
Field Measurements	**Units**										
Depth	cm	1-0	0-15	15-38	38-59	59-80+	3-0	0-7	7-39	39-78	78-102+
Field pH	pH		5	4.5	5	2.5		5	3	3	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon											
Total Organic Carbon	%	27.60	0.21	0.20	-	-	26.10	0.32	0.42	<0.1	-
Inorganic Carbon	%	0.23	<0.1	0.11	<0.1	<0.1	0.15	<0.1	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.95	0.83	0.94	<0.7	<0.7	1.23	0.78	0.79	<0.7	<0.7
Total Carbon by Combustion	%	27.8	0.2	0.3	-	-	26.3	0.3	0.4	<0.1	-
Loss on Ignition @ 375ºC	%	52.2	<1	<1	-	-	37.8	<1	<1	<1	-
Organic Matter	%	41.0	<1	<1	-	-	29.7	<1	<1	<1	-
Particle Size/Texture											
% Sand (2.0 mm - 0.05 mm)	%	-	88.90	73.90	48.60	90.70	-	90.00	86.40	93.40	90.60
% Silt (0.05 mm - 2 mm)	%	-	10.30	24.10	47.90	7.79	-	9.68	11.90	4.87	8.34
% Clay (<2 mm)	%	-	0.79	2.03	3.49	1.46	-	0.31	1.65	1.77	1.10
Texture[1]	-	n/a	S	LS	SL	S	n/a	S	S	S	S
Plant-available Nutrients											
Available Nitrate-N	mg/kg	<8	<2	<2	-	-	<10	<2	<2	<2	-
Available Phosphate-P	mg/kg	18.7	<2	8.8	-	-	20.5	2.1	10.5	6.1	-
Available Potassium-K	mg/kg	337	17	11	-	-	147	27	12	11	-
Cation Exchange Capacity	meq/100 g	53.10	0.95	2.01	-	-	48.30	1.07	1.56	<0.8	-
Exchangeable Cations and Saturated Paste Extractables											
pH in Saturated Paste	pH	4.31	4.41	5.33	4.52	6.33	4.64	4.70	4.01	4.06	6.21
Conductivity Sat. Paste	dS m^{-1}	0.17	<0.1	<0.1	0.35	0.57	0.12	0.12	1.08	0.96	0.11
Sodium Absorption Ratio (SAR)	SAR	<0.2	0.97	IN	0.96	2.29	<0.3	1.13	0.73	0.88	2.39
% Saturation	%	360.0	19.5	23.6	22.8	19.5	339.0	22.8	23.7	22.4	20.5
Calcium (Ca)	mg/L	13.5	3.9	<2	25.5	31.3	11.7	4.5	57.8	24.7	2.6
Magnesium (Mg)	mg/L	4.8	<2	<2	8.2	10.7	2.9	2.0	11.0	6.9	<2
Potassium (K)	mg/L	19.5	1.9	<1	<1	1.5	7.5	2.3	7.2	2.0	<1
Sodium (Na)	mg/L	<4	7.0	6.1	21.8	58.1	<4	11.4	23.2	19.3	14.0
Chloride (Cl)	mg/L	7.0	7.5	5.5	90.3	133.0	4.9	14.0	297.0	270.0	21.0
Sulfur (as SO_4)	mg/L	12.2	10.3	<5	<5	19.1	10.2	11.2	<5	<5	<5

TABLE 5

Soil chemistry and physical characteristic results from sampling stations located near Stony Rapids, September/October 2011.

Soil Order		Brunisol												
Soil Classification		Eluviated Dystric Brunisol						Eluviated Eutric Brunisol						
Station		Station 3						Station 4						
Horizon		LFH	Ahe	Ae	Bm	C	R	LFH	Ae	Bm	Ab	Bfj	C	R
Field Measurements	**Units**													
Depth	cm	4-0	0-3	3-7	7-35	35-76	76	6-0	0-2	2-20	20-24	24-35	35-43	43
Field pH	pH		4	4	4	5	n/a		4	4	4	4	4	n/a
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon														
Total Organic Carbon	%	25.90	2.04	0.42	0.53	-	n/a	45.50	0.95	0.44	<0.1	0.19	-	n/a
Inorganic Carbon	%	0.24	<0.1	<0.1	<0.1	<0.1	n/a	0.31	0.13	<0.1	0.11	<0.10	<0.1	n/a
$CaCO_3$ Equivalent	%	2.02	0.83	0.73	0.72	<0.7	n/a	2.60	1.07	0.74	0.92	0.75	<0.7	n/a
Total Carbon by Combustion	%	26.2	2.0	0.4	0.5	-	n/a	45.8	1.1	0.4	0.2	0.2	-	n/a
Loss on Ignition @ 375ºC	%	38.7	3.3	<1	1.4	-	n/a	82.5	1.5	1.2	<1	<1	-	n/a
Organic Matter	%	30.4	2.9	<1	1.4	-	n/a	64.6	1.4	1.2	<1	<1	-	n/a
Particle Size/Texture														
% Sand (2.0 mm - 0.05 mm)	%	-	72.40	81.00	75.60	81.70	n/a	-	76.60	63.10	86.90	85.10	75.50	n/a
% Silt (0.05 mm - 2 mm)	%	-	26.60	18.40	23.60	17.50	n/a	-	22.30	35.90	13.10	14.70	24.00	n/a
% Clay (<2 mm)	%	-	1.00	0.53	0.81	0.84	n/a	-	1.14	1.10	<0.1	0.21	0.52	n/a
Texture[1]	-	n/a	LS	LS	LS	LS	n/a	n/a	LS	SL	S	S/LS	LS	n/a
Plant-available Nutrients														
Available Nitrate-N	mg/kg	<8	<2	<2	<2	-	n/a	<8	<2	<2	<2	<2	-	n/a
Available Phosphate-P	mg/kg	39.9	11.3	13.4	10.2	-	n/a	65.0	6.0	4.9	2.8	11.6	-	n/a
Available Potassium-K	mg/kg	246	39	17	23	-	n/a	390	24	11	<10	<10	-	n/a
Cation Exchange Capacity	meq/100 g	54.40	3.96	1.27	2.87	-	n/a	82.30	2.95	2.55	<0.8	1.26	-	n/a
Exchangeable Cations and Saturated Paste Extractables														
pH in Saturated Paste	pH	4.48	4.08	4.44	5.43	5.77	n/a	4.19	4.23	5.52	5.86	4.83	5.43	n/a
Conductivity Sat. Paste	$dS\ m^{-1}$	0.13	0.15	<0.1	0.11	0.16	n/a	0.15	0.10	<0.1	0.11	0.22	<0.1	n/a
Sodium Absorption Ratio (SAR)	SAR	<0.3	1.28	1.23	IN	2.82	n/a	0.43	1.14	IN	0.79	0.58	IN	n/a
% Saturation	%	355.0	63.5	36.2	36.1	21.5	n/a	539.0	39.1	27.7	21.2	29.0	20.7	n/a
Calcium (Ca)	mg/L	11.9	6.2	2.6	<2	3.2	n/a	7.3	3.5	<2	5.5	15.5	<2	n/a
Magnesium (Mg)	mg/L	2.5	<2	<2	<2	<2	n/a	2.1	<2	<2	2.1	4.9	<2	n/a
Potassium (K)	mg/L	14.0	6.8	1.5	<1	1.7	n/a	15.8	4.9	<1	<1	<1	<1	n/a
Sodium (Na)	mg/L	<4	11.5	7.2	12.7	18.4	n/a	5.2	7.7	6.8	8.6	10.2	<4	n/a
Chloride (Cl)	mg/L	6.7	20.2	7.4	23.1	32.8	n/a	7.8	8.1	3.5	10.5	54.1	2.6	n/a
Sulfur (as SO_4)	mg/L	12.0	14.8	8.1	<5	<5	n/a	14.8	12.3	<5	9.0	<5	<5	n/a

TABLE 5

Soil chemistry and physical characteristic results from sampling stations located near Stony Rapids, September/October 2011.

Soil Order		Brunisol				
Soil Classification		Eluviated Eutric Brunisol				
Station		Station 5				
Horizon		LFH	Ae	Bfj	C	R
Field Measurements	**Units**					
Depth	cm	4-0	0-12	12-40	40-68	68
Field pH	pH		4	5	4	n/a
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none
Organic/Inorganic Carbon						
Total Organic Carbon	%	42.40	0.37	0.13	-	n/a
Inorganic Carbon	%	0.31	<0.1	0.12	<0.1	n/a
$CaCO_3$ Equivalent	%	2.57	0.82	0.97	<0.7	n/a
Total Carbon by Combustion	%	42.7	0.4	0.2	-	n/a
Loss on Ignition @ 375ºC	%	64.7	<1	<1	-	n/a
Organic Matter	%	50.7	<1	<1	-	n/a
Particle Size/Texture						
% Sand (2.0 mm - 0.05 mm)	%	-	89.10	90.50	83.40	n/a
% Silt (0.05 mm - 2 mm)	%	-	10.60	9.44	16.00	n/a
% Clay (<2 mm)	%	-	0.26	<0.1	0.55	n/a
Texture[1]	-	n/a	S	S	LS	n/a
Plant-available Nutrients						
Available Nitrate-N	mg/kg	<10	<2	<2	-	n/a
Available Phosphate-P	mg/kg	42.3	4.1	34.4	-	n/a
Available Potassium-K	mg/kg	273	19	13	-	n/a
Cation Exchange Capacity	meq/100 g	91.50	1.07	1.02	-	n/a
Exchangeable Cations and Saturated Paste Extractables						
pH in Saturated Paste	pH	3.79	3.50	5.70	5.48	n/a
Conductivity Sat. Paste	dS m^{-1}	0.12	0.31	<0.1	<0.1	n/a
Sodium Absorption Ratio (SAR)	SAR	0.50	0.46	IN	1.07	n/a
% Saturation	%	566.0	34.7	27.5	19.8	n/a
Calcium (Ca)	mg/L	5.8	17.2	<2	2.4	n/a
Magnesium (Mg)	mg/L	<2	4.4	<2	<2	n/a
Potassium (K)	mg/L	8.9	8.4	<1	<1	n/a
Sodium (Na)	mg/L	<4	8.2	<4	6.0	n/a
Chloride (Cl)	mg/L	3.4	63.6	2.6	6.2	n/a
Sulfur (as SO_4)	mg/L	10.7	5.5	<5	<5	n/a

[1]S = sand, LS = loamy sand, SL = sandy loam.

IN = incalculable.

TABLE 6

Soil chemistry and physical characteristic results from sampling stations located near Black Lake, September/October 2011.

Soil Order		Brunisol								
Soil Classification		Eluviated Dystric Brunisol					Duric Dystric Brunisol			
Station		Station 1					Station 2			
Horizon		LFH	Ae	Bh	Bfj	C	LFH	Ae	Bhfjccj	C
Field Measurements	**Units**									
Depth	cm	9-0	0-5	5-19	19-36	36-74+	7-0	0-11	11-48	48-59+
Field pH	pH		5	5	6	6		4	5	6
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon										
Total Organic Carbon	%	47.20	1.16	2.70	0.74	-	46.80	0.58	1.00	-
Inorganic Carbon	%	0.42	<0.1	0.12	<0.1	<0.1	0.32	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	3.47	0.76	1.03	0.71	<0.7	2.69	<0.7	0.74	<0.7
Total Carbon by Combustion	%	47.6	1.2	2.8	0.7	-	47.1	0.6	1.0	-
Loss on Ignition @ 375ºC	%	80.9	2.3	6.1	1.7	-	83.8	<1	3.0	-
Organic Matter	%	63.4	2.1	5.1	1.6	-	65.7	1.0	2.6	-
Particle Size/Texture										
% Sand (2.0 mm - 0.05 mm)	%	-	36.50	49.60	25.10	86.10	-	93.60	95.20	95.60
% Silt (0.05 mm - 2 mm)	%	-	60.40	47.80	71.50	13.30	-	6.16	4.33	3.73
% Clay (<2 mm)	%	-	3.02	2.59	3.47	0.57	-	0.19	0.50	0.67
Texture[1]	-	n/a	SiL	SL	SiL	S	n/a	S	S	S
Plant-available Nutrients										
Available Nitrate-N	mg/kg	<10	<2	<2	<2	-	<10	<2	<2	-
Available Phosphate-P	mg/kg	53.5	12.0	2.6	<2	-	54.6	13.9	56.4	-
Available Potassium-K	mg/kg	374	43	36	33	-	421	30	30	-
Cation Exchange Capacity	meq/100 g	80.10	4.33	16.60	5.14	-	68.30	2.20	8.38	-
Exchangeable Cations and Saturated Paste Extractables										
pH in Saturated Paste	pH	4.37	3.77	4.25	4.89	5.44	4.18	3.53	5.20	5.32
Conductivity Sat. Paste	$dS\ m^{-1}$	0.15	0.13	0.15	<0.1	0.11	0.20	0.37	<0.1	0.11
Sodium Absorption Ratio (SAR)	SAR	<0.2	1.03	0.72	1.08	0.40	<0.2	0.26	IN	<0.3
% Saturation	%	549.0	42.6	54.2	39.1	22.4	740.0	33.9	34.4	28.7
Calcium (Ca)	mg/L	13.7	4.0	2.5	2.1	7.1	13.2	12.9	<2	6.5
Magnesium (Mg)	mg/L	5.7	2.3	2.2	<2	2.4	5.2	11.2	<2	2.4
Potassium (K)	mg/L	16.9	7.8	8.5	1.1	<1	26.0	13.0	2.1	1.7
Sodium (Na)	mg/L	<4	10.4	6.5	5.7	4.8	<4	5.4	<4	<4
Chloride (Cl)	mg/L	6.9	11.5	35.0	8.1	17.4	7.5	77.1	2.5	19.4
Sulfur (as SO_4)	mg/L	10.6	18.4	<5	<5	<5	16.3	9.0	<5	<5

TABLE 6

Soil chemistry and physical characteristic results from sampling stations located near Black Lake, September/October 2011.

Soil Order		Brunisol								
Soil Classification		Eluviated Eutric Brunisol					Eluviated Dystric Brunisol			
Station		Station 3					Station 4			
Horizon		LFH	Ae	Bm1	Bm2	C	LFH	Ae	Bm	C
Field Measurements	**Units**									
Depth	cm	1-0	0-7	7-28	28-71	71-93+	5-0	0-16	16-69	69-82+
Field pH	pH		5	4.5	5	2		4	4	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon										
Total Organic Carbon	%	38.30	0.45	0.60	0.15	-	42.90	0.17	0.80	-
Inorganic Carbon	%	0.18	<0.1	<0.1	<0.1	-	0.30	0.12	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.52	<0.7	<0.7	<0.7	-	2.54	1.03	<0.7	<0.7
Total Carbon by Combustion	%	38.5	0.5	0.6	0.2	-	43.2	0.3	0.8	-
Loss on Ignition @ 375ºC	%	65.5	<1	1.7	<1	-	72.4	<1	1.8	-
Organic Matter	%	51.4	<1	1.6	<1	-	56.8	<1	1.7	-
Particle Size/Texture										
% Sand (2.0 mm - 0.05 mm)	%	-	86.30	86.80	85.40	87.30	-	63.10	96.50	78.20
% Silt (0.05 mm - 2 mm)	%	-	13.70	12.70	14.30	12.30	-	36.40	2.89	19.50
% Clay (<2 mm)	%	-	<0.1	0.55	0.31	0.45	-	0.53	0.62	2.30
Texture[1]	-	n/a	S	S	S/LS	S	n/a	SL	S	LS
Plant-available Nutrients										
Available Nitrate-N	mg/kg	<10	<2	<2	<2	-	<10	<2	<2	-
Available Phosphate-P	mg/kg	46.5	16.9	37.7	47.9	-	68.8	9.5	64.3	-
Available Potassium-K	mg/kg	251	23	33	66	-	449	25	16	-
Cation Exchange Capacity	meq/100 g	33.70	1.87	3.03	0.98	-	54.30	1.99	4.12	-
Exchangeable Cations and Saturated Paste Extractables										
pH in Saturated Paste	pH	4.32	4.21	5.61	5.71	5.84	4.66	3.76	4.23	4.62
Conductivity Sat. Paste	$dS\ m^{-1}$	0.18	<0.1	<0.1	<0.1	<0.1	0.17	<0.1	0.31	0.15
Sodium Absorption Ratio (SAR)	SAR	<0.2	<0.7	IN	0.65	<0.8	<0.3	1.00	0.34	0.57
% Saturation	%	493.0	28.7	31.1	21.3	25.1	661.0	23.7	36.0	33.3
Calcium (Ca)	mg/L	21.5	2.3	<2	3.5	2.1	9.5	4.0	23.4	7.8
Magnesium (Mg)	mg/L	6.1	<2	<2	<2	<2	4.8	<2	7.4	3.4
Potassium (K)	mg/L	15.8	2.4	3.2	<1	<1	22.9	2.6	4.9	1.3
Sodium (Na)	mg/L	<4	<4	<4	4.4	<4	<4	7.2	7.4	7.6
Chloride (Cl)	mg/L	10.5	3.1	2.0	8.1	5.4	4.4	4.1	78.3	32.4
Sulfur (as SO_4)	mg/L	13.3	10.2	<5	<5	<5	14.8	9.7	<5	<5

TABLE 6

Soil chemistry and physical characteristic results from sampling stations located near Black Lake, September/October 2011.

Soil Order							
Soil Classification		**Eluviated Dystric Brunisol**					
Station		**Station 5**					
Horizon		**LFH**	**Ae**	**Bm1**	**Bm2**	**IC**	**IIC**
Field Measurements	**Units**						
Depth	cm	4-0	0-6	6-20	20-53	53-81	81-92+
Field pH	pH		4.5	5	2.5	5.5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none
Organic/Inorganic Carbon							
Total Organic Carbon	%	39.40	0.56	0.98	0.16	-	-
Inorganic Carbon	%	0.25	<0.1	<0.1	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	2.05	0.73	<0.7	<0.7	<0.7	<0.7
Total Carbon by Combustion	%	39.6	0.6	1.0	0.2	-	-
Loss on Ignition @ 375ºC	%	66.6	1.1	2.7	<1	-	-
Organic Matter	%	52.2	1.1	2.3	<1	-	-
Particle Size/Texture							
% Sand (2.0 mm - 0.05 mm)	%	-	67.10	82.10	98.50	54.10	65.00
% Silt (0.05 mm - 2 mm)	%	-	31.30	16.70	1.00	40.30	27.60
% Clay (<2 mm)	%	-	1.58	1.20	0.48	5.54	7.45
Texture[1]	-	n/a	SL	LS	S	SL	SL
Plant-available Nutrients							
Available Nitrate-N	mg/kg	<10	<2	<2	<2	-	-
Available Phosphate-P	mg/kg	69.7	18.7	36.6	27.4	-	-
Available Potassium-K	mg/kg	345	37	26	14	-	-
Cation Exchange Capacity	meq/100 g	67.40	3.39	6.49	1.04	-	-
Exchangeable Cations and Saturated Paste Extractables							
pH in Saturated Paste	pH	4.24	3.68	3.96	5.02	4.27	5.33
Conductivity Sat. Paste	$dS\ m^{-1}$	0.14	0.10	0.62	<0.1	0.71	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.2	0.95	0.20	<0.5	0.24	IN
% Saturation	%	569.0	29.8	34.9	35.8	24.6	19.1
Calcium (Ca)	mg/L	14.9	3.2	26.3	4.4	68.3	<2
Magnesium (Mg)	mg/L	4.0	<2	10.8	<2	25.4	<2
Potassium (K)	mg/L	13.6	6.9	18.9	3.1	3.2	1.0
Sodium (Na)	mg/L	<4	6.2	4.8	<4	9.3	6.9
Chloride (Cl)	mg/L	5.5	5.1	166.0	16.3	190.0	7.1
Sulfur (as SO_4)	mg/L	12.4	13.4	<5	<5	<5	<5

[1]S = sand, SiL = silt loam, SL = sandy loam, LS = loamy sand.

IN = incalculable.

TABLE 7

Soil chemistry and physical characteristic results from sampling stations located near Fond du Lac, September/October 2011.

Soil Order		Brunisol										
Soil Classification		Orthic Dystric Brunisol						Eluviated Dystric Brunisol				
Station		Station 1						Station 2				
Horizon		LFH	IC	Ahb	IIBm1	IIBm2	IIC	LFH	Ae	Bm	IC	IIC
Field Measurements	**Units**											
Depth	cm	1-0	0-7	7-11	11-39	39-78	78-92+	2-0	0-6	6-23	23-46	46-61+
Field pH	pH		5	5	5	5	5		5	4.5	5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon												
Total Organic Carbon	%	40.00	-	1.78	0.16	<0.1	-	43.00	0.35	<0.1	-	-
Inorganic Carbon	%	0.27	<0.1	<0.1	<0.1	0.10	<0.1	0.34	<0.1	0.12	<0.1	<0.1
$CaCO_3$ Equivalent	%	2.29	<0.7	<0.7	<0.7	0.87	<0.7	2.83	0.71	1.00	<0.7	<0.7
Total Carbon by Combustion	%	40.3	-	1.8	0.2	0.1	-	43.3	0.4	0.2	-	-
Loss on Ignition @ 375ºC	%	55.3	-	2.6	<1	<1	-	67.9	<1	<1	-	-
Organic Matter	%	43.4	-	2.3	<1	<1	-	53.2	<1	<1	-	-
Particle Size/Texture												
% Sand (2.0 mm - 0.05 mm)	%	-	97.10	97.00	98.60	90.90	83.70	-	93.20	91.40	66.50	77.10
% Silt (0.05 mm - 2 mm)	%	-	2.77	2.69	0.91	7.87	14.80	-	6.31	7.70	32.70	22.10
% Clay (<2 mm)	%	-	0.17	0.33	0.45	1.20	1.55	-	0.48	0.86	0.79	0.77
Texture[1]	-	n/a	S	S	S	S	LS	n/a	S	S	SL	LS
Plant-available Nutrients												
Available Nitrate-N	mg/kg	<6	-	<2	<2	<2	-	<8	<2	<2	-	-
Available Phosphate-P	mg/kg	41.5	-	7.4	<2	12.7	-	22.6	4.1	14.3	-	-
Available Potassium-K	mg/kg	369	-	47	<10	10	-	337	20	20	-	-
Cation Exchange Capacity	meq/100 g	51.70	-	2.98	<0.8	<0.8	-	74.00	1.59	<0.8	-	-
Exchangeable Cations and Saturated Paste Extractables												
pH in Saturated Paste	pH	4.50	4.91	4.04	3.50	4.34	5.15	4.63	3.05	3.99	4.02	5.19
Conductivity Sat. Paste	$dS\ m^{-1}$	0.40	<0.1	0.13	0.46	0.14	<0.1	0.15	0.93	0.39	1.15	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.1	<0.4	<0.4	<0.2	<0.3	0.63	<0.2	<0.2	<0.2	0.18	IN
% Saturation	%	404.0	42.0	51.7	24.9	24.3	19.9	406.0	27.2	24.0	18.2	21.8
Calcium (Ca)	mg/L	53.2	6.5	6.1	18.5	10.3	4.3	14.8	26.3	22.5	128.0	<2
Magnesium (Mg)	mg/L	15.7	<2	<2	4.8	2.9	<2	4.4	14.4	5.7	19.7	<2
Potassium (K)	mg/L	50.1	10.1	16.4	7.0	3.7	2.6	15.6	17.6	14.3	26.8	1.6
Sodium (Na)	mg/L	<4	<4	<4	<4	<4	4.8	<4	<4	<4	8.4	<4
Chloride (Cl)	mg/L	30.8	4.7	6.3	89.0	33.7	12.2	9.3	184.0	98.7	314.0	4.4
Sulfur (as SO_4)	mg/L	27.4	11.5	11.6	<5	<5	<5	12.9	7.4	<5	<5	<5

TABLE 7

Soil chemistry and physical characteristic results from sampling stations located near Fond du Lac, September/October 2011.

Soil Order		Brunisol									
Soil Classification		Eluviated Dystric Brunisol					Eluviated Dystric Brunisol				
Station		Station 3					Station 4				
Horizon		LFH	IAhe	IIAe	IIBm	IIC	LFH	IAe	IIBm1	IIBm2	IIC
Field Measurements	**Units**										
Depth	cm	1-0	0-8	8-40	40-82	82-96+	1-0	0-23	23-44	44-99	99-105+
Field pH	pH		4	5	5	5		5	5	5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon											
Total Organic Carbon	%	19.40	0.63	0.13	0.12	-	18.70	0.12	<0.1	0.11	-
Inorganic Carbon	%	0.14	<0.1	<0.1	<0.1	<0.1	0.26	<0.1	0.11	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.19	0.78	0.72	0.72	<0.7	2.14	0.80	0.92	0.82	<0.7
Total Carbon by Combustion	%	19.6	0.6	0.1	0.1	-	18.9	0.1	0.1	0.1	-
Loss on Ignition @ 375ºC	%	50.9	<1	<1	<1	-	39.2	<1	<1	<1	-
Organic Matter	%	40.0	<1	<1	<1	-	30.9	<1	<1	<1	-
Particle Size/Texture											
% Sand (2.0 mm - 0.05 mm)	%	-	97.70	93.50	93.80	93.00	-	99.50	99.30	97.40	96.60
% Silt (0.05 mm - 2 mm)	%	-	2.24	6.33	5.78	6.16	-	<0.1	0.36	1.67	2.47
% Clay (<2 mm)	%	-	<0.1	0.19	0.46	0.84	-	0.50	0.36	0.91	0.96
Texture[1]	-	n/a	S	S	S	S	n/a	S	S	S	S
Plant-available Nutrients											
Available Nitrate-N	mg/kg	<6	<2	<2	<2	-	<6	<2	<2	<2	-
Available Phosphate-P	mg/kg	49.3	2.6	2.9	18.8	-	14.0	<2	2.3	4.9	-
Available Potassium-K	mg/kg	324	24	11	11	-	206	<10	11	<10	-
Cation Exchange Capacity	meq/100 g	39.40	1.00	<0.8	<0.8	-	46.80	<0.8	<0.8	<0.8	-
Exchangeable Cations and Saturated Paste Extractables											
pH in Saturated Paste	pH	3.83	2.81	4.28	5.28	4.69	4.21	4.62	4.73	5.12	5.20
Conductivity Sat. Paste	$dS\ m^{-1}$	0.40	1.49	<0.1	<0.1	0.16	0.18	<0.1	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.1	<0.1	IN	<0.7	0.56	<0.2	IN	IN	IN	IN
% Saturation	%	280.0	30.1	23.1	22.7	22.9	295.0	30.7	26.7	29.6	27.9
Calcium (Ca)	mg/L	39.2	45.1	<2	2.6	10.0	16.9	<2	<2	<2	<2
Magnesium (Mg)	mg/L	13.4	14.3	<2	<2	<2	4.3	<2	<2	<2	2.0
Potassium (K)	mg/L	44.9	23.7	2.5	1.7	3.4	17.6	1.0	<1	<1	1.3
Sodium (Na)	mg/L	<4	<4	5.7	<4	6.4	<4	<4	<4	<4	<4
Chloride (Cl)	mg/L	29.1	261.0	6.8	13.5	35.8	10.1	<2	2.1	<2	2.4
Sulfur (as SO_4)	mg/L	30.7	6.4	<5	<5	<5	15.9	<5	<5	<5	<5

TABLE 7

Soil chemistry and physical characteristic results from sampling stations located near Fond du Lac, September/October 2011.

Soil Order		Brunisol				
Soil Classification		Eluviated Dystric Brunisol				
Station		Station 5				
Horizon		LFH	IAe	IIAb	IIBm	IIC
Field Measurements	**Units**					
Depth	cm	1-0	0-34	34-48	48-89	89-103+
Field pH	pH		4	5	5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none
Organic/Inorganic Carbon						
Total Organic Carbon	%	19.20	<0.1	<0.1	0.12	-
Inorganic Carbon	%	0.17	0.11	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.44	0.96	0.72	0.70	<0.7
Total Carbon by Combustion	%	19.3	0.1	<0.1	0.1	-
Loss on Ignition @ 375ºC	%	33.0	<1	<1	<1	-
Organic Matter	%	26.0	<1	<1	<1	-
Particle Size/Texture						
% Sand (2.0 mm - 0.05 mm)	%	-	99.30	95.10	93.50	94.70
% Silt (0.05 mm - 2 mm)	%	-	0.60	4.57	5.90	4.85
% Clay (<2 mm)	%	-	0.12	0.38	0.57	0.45
Texture[1]	-	n/a	S	S	S	S
Plant-available Nutrients						
Available Nitrate-N	mg/kg	<6	<2	<2	<2	-
Available Phosphate-P	mg/kg	10.9	<2	<2	21.4	-
Available Potassium-K	mg/kg	157	<10	<10	30	-
Cation Exchange Capacity	meq/100 g	33.00	<0.8	<0.8	<0.8	-
Exchangeable Cations and Saturated Paste Extractables						
pH in Saturated Paste	pH	3.96	4.69	4.59	5.41	5.49
Conductivity Sat. Paste	dS m^{-1}	0.22	<0.1	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.2	IN	IN	IN	IN
% Saturation	%	209.0	33.5	22.4	23.0	22.1
Calcium (Ca)	mg/L	2.5	<2	<2	<2	<2
Magnesium (Mg)	mg/L	5.9	<2	<2	<2	<2
Potassium (K)	mg/L	18.5	1.6	<1	<1	<1
Sodium (Na)	mg/L	<4	<4	<4	<4	<4
Chloride (Cl)	mg/L	13.1	<2	<2	<2	<2
Sulfur (as SO_4)	mg/L	19.1	<5	<5	<5	<5

[1]S = sand, LS = loamy sand, SL = sandy loam.

IN = incalculable.

TABLE 8

Soil chemistry and physical characteristic results from sampling stations located near Wollaston Lake/Hatchet Lake, September/October 2011.

Soil Order		Brunisol							
Soil Classification		Eluviated Eutric Brunisol				Eluviated Dystric Brunisol			
Station		Station 1				Station 2			
Horizon		LFH	Ae	Bfj	C	LFH	Ae	Bfj	C
Field Measurements	**Units**								
Depth	cm	7-0	0-15	15-34	34-56+	6-0	0-6	6-33	33-50+
Field pH	pH		4	4	5		4	4	4
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon									
Total Organic Carbon	%	41.90	0.43	0.37	-	46.40	0.75	0.65	-
Inorganic Carbon	%	0.35	0.12	<0.1	<0.1	0.38	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	2.95	1.01	0.73	<0.7	3.15	<0.7	0.74	<0.7
Total Carbon by Combustion	%	42.2	0.5	0.4	-	46.8	0.7	0.6	-
Loss on Ignition @ 375ºC	%	72.3	1	1.1	-	81.5	1.6	1.8	-
Organic Matter	%	56.7	1.1	1.1	-	63.8	1.5	1.7	-
Particle Size/Texture									
% Sand (2.0 mm - 0.05 mm)	%	-	75.30	74.10	71.60	-	63.70	77.30	80.00
% Silt (0.05 mm - 2 mm)	%	-	23.80	25.50	26.10	-	35.40	22.60	18.90
% Clay (<2 mm)	%	-	0.91	0.40	2.31	-	0.93	<0.1	1.03
Texture[1]	-	n/a	LS	LS	SL	n/a	SL	LS	LS
Plant-available Nutrients									
Available Nitrate-N	mg/kg	<8	<2	<2	-	<8	<2	<2	-
Available Phosphate-P	mg/kg	58.7	6.2	8.5	-	69.9	5.2	6.6	-
Available Potassium-K	mg/kg	391	57	16	-	419	28	19	-
Cation Exchange Capacity	meq/100 g	75.40	3.41	3.38	-	73.00	2.61	3.53	-
Exchangeable Cations and Saturated Paste Extractables									
pH in Saturated Paste	pH	3.85	3.89	5.64	5.67	3.86	3.63	4.63	5.24
Conductivity Sat. Paste	$dS\ m^{-1}$	0.18	<0.1	<0.1	<0.1	0.24	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.4	IN	IN	IN	<0.3	<0.7	<0.8	0.49
% Saturation	%	624.0	33.7	24.8	20.6	598.0	43.5	31.6	19.6
Calcium (Ca)	mg/L	6.5	<2	<2	<2	10.0	2.3	2.1	5.3
Magnesium (Mg)	mg/L	<2	<2	<2	<2	2.7	<2	<2	<2
Potassium (K)	mg/L	18.1	3.7	<1	<1	23.9	4.8	3.6	1.7

TABLE 8

Soil chemistry and physical characteristic results from sampling stations located near Wollaston Lake/Hatchet Lake, September/October 2011.

Soil Order		Brunisol								
Soil Classification		Eluviated Eutric Brunisol				Eluviated Dystric Brunisol				
Station		Station 3				Station 4				
Horizon		LFH	Ae	Bfj	C	LFH	Ahe	Aeb	Bfj	C
Field Measurements	**Units**									
Depth	cm	4-0	0-9	9-41	41-63+	3-0	0-6	6-9	9-54	54-72+
Field pH	pH		4	4	4		4	5	4	4
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon										
Total Organic Carbon	%	43.30	0.56	0.39	-	41.10	1.34	0.38	0.31	-
Inorganic Carbon	%	0.16	<0.1	<0.1	<0.1	0.21	<0.1	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.35	<0.7	<0.7	<0.7	1.73	<0.7	0.71	<0.7	<0.7
Total Carbon by Combustion	%	43.4	0.6	0.4	-	41.3	1.3	0.4	0.3	-
Loss on Ignition @ 375ºC	%	77.6	1.2	1.3	-	68.3	2.4	<1	<1	-
Organic Matter	%	60.8	1.2	1.3	-	53.5	2.2	<1	<1	-
Particle Size/Texture										
% Sand (2.0 mm - 0.05 mm)	%	-	77.60	92.60	78.80	-	85.20	84.30	89.70	94.00
% Silt (0.05 mm - 2 mm)	%	-	21.50	6.74	20.40	-	14.00	14.90	10.30	5.90
% Clay (<2 mm)	%	-	0.98	0.67	0.81	-	0.74	0.72	<0.1	0.12
Texture[1]	-	n/a	LS	S	LS	n/a	S/LS	LS	S	S
Plant-available Nutrients										
Available Nitrate-N	mg/kg	<8	<2	<2	-	<8	<2	<2	<2	-
Available Phosphate-P	mg/kg	40.1	9.2	23.1	-	21.1	63.6	10.5	62.1	-
Available Potassium-K	mg/kg	282	32	28	-	294	38	16	<10	-
Cation Exchange Capacity	meq/100 g	55.60	2.58	2.51	-	74.30	4.79	1.71	1.75	-
Exchangeable Cations and Saturated Paste Extractables										
pH in Saturated Paste	pH	3.81	3.98	5.77	5.90	4.29	4.36	4.56	5.35	5.83
Conductivity Sat. Paste	$dS\ m^{-1}$	0.16	<0.1	0.33	<0.1	0.14	<0.1	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	0.40	IN	0.29	IN	<0.3	IN	IN	IN	IN
% Saturation	%	657.0	35.1	26.9	14.2	462.0	42.7	34.9	33.3	27.1
Calcium (Ca)	mg/L	8.5	<2	32.1	<2	7.7	<2	<2	<2	<2
Magnesium (Mg)	mg/L	2.3	<2	10.2	<2	2.3	<2	<2	<2	<2
Potassium (K)	mg/L	15.3	3.8	2.9	<1	12.1	4.9	2.2	<1	<1

TABLE 8

Lake/Hatchet Lake,
September/October 2011.

Soil Order		Brunisol			
Soil Classification		Eluviated Dystric Brunisol			
Station		Station 5			
Horizon		LFH	Ae	Bfj	C
Field Measurements	**Units**				
Depth	cm	2-0	0-6	6-44	44-65+
Field pH	pH		4	4	4
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none
Organic/Inorganic Carbon					
Total Organic Carbon	%	37.00	0.60	0.37	-
Inorganic Carbon	%	0.19	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.58	0.79	<0.7	<0.7
Total Carbon by Combustion	%	37.2	0.6	0.4	-
Loss on Ignition @ 375ºC	%	56.1	1.1	<1	-
Organic Matter	%	44.1	1.1	1.1	-
Particle Size/Texture					
% Sand (2.0 mm - 0.05 mm)	%	-	75.40	90.80	77.20
% Silt (0.05 mm - 2 mm)	%	-	24.10	9.19	22.00
% Clay (<2 mm)	%	-	0.50	<0.1	0.79
Texture[1]	-	n/a	LS	S	LS
Plant-available Nutrients					
Available Nitrate-N	mg/kg	<8	<2	<2	-
Available Phosphate-P	mg/kg	24.3	9.2	55.6	-
Available Potassium-K	mg/kg	183	19	24	-
Cation Exchange Capacity	meq/100 g	69.10	1.60	1.60	-
Exchangeable Cations and Saturated Paste Extractables					
pH in Saturated Paste	pH	4.46	4.38	5.45	5.49
Conductivity Sat. Paste	$dS\ m^{-1}$	<0.1	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	<0.5	<0.7	IN	IN
% Saturation	%	384.0	39.3	27.9	29.0
Calcium (Ca)	mg/L	5.1	2.2	<2	<2
Magnesium (Mg)	mg/L	<2	<2	<2	<2
Potassium (K)	mg/L	2.9	3.0	<1	<1

[1]LS = loamy sand, SL = sandy loam, S = sand.
IN = incalculable.

TABLE 9

Soil chemistry and physical characteristic results from sampling stations located near Uranium City, September/October 2011.

Soil Order		Brunisol										
Soil Classification		Eluviated Eutric Brunisol						Eluviated Dystric Brunisol				
Station		Station 1						Station 2				
Horizon		LFH	Ahe	Ae	Bm1	Bm2	C	LFH	Ahe	Ae	Bm	C
Field Measurements	**Units**											
Depth	cm	2-0	0-3	3-7	7-46	46-63	63-115+	2-0	0-4	4-6	6-42	42-77+
Field pH	pH		4	4	4	4	4		4	3	4	4
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon												
Total Organic Carbon	%	28.10	0.70	0.30	0.20	<0.1	-	41.10	1.31	0.80	0.26	-
Inorganic Carbon	%	0.20	<0.1	<0.1	<0.1	<0.1	<0.1	0.19	<0.1	<0.1	0.12	<0.1
$CaCO_3$ Equivalent	%	1.68	<0.7	<0.7	<0.7	<0.7	<0.7	1.59	<0.7	<0.7	0.98	<0.7
Total Carbon by Combustion	%	28.3	0.7	0.3	0.2	<0.1	-	41.3	1.3	0.8	0.4	-
Loss on Ignition @ 375ºC	%	55.7	1.1	<1	<1	<1	-	72.9	2.2	1.4	<1	-
Organic Matter	%	43.7	1.1	<1	<1	<1	-	57.2	2.0	1.4	<1	-
Particle Size/Texture												
% Sand (2.0 mm - 0.05 mm)	%	-	94.80	95.70	93.70	99.00	98.20	-	92.40	92.80	94.50	89.30
% Silt (0.05 mm - 2 mm)	%	-	4.62	3.99	5.57	0.62	1.48	-	7.54	6.83	4.72	10.10
% Clay (<2 mm)	%	-	0.55	0.33	0.77	0.40	0.29	-	<0.1	0.40	0.74	0.61
Texture[1]	-	n/a	S	S	S	S	S	n/a	S	S	S	S
Plant-available Nutrients												
Available Nitrate-N	mg/kg	<10	<2	<2	<2	<2	-	<10	<2	<2	<2	-
Available Phosphate-P	mg/kg	49.9	13.9	3.7	3.0	6.3	-	105.0	12.4	7.9	24.2	-
Available Potassium-K	mg/kg	533	32	20	16	13	-	563	44	32	16	-
Cation Exchange Capacity	meq/100 g	19.10	1.61	1.28	0.81	<0.8	-	49.60	2.99	1.85	1.59	-
Exchangeable Cations and Saturated Paste Extractables												
pH in Saturated Paste	pH	5.25	5.11	4.94	5.55	5.54	4.94	4.26	4.95	4.82	5.45	6.72
Conductivity Sat. Paste	$dS\ m^{-1}$	0.30	0.28	0.22	<0.1	0.33	0.54	0.33	0.11	<0.1	<0.1	<0.1
Sodium Absorption Ratio (SAR)	SAR	0.20	0.26	0.21	0.66	0.33	0.28	<0.2	0.38	0.41	0.90	IN
% Saturation	%	308.0	32.4	30.5	27.7	26.8	31.8	638.0	39.0	36.1	34.2	24.1
Calcium (Ca)	mg/L	30.7	32.6	22.0	3.6	31.4	54.2	19.3	8.0	7.4	2.5	<2
Magnesium (Mg)	mg/L	8.0	10.5	6.0	<2	7.8	15.1	6.3	2.0	<2	<2	<2
Potassium (K)	mg/L	53.8	7.4	3.8	<1	3.1	5.5	47.3	7.7	4.7	1.2	<1

TABLE 9

Soil chemistry and physical characteristic results from sampling stations located near Uranium City, September/October 2011.

Soil Order		Brunisol								
Soil Classification		Eluviated Eutric Brunisol				Eluviated Eutric Brunisol				
Station		Station 3				Station 4				
Horizon		LFH	Ae	Btj	C	LFH	Ae	Bfj	C	R
Field Measurements	**Units**									
Depth	cm	5-0	0-13	13-104	104-114+	9-0	0-11	11-91	91-92	92
Field pH	pH		4	4	5		5	4	5	n/a
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon										
Total Organic Carbon	%	41.80	0.25	0.18	-	38.40	0.83	0.23	-	n/a
Inorganic Carbon	%	0.30	<0.1	<0.1	<0.1	0.32	<0.1	0.10	<0.1	n/a
$CaCO_3$ Equivalent	%	2.47	<0.7	<0.7	<0.7	2.66	0.76	0.85	<0.7	n/a
Total Carbon by Combustion	%	42.1	0.2	0.2	-	38.8	0.8	0.3	-	n/a
Loss on Ignition @ 375ºC	%	67.7	<1	<1	-	78.2	1.4	<1	-	n/a
Organic Matter	%	53.1	<1	<1	-	61.3	1.4	<1	-	n/a
Particle Size/Texture										
% Sand (2.0 mm - 0.05 mm)	%	-	90.50	72.90	96.90	-	77.10	91.90	86.90	n/a
% Silt (0.05 mm - 2 mm)	%	-	8.78	25.50	2.79	-	20.70	6.71	9.38	n/a
% Clay (<2 mm)	%	-	0.69	1.63	0.27	-	2.15	1.41	3.72	n/a
Texture[1]	-	n/a	S	LS	S	n/a	LS	S	LS	n/a
Plant-available Nutrients										
Available Nitrate-N	mg/kg	<10	<2	<2	-	<10	<2	<2	-	n/a
Available Phosphate-P	mg/kg	139.0	12.4	12.9	-	178.0	40.6	49.9	-	n/a
Available Potassium-K	mg/kg	1320	29	22	-	1770	43	<10	-	n/a
Cation Exchange Capacity	meq/100 g	77.70	2.07	1.46	-	90.90	3.62	2.57	-	n/a
Exchangeable Cations and Saturated Paste Extractables										
pH in Saturated Paste	pH	5.39	4.80	5.88	6.61	5.94	4.82	5.92	5.16	n/a
Conductivity Sat. Paste	$dS\ m^{-1}$	0.72	<0.1	<0.1	<0.1	0.73	0.14	<0.1	0.11	n/a
Sodium Absorption Ratio (SAR)	SAR	0.10	0.70	IN	IN	<0.1	0.39	0.91	0.60	n/a
% Saturation	%	772.0	29.5	35.7	31.8	685.0	35.2	29.6	37.1	n/a
Calcium (Ca)	mg/L	97.9	5.6	<2	<2	109.0	13.0	3.1	6.8	n/a
Magnesium (Mg)	mg/L	31.4	<2	<2	<2	28.9	4.9	<2	2.6	n/a
Potassium (K)	mg/L	117.0	3.2	<1	1.5	123.0	3.2	1.2	2.5	n/a

TABLE 9

Soil chemistry and physical characteristic results from sampling stations located near Uranium City, September/October 2011.

Soil Order		Brunisol							
Soil Classification		Gleyed Eluviated Dystric Brunisol							
Station		Station 5							
Horizon		LFH	Ae	IIBm	IIIBm	IIIBx	IVBgj	Cg	R
Field Measurements	**Units**								
Depth	cm	9-0	0-16	16-35	35-51	51-53	53-99	99-105	105
Field pH	pH		4	4	4		4	5	n/a
Presence of Carbonates (HCl Effervescence)	-	none	none					none	none
Organic/Inorganic Carbon									
Total Organic Carbon	%	41.90	0.89	0.16	-		0.23	-	n/a
Inorganic Carbon	%	0.31	0.12	<0.1	<0.1		<0.1	<0.1	n/a
$CaCO_3$ Equivalent	%	2.61	0.97	<0.7	<0.7		0.73	<0.7	n/a
Total Carbon by Combustion	%	42.2	1.0	0.2	-		0.2	-	n/a
Loss on Ignition @ 375ºC	%	83.7	1.8	<1	-		<1	-	n/a
Organic Matter	%	65.5	1.7	<1	-		<1	-	n/a
Particle Size/Texture									
% Sand (2.0 mm - 0.05 mm)	%	-	40.20	92.70	41.70		93.30	64.40	n/a
% Silt (0.05 mm - 2 mm)	%	-	55.60	5.03	56.90		6.16	35.00	n/a
% Clay (<2 mm)	%	-	4.19	2.25	1.42		0.53	0.57	n/a
Texture[1]	-	n/a	SiL	S	SiL		S	SL	n/a
Plant-available Nutrients									
Available Nitrate-N	mg/kg	<10	<2	<2	-		<2	-	n/a
Available Phosphate-P	mg/kg	156.0	5.9	<2	-		3.7	-	n/a
Available Potassium-K	mg/kg	1000	39	21	-		13	-	n/a
Cation Exchange Capacity	meq/100 g	74.10	4.98	1.62	-		1.22	-	n/a
Exchangeable Cations and Saturated Paste Extractables									
pH in Saturated Paste	pH	4.54	4.03	5.21	5.33		6.38	6.52	n/a
Conductivity Sat. Paste	$dS\ m^{-1}$	0.56	0.26	<0.1	0.64		<0.1	0.10	n/a
Sodium Absorption Ratio (SAR)	SAR	0.13	0.66	<0.5	0.20		<0.4	0.38	n/a
% Saturation	%	1000.0	36.0	31.6	38.7		36.0	32.4	n/a
Calcium (Ca)	mg/L	72.6	23.8	4.4	78.5		6.4	14.4	n/a
Magnesium (Mg)	mg/L	16.4	6.3	<2	11.9		<2	<2	n/a
Potassium (K)	mg/L	94.1	5.8	1.8	3.3		<1	<1	n/a

[1]S = sand, LS = loamy sand, SiL = silt loam.

IN = incalculable.

TABLE 10

Soil chemistry and physical characteristic results from sampling stations located near Camsell Portage, September/October 2011.

Soil Order		Brunisol							
Soil Classification		Eluviated Dystric Brunisol				Eluviated Dystric Brunisol			
Station		Station 1				Station 2			
Horizon		LFH	Ae	Bm	C	LFH	Ae	Bm	C
Field Measurements	**Units**								
Depth	cm	8-0	0-7	7-83	83-97+	20-0	0-24	24-37	37-58+
Field pH	pH		5	4	5		5	5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon									
Total Organic Carbon	%	44.30	1.80	0.28	-	43.70	0.19	0.29	-
Inorganic Carbon	%	0.28	0.12	<0.1	<0.1	0.37	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	2.35	0.96	<0.7	<0.7	3.06	<0.7	<0.7	<0.7
Total Carbon by Combustion	%	44.6	1.9	0.3	-	44.1	0.2	0.3	-
Loss on Ignition @ 375ºC	%	84.5	3.4	<1	-	87.7	<1	<1	-
Organic Matter	%	66.2	2.9	<1	-	68.7	<1	<1	-
Particle Size/Texture									
% Sand (2.0 mm - 0.05 mm)	%	-	84.60	96.80	81.20	-	98.90	64.40	67.60
% Silt (0.05 mm - 2 mm)	%	-	14.20	2.89	17.10	-	0.91	31.40	30.20
% Clay (<2 mm)	%	-	1.20	0.33	1.67	-	0.19	4.18	2.28
Texture	-	n/a	LS	S	LS	n/a	S	SL	SL
Plant-available Nutrients									
Available Nitrate-N	mg/kg	<10	<2	<2	-	<10	<2	<2	-
Available Phosphate-P	mg/kg	77.5	3.4	4.0	-	177.0	28.1	2.8	-
Available Potassium-K	mg/kg	953	43	29	-	1570	34	53	-
Cation Exchange Capacity	meq/100 g	91.10	4.25	1.47	-	81.80	1.09	3.91	-
Exchangeable Cations and Saturated Paste Extractables									
pH in Saturated Paste	pH	5.73	4.64	5.13	5.34	5.69	5.61	5.43	7.04
Conductivity Sat. Paste	dS m^{-1}	0.66	0.22	1.68	0.25	0.83	<0.1	0.71	0.42
Sodium Absorption Ratio (SAR)	SAR	<0.1	0.37	0.33	0.34	<0.1	<0.3	0.35	0.56
% Saturation	%	748.0	36.0	29.9	31.7	968.0	31.2	23.4	20.9
Calcium (Ca)	mg/L	131.0	28.7	181.0	23.1	136.0	7.1	54.8	40.3
Magnesium (Mg)	mg/L	16.8	10.4	55.1	10.8	39.5	2.6	36.9	16.1
Potassium (K)	mg/L	86.2	4.7	12.3	5.3	137.0	5.5	5.3	3.4

TABLE 10

Soil chemistry and physical characteristic results from sampling stations located near Camsell Portage, September/October 2011.

Soil Order		Brunisol									
Soil Classification		Eluviated Dystric Brunisol				Eluviated Dystric Brunisol					
Station		Station 3				Station 4					
Horizon		LFH	Ahe	Bm	C	LFH	Ae	Of	Aeb	Btj	C
Field Measurements	**Units**										
Depth	cm	7-0	0-11	11-143	143-165+	11-0	0-22	22-50	50-62	62-69	69-86+
Field pH	pH		5	5	5		4	4	5	4	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none	none	none	none	none	none	none
Organic/Inorganic Carbon											
Total Organic Carbon	%	40.10	0.89	<0.1	-	47.80	0.48	32.10	0.20	1.56	-
Inorganic Carbon	%	0.23	<0.1	<0.1	<0.1	0.29	<0.1	0.18	0.11	<0.1	<0.1
$CaCO_3$ Equivalent	%	1.94	<0.7	<0.7	<0.7	2.42	<0.7	1.51	0.88	0.76	<0.7
Total Carbon by Combustion	%	40.3	0.9	<0.1	-	48.1	0.5	32.3	0.3	1.6	-
Loss on Ignition @ 375ºC	%	65.5	1.7	<1	-	91.7	1.0	62.6	<1	2.8	-
Organic Matter	%	51.4	1.6	<1	-	71.8	1.1	49.1	<1	2.5	-
Particle Size/Texture											
% Sand (2.0 mm - 0.05 mm)	%	-	98.00	99.70	99.90	-	95.90	51.70	94.30	72.80	93.30
% Silt (0.05 mm - 2 mm)	%	-	1.32	<0.1	<0.1	-	3.81	41.50	5.03	24.00	5.44
% Clay (<2 mm)	%	-	0.65	0.21	<0.1	-	0.29	6.75	0.67	3.20	1.29
Texture	-	n/a	S	S	S	n/a	S	SL	S	SL	S
Plant-available Nutrients											
Available Nitrate-N	mg/kg	<10	<2	<2	-	<10	<2	<10	<2	<2	-
Available Phosphate-P	mg/kg	126.0	9.4	3.4	-	228.0	3.8	7.4	<2	2.1	-
Available Potassium-K	mg/kg	729	57	13	-	1370	35	243	20	33	-
Cation Exchange Capacity	meq/100 g	81.50	1.49	<0.8	-	71.00	1.08	93.60	1.17	6.79	-
Exchangeable Cations and Saturated Paste Extractables											
pH in Saturated Paste	pH	5.53	4.59	5.50	6.55	4.21	5.59	4.44	5.82	4.83	4.80
Conductivity Sat. Paste	dS m^{-1}	0.48	0.24	0.17	<0.1	0.58	0.20	0.40	0.20	0.19	0.66
Sodium Absorption Ratio (SAR)	SAR	<0.1	0.17	0.25	IN	<0.1	0.54	<0.1	0.61	0.58	0.51
% Saturation	%	630.0	42.6	30.0	28.8	703.0	35.4	351.0	28.5	42.7	25.2
Calcium (Ca)	mg/L	61.0	35.5	8.5	<2	44.9	14.8	43.6	14.7	19.6	57.9
Magnesium (Mg)	mg/L	23.7	11.0	7.5	<2	14.2	5.8	13.2	5.6	8.1	22.3
Potassium (K)	mg/L	54.6	12.8	3.2	1.9	110.0	9.8	12.4	6.0	5.6	5.3

TABLE 10

Soil chemistry and physical characteristic results from sampling stations located near Camsell Portage, September/October 2011.

Soil Order		**Brunisol**			
Soil Classification		**Eluviated Dystric Brunisol**			
Station		**Station 5**			
Horizon		**LFH**	**Ae**	**Bm**	**C**
Field Measurements	**Units**				
Depth	cm	18-0	0-19	19-92	92-100+
Field pH	pH		4	5	5
Presence of Carbonates (HCl Effervescence)	-	none	none	none	none
Organic/Inorganic Carbon					
Total Organic Carbon	%	46.80	0.47	0.27	-
Inorganic Carbon	%	0.32	<0.1	<0.1	<0.1
$CaCO_3$ Equivalent	%	2.64	0.71	<0.7	<0.7
Total Carbon by Combustion	%	47.1	0.5	0.3	-
Loss on Ignition @ 375ºC	%	86.7	<1	<1	-
Organic Matter	%	67.9	<1	<1	-
Particle Size/Texture					
% Sand (2.0 mm - 0.05 mm)	%	-	98.40	99.10	98.30
% Silt (0.05 mm - 2 mm)	%	-	1.10	0.46	1.17
% Clay (<2 mm)	%	-	0.50	0.41	0.53
Texture	-	n/a	S	S	S
Plant-available Nutrients					
Available Nitrate-N	mg/kg	<10	<2	<2	-
Available Phosphate-P	mg/kg	134.0	2.6	<2	-
Available Potassium-K	mg/kg	1570	28	12	-
Cation Exchange Capacity	meq/100 g	112.00	1.71	0.95	-
Exchangeable Cations and Saturated Paste Extractables					
pH in Saturated Paste	pH	5.44	4.74	5.03	5.26
Conductivity Sat. Paste	dS m^{-1}	0.64	0.69	<0.1	0.13
Sodium Absorption Ratio (SAR)	SAR	<0.1	0.20	<0.3	0.32
% Saturation	%	758.0	26.5	31.9	27.6
Calcium (Ca)	mg/L	88.4	85.4	7.1	14.3
Magnesium (Mg)	mg/L	21.2	15.7	2.5	3.7
Potassium (K)	mg/L	119.0	31.7	2.8	4.2

[1]LS = loamy sand, S = sand, SL = sandy loam.
IN = incalculable.

TABLE 11

Summary of the community program soil chemistry data collected for EARMP, fall 2011.

Parameter[1]	Black Lake		Uranium City		Camsell Portage		Fond du Lac		Stony Rapids		Wollaston Lake		SQG[3]
	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	Mean	S.D	
Metals													
Aluminum	5938	3718	11420	2332	8558	5744	1616	1339	8880	817	8320	1965	-
Cadmium	0.1	0.1	0.1	0[2]	0.1	0	0.1	0	0.1	0	0.1	0	1.4
Copper	2.92	1.06	2.20	0.83	2.05	1.64	0.56	0.13	2.14	0.88	1.40	0.19	63
Iron	6368	4285	12420	2738	10150	6504	1380	1492	7094	2674	9960	2574	-
Lead	3.64	1.13	3.86	1.07	3.53	2.09	1.10	0.27	3.12	0.50	2.92	0.83	70
Molybdenum	0.16	0.09	0.26	0.05	0.30	0.28	0.10	0	0.18	0.04	0.22	0.16	5
Nickel	3.58	1.81	5.74	1.87	4.78	3.12	1.06	0.97	4.36	1.39	4.42	1.04	50
Selenium	0.1	0	0.1	0	0.1	0	0.1	0	0.1	0	0.1	0	1
Uranium	0.46	0.11	0.70	0.31	0.63	0.19	0.38	0.16	0.72	0.24	1.12	0.39	23
Zinc	11.74	4.36	13.00	2.35	12.18	8.79	3.12	1.80	7.32	0.85	8.78	2.13	200
Radionuclides													
Lead-210 (Bq/g)	0.072	0.072	0.04	0	0.04	0	0.04	0	0.042	0.004	0.042	0.004	-
Polonium-210 (Bq/g)	0.054	0.048	0.028	0.015	0.018	0.005	0.014	0.005	0.018	0.004	0.024	0.009	-
Radium-226 (Bq/g)	0.024	0.011	0.022	0.004	0.033	0.019	0.014	0.005	0.022	0.013	0.046	0.029	-
Thorium-230 (Bq/g)	0.02	0	0.024	0.009	0.02	0	0.02	0	0.022	0.004	0.022	0.004	-
Trace Elements													
Arsenic	1.02	0.28	1.14	0.38	1.40	1.20	0.60	0.21	1.36	0.50	0.78	0.18	12
Cobalt	1.22	0.90	2.58	0.76	2.53	2.56	0.34	0.31	1.48	0.43	1.64	0.24	40
Vanadium	11.68	6.39	20.20	3.70	14.63	11.22	2.32	2.77	13.42	4.01	15.40	3.78	130

[1]All concentrations are presented on a µg/g dry weight basis, unless specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance"

[3]Soil Quality Guidelines for the protection of environment and human health (CCME 2012); agricultural guidelines presented unless otherwise specified.

S.D.=Standard deviation.

All statistics computed using concentration = 1* MDL for values <MDL.

APPENDICES

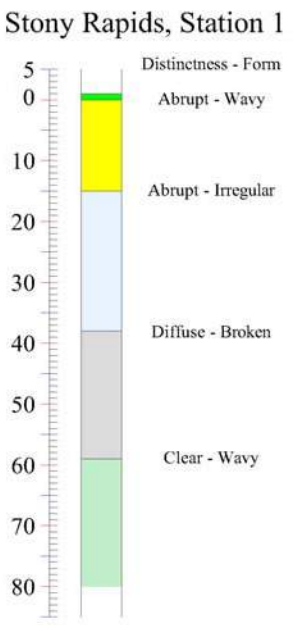
LIST OF APPENDICES

APPENDIX A-1

SOIL PIT LOG SHEETS

Project Number: 1489
Station Number: 1
Soil Classification: E.DYB

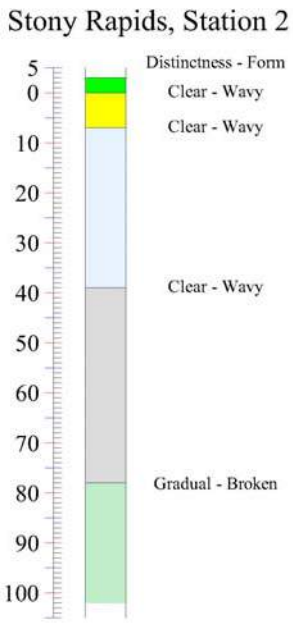
Community: Stony Rapids
Personnel: AD/JV
Date: 21-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
Ae	0-15	Reddish grey (10R 5.5/1.5, m)
Bm	15-38	Dark yellowish brown (10YR 4.5/5, m)
IC	38-59	Greyish brown (10YR 5.5/2, m)
IIC	59-80+	Light brown (7.5YR 6/3.5, m)

Project Number: 1489
Station Number: 2
Soil Classification: E.DYB

Community: Stony Rapids
Personnel: AD/JV
Date: 21-Sep-11

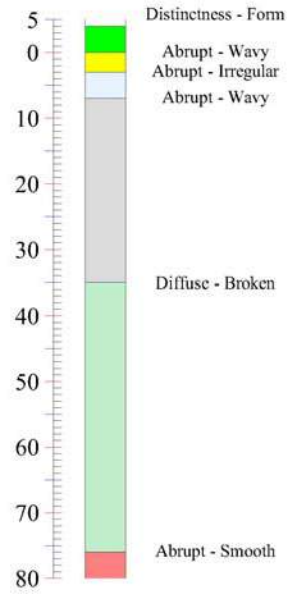


Horizon	Depth (cm)	Munsell Colour
LFH	3-0	n/a
Ae	0-7	Light grey (10YR 7/1, d)
Bm1	7-39	Dark yellowish brown (10YR 4.5/6, m)
Bm2	39-78	Yellowish brown (10YR 5/8, m)
C	78-102+	Very pale brown (10YR 7/3, d)

Project Number: 1489
Station Number: 3
Soil Classification: E.DYB

Community: Stony Rapids
Personnel: AD/JV
Date: 26-Sep-11

Stony Rapids, Station 3

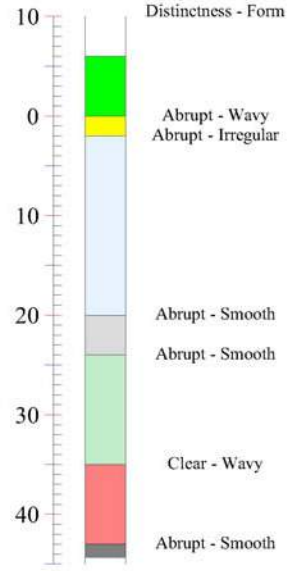


Horizon	Depth (cm)	Munsell Colour
LFH	4-0	n/a
Ahe	0-3	Greyish brown (10YR 5/2, m)
Ae	3-7	Light grey (10YR 7/2, m)
Bm	7-35	Yellow (10YR 7/6, m)
C	35-76	Very pale brown (10YR 7/3, m)
R	76+	n/a

Project Number: 1489
Station Number: 4
Soil Classification: E.EB

Community: Stony Rapids
Personnel: AD/JV
Date: 26-Sep-11

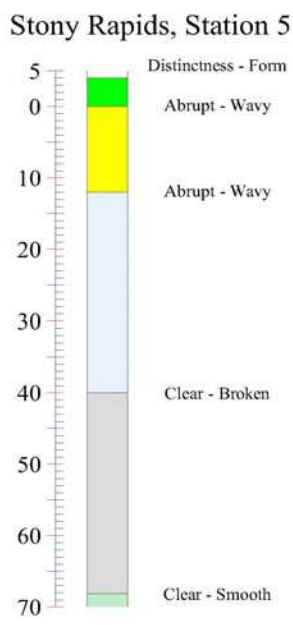
Stony Rapids, Station 4



Horizon	Depth (cm)	Munsell Colour
LFH	6-0	n/a
Ae	0-2	Light grey (10YR 7/1, m)
Bm	2-20	Dark yellowish brown (10YR 4.5/6, m)
Ab	20-24	Very pale brown (10YR 7/3, m)
Bfj	24-35	Yellowish brown (10YR 5/8, m)
C	35-43	Light yellowish brown (10YR 6/4, m)
R	43+	n/a

Project Number: 1489
Station Number: 5
Soil Classification: E.EB

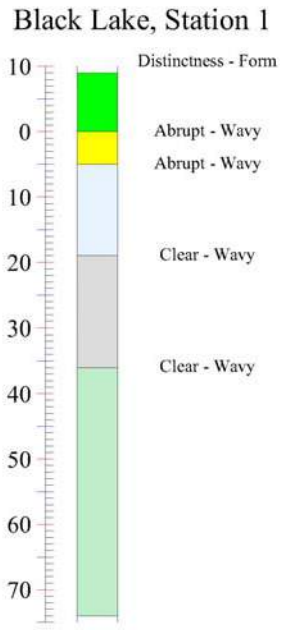
Community: Stony Rapids
Personnel: AD/JV
Date: 26-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	4-0	n/a
Ae	0-12	Light brownish grey (10YR 6/2, w)
Bfj	12-40	Brownish yellow (10YR 6/5, m) Dark yellowish brown (10YR 4/6, m)
C	40-68	Pale brown (10YR 6.5/2.5, m)
R	68+	n/a

Project Number: 1489
Station Number: 1
Soil Classification: E.DYB

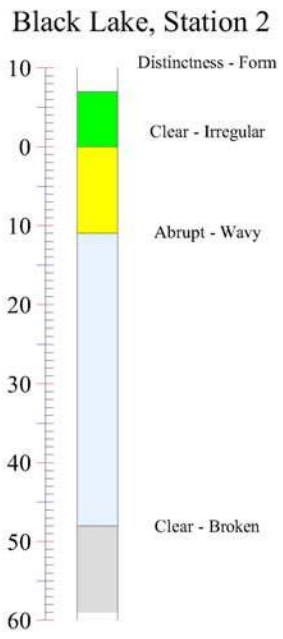
Community: Black Lake
Personnel: AD/JV
Date: 25-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	9-0	n/a
Ae	0-5	Light brownish grey (10YR 6/2, m)
Bh	5-19	Dark yellowish brown (10YR 3/6, m)
Bfj	19-36	Pale brown (10YR 6/3, m)
C	36-74+	Very pale brown (10YR 7/4, m)

Project Number: 1489
Station Number: 2
Soil Classification: DU.DYB

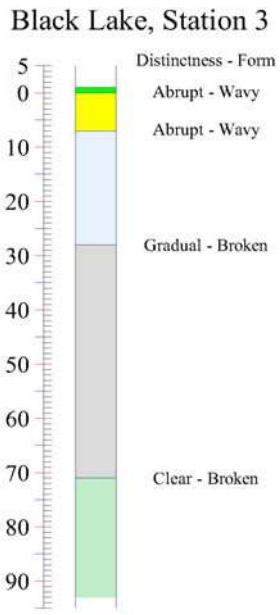
Community: Black Lake
Personnel: AD/JV
Date: 25-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	7-0	n/a
Ae	0-11	Light brownish grey (10YR 6/2, m)
Bhfjccj	11-48	Strong brown (7.5YR 4/5, m)
C	48-59+	Light yellowish brown (10YR 6/4, m)

Project Number: 1489
Station Number: 3
Soil Classification: E.EB

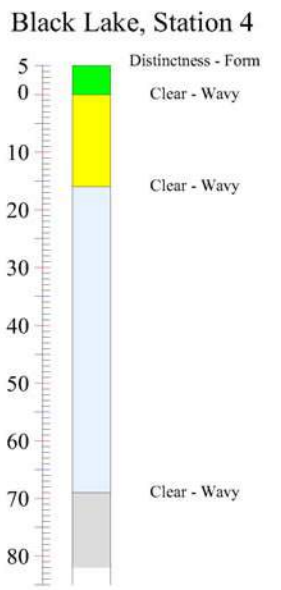
Community: Black Lake
Personnel: AD/JV
Date: 22-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
Ae	0-7	Pinkish grey (7.5YR 7.5/1.5, d)
Bm1	7-28	Yellowish brown (10YR 5/8, m)
Bm2	28-71	Very pale brown (10YR 7/4, m)
C	71-93+	Very pale brown (10YR 8/2, m)

Project Number: 1489
Station Number: 4
Soil Classification: E.DYB

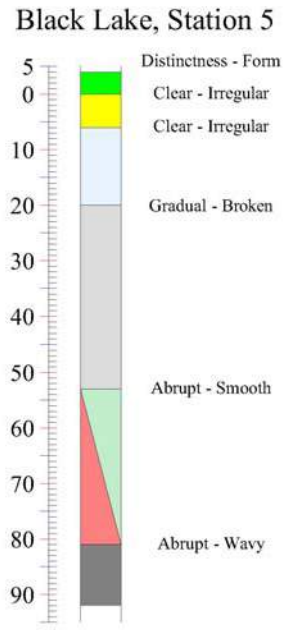
Community: Black Lake
Personnel: AD/JV
Date: 23-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	5-0	n/a
Ae	0-16	Light brownish grey (10YR 6.5/2, m)
Bm	16-69	Dark yellowish brown (10YR 4/5, m)
C	69-82+	Light brownish grey (10YR 6.5/2, m)

Project Number: 1489
Station Number: 5
Soil Classification: E.DYB

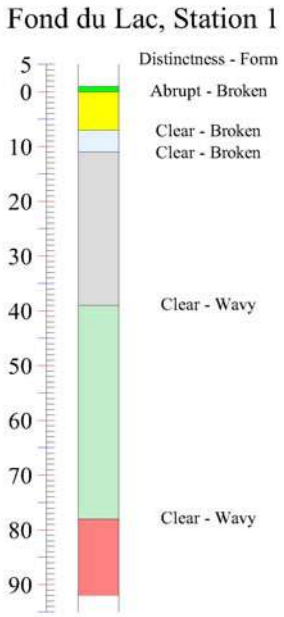
Community: Black Lake
Personnel: AD/JV
Date: 22-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	4-0	n/a
Ae	0-6	Weak red (2.5YR 6.5/1.5, vm)
Bm1	6-20	Yellowish brown (10YR 5/6, d)
Bm2	20-53	Brownish yellow (10YR 6.5/6, d)
IC (matrix)	53-81	Greyish brown (10YR 5.5/2.5, m)
IC (sand)	53-81	Brown (10YR 5/3, m)
IIC	81-92+	Yellowish brown (10YR 5/4, m)

Project Number: 1489
Station Number: 1
Soil Classification: O.DYB

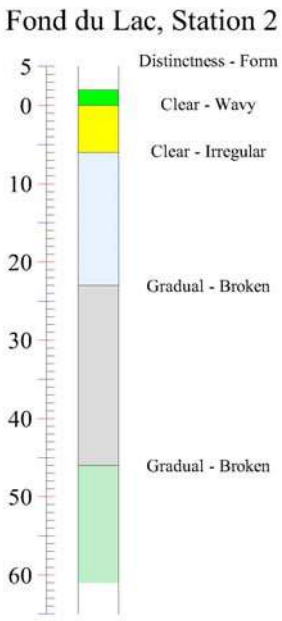
Community: Fond du Lac
Personnel: AD/JV
Date: 23-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
IC	0-7	Light grey (10YR 7/2, d)
Ahb	7-11	Very dark greyish brown (10YR 3/2, m)
IIBm1	11-39	Light brownish grey (10YR 6.5/2.5, m)
IIBm2	39-78	Light yellowish brown (10YR 6/4, m)
IIC	78-92+	Light brownish grey (10YR 6/2, m)

Project Number: 1489
Station Number: 2
Soil Classification: E.DYB

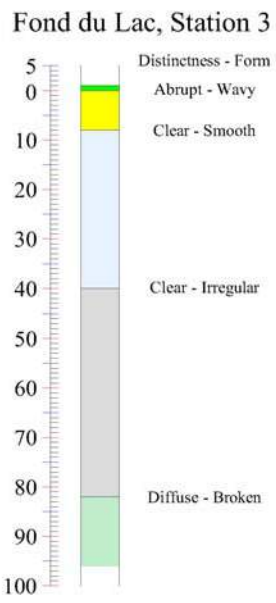
Community: Fond du Lac
Personnel: AD/JV
Date: 23-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	2-0	n/a
Ae	0-6	Pinkish white (7.5YR 8/2, d)
Bm	6-23	Pink (7.5YR 8/3, sm)
IC	23-46	Pale brown (10YR 6/3, m)
IIC	46-61+	Very pale brown (10YR 7/3, m)

Project Number: 1489
Station Number: 3
Soil Classification: E.DYB

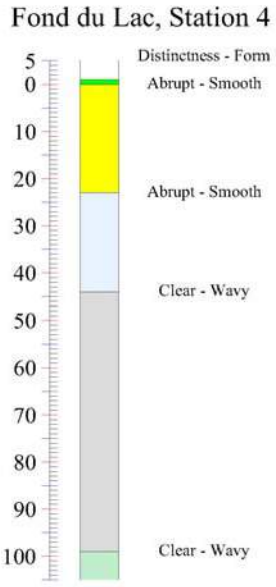
Community: Fond du Lac
Personnel: AD/JV
Date: 24-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
IAhe	0-8	Light grey (10YR 7/1, d)
IIAe	8-40	Pinkish white (5YR 8/2, d)
IIBm	40-82	Very pale brown (10YR 7/4, m)
IIC	82-96+	Light grey (10YR 7.5/2, m)

Project Number: 1489
Station Number: 4
Soil Classification: E.DYB

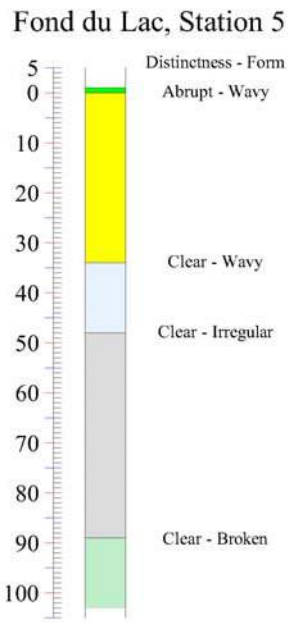
Community: Fond du Lac
Personnel: AD/JV
Date: 24-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
IAe	0-23	Pinkish white (7.5YR 8/2, m)
IIBm1	23-44	Pink (7.5YR 8/3, m)
IIBm2	44-99	Yellowish brown (10YR 5.5/6, m)
IIC	99-105+	Very pale brown (10YR 7/4, m)

Project Number: 1489
Station Number: 5
Soil Classification: E.DYB

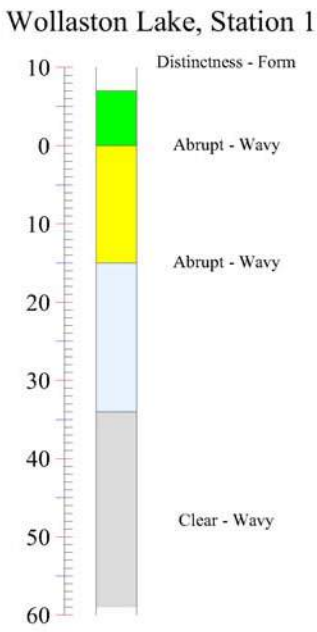
Community: Fond du Lac
Personnel: AD/JV
Date: 24-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	1-0	n/a
IAe	0-34	Pinkish white (7.5YR 8/2.5, m)
IIAb	34-48	Light grey (10YR 7/2, m)
IIBm	48-89	Light yellowish brown (10YR 6.5/4, m)
IIC	89-103+	Very pale brown (10YR 7/3, m)

Project Number: 1489
Station Number: 1
Soil Classification: E.EB

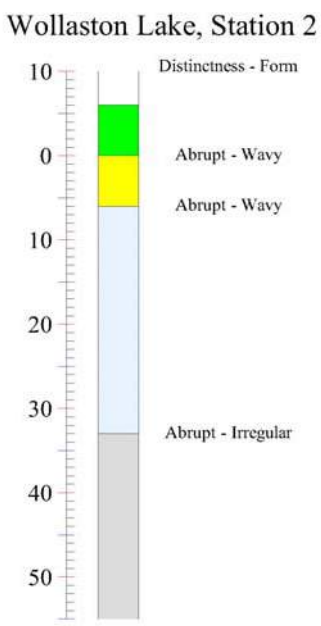
Community: Wollaston Lake
Personnel: AD/JV
Date: 27-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	7-0	n/a
Ae	0-15	Light brownish grey (10YR 6/2, sm)
Bfj	15-34	Brownish yellow (10YR 6.5/6, m) Dark yellowish brown (10YR 4/6, m)
C	34-56+	Pale brown (10YR 6.5/3, m)

Project Number: 1489
Station Number: 2
Soil Classification: E.DYB

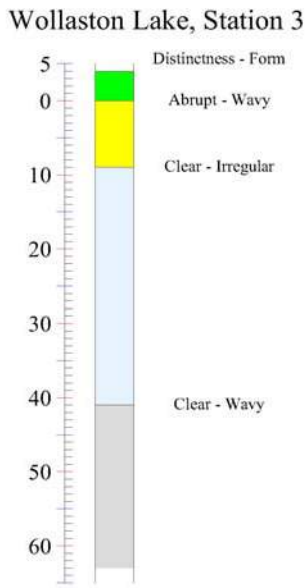
Community: Wollaston Lake
Personnel: AD/JV
Date: 27-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	6-0	n/a
Ae	0-6	Light grey (10YR 7/2, m)
Bfj	6-33	Brownish yellow (10YR 6/7, m) Yellowish brown (10YR 5/8, m)
C	33-50+	Very pale brown (10YR 7/3, m)

Project Number: 1489
Station Number: 3
Soil Classification: E.EB

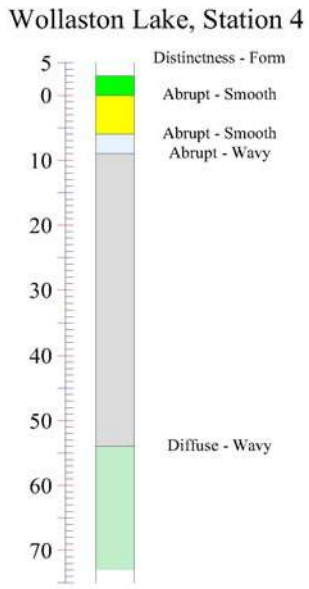
Community: Wollaston Lake
Personnel: AD/JV
Date: 27-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	4-0	n/a
Ae	0-9	Greyish brown (10YR 5.5/2, m)
Bfj	9-41	Brownish yellow (10YR 6/6, m) Dark yellowish brown (10YR 4/5, m)
C	41-63+	Light yellowish brown (10YR 6/4, m)

Project Number: 1489
Station Number: 4
Soil Classification: E.DYB

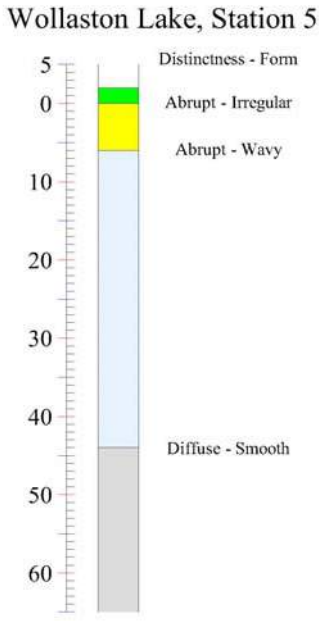
Community: Wollaston Lake
Personnel: AD/JV
Date: 28-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	3-0	n/a
Ahe	0-6	Brownish yellow (10YR 6/6, m)
Aeb	6-9	Light grey (10YR 7/2, m)
Bfj	9-54	Yellowish brown (10YR 5/8, d) Very pale brown (10YR 7/5, d)
C	54-72+	Very pale brown (10YR 7/3, sm)

Project Number: 1489
Station Number: 5
Soil Classification: E.DYB

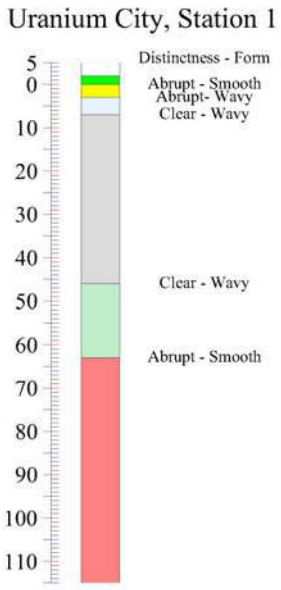
Community: Wollaston Lake
Personnel: AD/JV
Date: 28-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	2-0	n/a
Ae	0-6	Light brownish grey (10YR 6/2, m)
Bfj	6-44	Dark yellowish brown (10YR 4/6, m) Brownish yellow (10YR 6.5/6, m)
C	44-65+	Pale brown (10YR 6.5/3.5, m)

Project Number: 1489
Station Number: 1
Soil Classification: E.EB

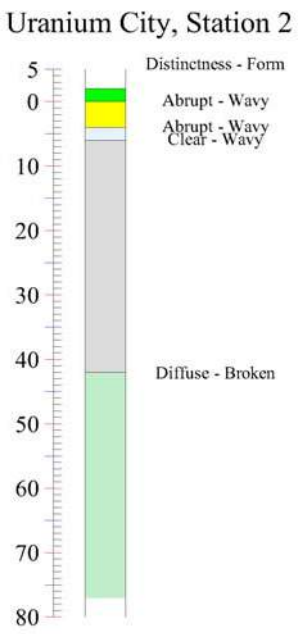
Community: Uranium City
Personnel: AD/JV
Date: 30-Sep-11



Horizon	Depth (cm)	Munsell Colour
LFH	2-0	n/a
Ahe	0-3	Yellowish brown (10YR 5/4, m)
Ae	3-7	Very pale brown (10YR 7/3, d)
Bm1	7-46	Yellowish brown (10YR 5/7, m)
Bm2	46-63	Light yellowish brown (10YR 6/5, m)
C	63-115+	Very pale brown (10YR 7/3, sm)

Project Number: 1489
Station Number: 2
Soil Classification: E.DYB

Community: Uranium City
Personnel: AD/JV
Date: 30-Sep-11

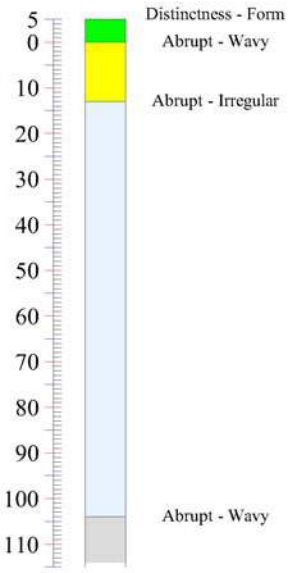


Horizon	Depth (cm)	Munsell Colour
LFH	2-0	n/a
Ahe	0-4	Yellowish brown (10YR 5/5, m)
Ae	4-6	Pale brown (10YR 6/3, m)
Bm	6-42	Yellow (10YR 7/7, sm)
C	42-77+	Light grey (10YR 7/2.5, m)

Project Number: 1489
Station Number: 3
Soil Classification: E.EB

Community: Uranium City
Personnel: AD/JV
Date: 01-Oct-11

Uranium City, Station 3

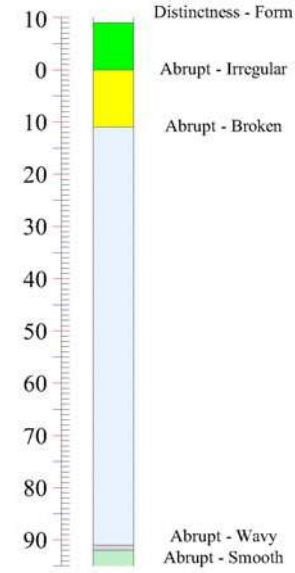


Horizon	Depth (cm)	Munsell Colour
LFH	5-0	n/a
Ae	0-13	Light grey (10YR 7.5/2, vd)
Btj	13-104	Light yellowish brown (10YR 6/4, d)
C	104-114+	Pale brown (10YR 6/3, d)

Project Number: 1489
Station Number: 4
Soil Classification: E.EB

Community: Uranium City
Personnel: AD/JV
Date: 01-Oct-11

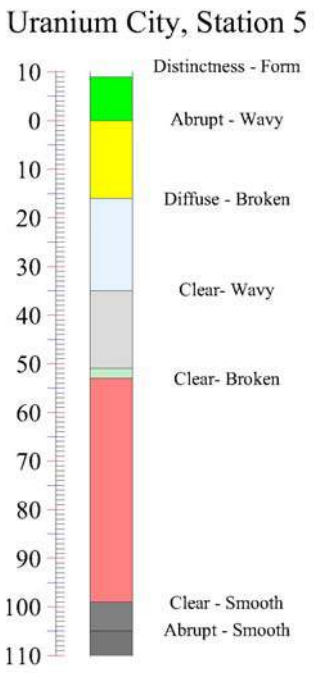
Uranium City, Station 4



Horizon	Depth (cm)	Munsell Colour
LFH	9-0	n/a
Ae	0-11	Light grey (10YR 7/2, sm)
Bfj	11-91	Yellowish brown (10YR 5.5/7, m) Dark yellowish brown (10YR 4/6, m)
C	91-92	Dark yellowish brown (10YR 4.5/4, m)
R	92+	n/a

Project Number: 1489
Station Number: 5
Soil Classification: GLE.DYB

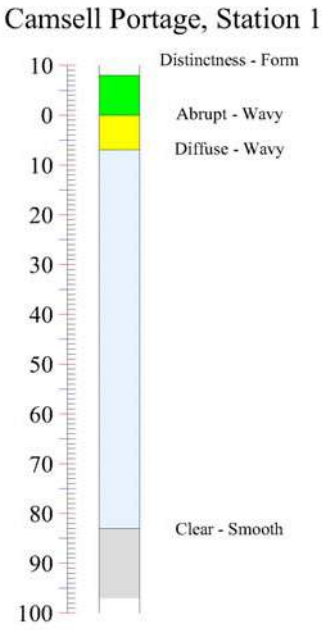
Community: Uranium City
Personnel: AD/JV
Date: 02-Oct-11



Horizon	Depth (cm)	Munsell Colour
LFH	9-0	n/a
Ae	0-16	White (10YR 8/1, sm)
IIBm	16-35	Yellowish brown (10YR 5/7, m)
IIIBm	35-51	Brownish yellow (10YR 6/5, m)
IIIBx	51-53	
IVBgj	53-99	Brownish yellow (10YR 6/6, m) Reddish yellow (7.5YR 6/8, m)
Cg	99-105	Light yellowish brown (10YR 6/4, m)
R	105+	n/a

Project Number: 1489
Station Number: 1
Soil Classification: E.DYB

Community: Camsell Portage
Personnel: AD/JV
Date: 03-Oct-11

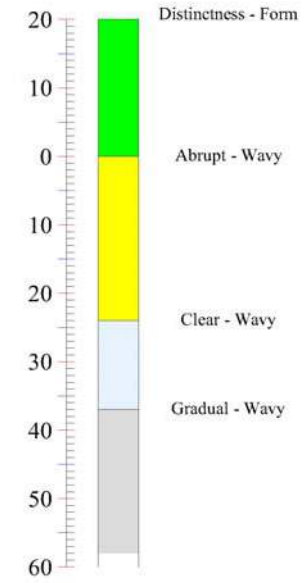


Horizon	Depth (cm)	Munsell Colour
LFH	8-0	n/a
Ae	0-7	Very pale brown (10YR 7/3, d)
Bm	7-83	Yellowish brown (10YR 5/7, m)
C	83-97+	Yellowish brown (10YR 5.5/4, m)

Project Number: 1489
Station Number: 2
Soil Classification: E.DYB

Community: Camsell Portage
Personnel: AD/JV
Date: 04-Oct-11

Camsell Portage, Station 2

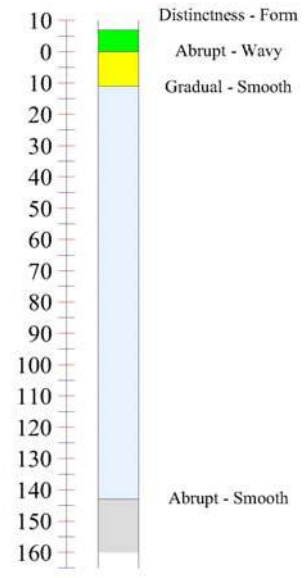


Horizon	Depth (cm)	Munsell Colour
LFH	20-0	n/a
Ae	0-24	Very pale brown (10YR 7/3, d)
Bm	24-37	Light yellowish brown (10YR 6/5, sm)
C	37-58+	Pale brown (10YR 6/3, m)

Project Number: 1489
Station Number: 3
Soil Classification: E.DYB

Community: Camsell Portage
Personnel: AD/JV
Date: 04-Oct-11

Camsell Portage, Station 3

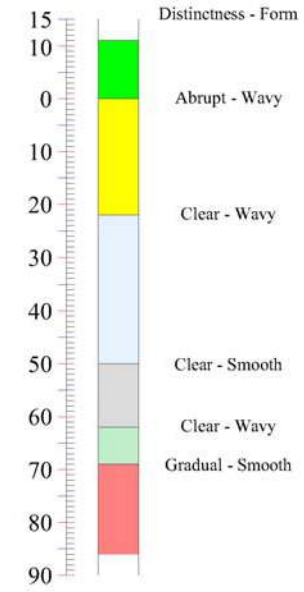


Horizon	Depth (cm)	Munsell Colour
LFH	7-0	n/a
Ahe	0-11	Greyish brown (10YR 5.5/2.5, vd)
Bm	11-143	Very pale brown (10YR 7/4, sm)
C	143-165+	Very pale brown (10YR 7/3.5, m)

Project Number: 1489
Station Number: 4
Soil Classification: E.DYB

Community: Camsell Portage
Personnel: AD/JV
Date: 05-Oct-11

Camsell Portage, Station 4

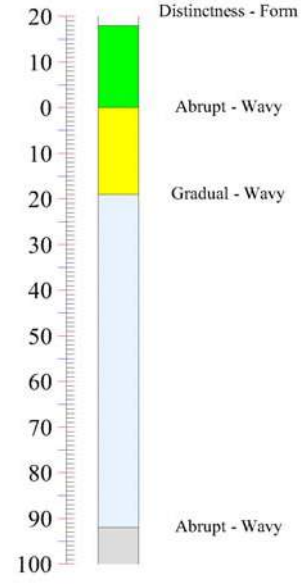


Horizon	Depth (cm)	Munsell Colour
LFH	11-0	n/a
Ae	0-22	Very pale brown (10YR 7/4, m)
Of	22-50	n/a, vm
Aeb	50-62	Very pale brown (10YR 8/4, w)
Btj	62-69	Light grey (10YR 7/2, m)
C	69-86+	Light yellowish brown (10YR 6/4, w)

Project Number: 1489
Station Number: 5
Soil Classification: E.DYB

Community: Camsell Portage
Personnel: AD/JV
Date: 05-Oct-11

Camsell Portage, Station 5



Horizon	Depth (cm)	Munsell Colour
LFH	18-0	n/a
Ae	0-19	Pale brown (10YR 6/3, vd)
Bm	19-92	Brown (10YR 5.5/3, d)
C	92-100+	Light yellowish brown (10YR 6/4, sm)

APPENDIX A-2

SOIL PIT HABITAT PHOTOGRAPHS

APPENDIX A-2: LIST OF SOIL PIT PHOTOGRAPGHS

Photo 1 Habitat photo at Stony Rapids, Soil Station 1. At (UTM NAD83 Zone 13) 450774 E, 6568714 N (September 21st, 2011).

Photo 2 Habitat photo at Stony Rapids, Soil Station 2. At (UTM NAD83 Zone 13) 450729 E, 6568749 N (September 21st, 2011).

Photo 3 Habitat photo at Stony Rapids, Soil Station 3. At (UTM NAD83 Zone 13) 447202 E, 6560666 N (September 26th, 2011).

Photo 4 Habitat photo at Stony Rapids, Soil Station 4. At (UTM NAD83 Zone 13) 446704 E, 6560587 N (September 26th, 2011).

Photo 5 Habitat photo at Stony Rapids, Soil Station 5. At (UTM NAD83 Zone 13) 447372 E, 6561395 N (September 26th, 2011).

Photo 6 Habitat photo at Black Lake, Soil Station 1. At (UTM NAD83 Zone 13) 474164 E, 6558150 N (September 25th, 2011).

Photo 7 Habitat photo at Black Lake, Soil Station 2. At (UTM NAD83 Zone 13) 474198 E, 6558146 N (September 25th, 2011).

Photo 8 Habitat photo at Black Lake, Soil Station 3. At (UTM NAD83 Zone 13) 474169 E, 6558126 N (September 22nd, 2011).

Photo 9 Habitat photo at Black Lake, Soil Station 4. At (UTM NAD83 Zone 13) 468738 E, 6557069 N (September 23rd, 2011).

Photo 10 Habitat photo at Black Lake, Soil Station 5. At (UTM NAD83 Zone 13) 468768 E, 6557126 N (September 22nd, 2011).

Photo 11 Habitat photo at Fond du Lac, Soil Station 1. At (UTM NAD83 Zone 13) 359705 E, 6576794 N (September 23rd, 2011).

Photo 12 Habitat photo at Fond du Lac, Soil Station 2. At (UTM NAD83 Zone 13) 359686 E, 6576827 N (September 23rd, 2011).

Photo 13 Habitat photo at Fond du Lac, Soil Station 3. At (UTM NAD83 Zone 13) 359705 E, 6576866 N (September 24th, 2011).

Photo 14 Habitat photo at Fond du Lac, Soil Station 4. At (UTM NAD83 Zone 13) 359646 E, 6577336 N (September 24th, 2011).

Photo 15 Habitat photo at Fond du Lac, Soil Station 5. At (UTM NAD83 Zone 13) 359761 E, 6577363 N (September 24th, 2011).

Photo 16 Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 1. At (UTM NAD83 Zone 13) 609867 E, 6443197 N (September 27th, 2011).

Photo 17 Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 2. At (UTM NAD83 Zone 13) 609929 E, 6443198 N (September 27th, 2011).

Photo 18 Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 3. At (UTM NAD83 Zone 13) 609834 E, 6443129 N (September 27th, 2011).

Photo 19 Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 4. At (UTM NAD83 Zone 13) 602251 E, 6435123 N (September 28th, 2011).

Photo 20 Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 5. At (UTM NAD83 Zone 13) 602294 E, 6435176 N (September 28th, 2011).

Photo 21 Habitat photo at Uranium City, Soil Station 1. At (UTM NAD83 Zone 12) 644931 E, 6609858 N (September 30th, 2011).

Photo 22 Habitat photo at Uranium City, Soil Station 2. At (UTM NAD83 Zone 12) 644499 E, 6606499 N (September 30th, 2011).

Photo 23 Habitat photo at Uranium City, Soil Station 3. At (UTM NAD83 Zone 12) 630085 E, 6594113 N (October 1st, 2011).

Photo 24 Habitat photo at Uranium City, Soil Station 4. At (UTM NAD83 Zone 12) 630122 E, 6594277 N (October 1st, 2011).

Photo 25 Habitat photo at Uranium City, Soil Station 5. At (UTM NAD83 Zone 12) 637984 E, 6609856 N (October 2nd, 2011).

Photo 26 Habitat photo at Camsell Portage, Soil Station 1. At (UTM NAD83 Zone 12) 597544 E, 6609702 N (October 3rd, 2011).

Photo 27 Habitat photo at Camsell Portage, Soil Station 2. At (UTM NAD83 Zone 12) 598246 E, 6608138 N (October 4th, 2011).

Photo 28 Habitat photo at Camsell Portage, Soil Station 3. At (UTM NAD83 Zone 12) 598199 E, 6608422 N (October 4th, 2011).

Photo 29 Habitat photo at Camsell Portage, Soil Station 4. At (UTM NAD83 Zone 12) 599598 E, 6605364 N (October 5th, 2011).

Photo 30 Habitat photo at Camsell Portage, Soil Station 5. At (UTM NAD83 Zone 12) 598821 E, 6607198 N (October 5th, 2011).

Photo 1. Habitat photo at Stony Rapids, Soil Station 1. At (UTM NAD83 Zone 13) 450774 E, 6568714 N (September 21st, 2011).

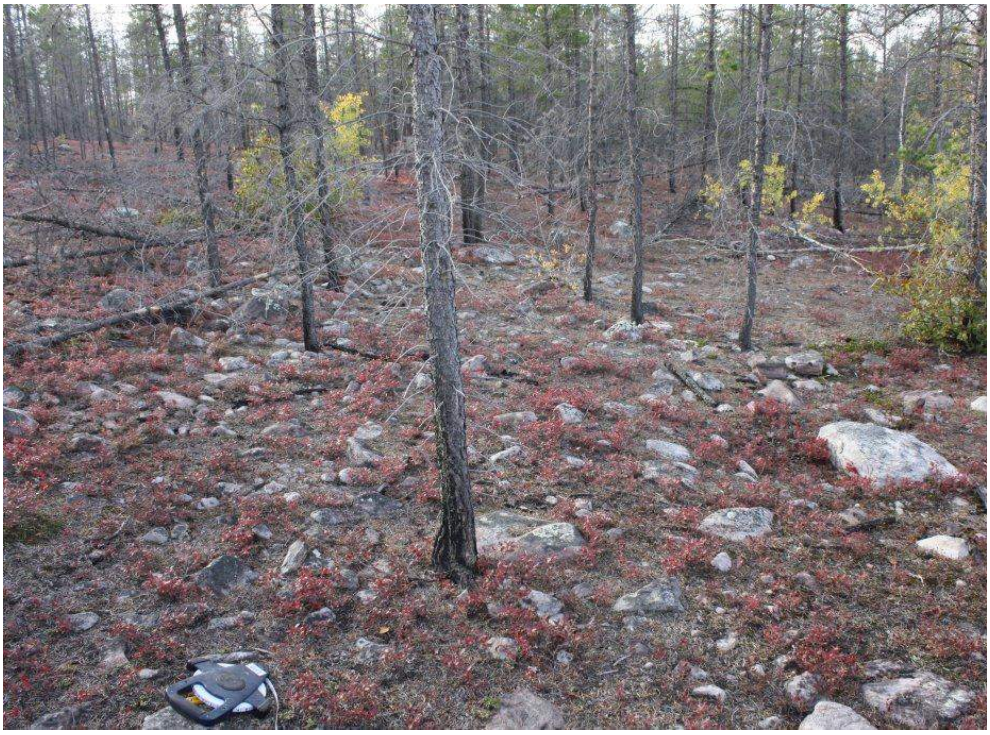


Photo 2. Habitat photo at Stony Rapids, Soil Station 2. At (UTM NAD83 Zone 13) 450729 E, 6568749 N (September 21st, 2011).

Photo 3. Habitat photo at Stony Rapids, Soil Station 3. At (UTM NAD83 Zone 13) 447202 E, 6560666 N (September 26th, 2011).

Photo 4. Habitat photo at Stony Rapids, Soil Station 4. At (UTM NAD83 Zone 13) 446704 E, 6560587 N (September 26th, 2011).

Photo 5. Habitat photo at Stony Rapids, Soil Station 5. At (UTM NAD83 Zone 13) 447372 E, 6561395 N (September 26th, 2011).

Photo 6. Habitat photo at Black Lake, Soil Station 1. At (UTM NAD83 Zone 13) 474164 E, 6558150 N (September 25th, 2011).

Photo 7. Habitat photo at Black Lake, Soil Station 2. At (UTM NAD83 Zone 13) 474198 E, 6558146 N (September 25th, 2011).

Photo 8. Habitat photo at Black Lake, Soil Station 3. At (UTM NAD83 Zone 13) 474169 E, 6558126 N (September 22nd, 2011).

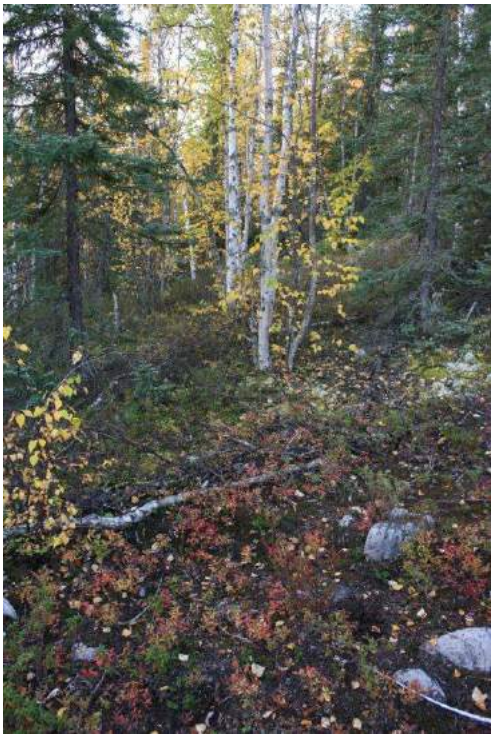


Photo 9. Habitat photo at Black Lake, Soil Station 4. At (UTM NAD83 Zone 13) 468738 E, 6557069 N (September 23rd, 2011).

Photo 10. Habitat photo at Black Lake, Soil Station 5. At (UTM NAD83 Zone 13) 468768 E, 6557126 N (September 22nd, 2011).

Photo 11. Habitat photo at Fond du Lac, Soil Station 1. At (UTM NAD83 Zone 13) 359705 E, 6576794 N (September 23rd, 2011).

Photo 12. Habitat photo at Fond du Lac, Soil Station 2. At (UTM NAD83 Zone 13) 359686 E, 6576827 N (September 23rd, 2011).

Photo 13. Habitat photo at Fond du Lac, Soil Station 3. At (UTM NAD83 Zone 13) 359705 E, 6576866 N (September 24th, 2011).

Photo 14. Habitat photo at Fond du Lac, Soil Station 4. At (UTM NAD83 Zone 13) 359646 E, 6577336 N (September 24th, 2011).

Photo 15. Habitat photo at Fond du Lac, Soil Station 5. At (UTM NAD83 Zone 13) 359761 E, 6577363 N (September 24th, 2011).

Photo 16. Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 1. At (UTM NAD83 Zone 13) 609867 E, 6443197 N (September 27th, 2011).

Photo 17. Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 2. At (UTM NAD83 Zone 13) 609929 E, 6443198 N (September 27th, 2011).

Photo 18. Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 3. At (UTM NAD83 Zone 13) 609834 E, 6443129 N (September 27th, 2011).

Photo 19. Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 4. At (UTM NAD83 Zone 13) 602251 E, 6435123 N (September 28th, 2011).

Photo 20. Habitat photo at Wollaston Lake/Hatchet Lake, Soil Station 5. At (UTM NAD83 Zone 13) 602294 E, 6435176 N (September 28th, 2011).

Photo 21. Habitat photo at Uranium City, Soil Station 1. At (UTM NAD83 Zone 12) 644931 E, 6609858 N (September 30th, 2011).

Photo 22. Habitat photo at Uranium City, Soil Station 2. At (UTM NAD83 Zone 12) 644499 E, 6606499 N (September 30th, 2011).

Photo 23. Habitat photo at Uranium City, Soil Station 3. At (UTM NAD83 Zone 12) 630085 E, 6594113 N (October 1st, 2011).

Photo 24. Habitat photo at Uranium City, Soil Station 4. At (UTM NAD83 Zone 12) 630122 E, 6594277 N (October 1st, 2011).

Photo 25. Habitat photo at Uranium City, Soil Station 5. At (UTM NAD83 Zone 12) 637984 E, 6609856 N (October 2nd, 2011).

Photo 26. Habitat photo at Camsell Portage, Soil Station 1. At (UTM NAD83 Zone 12) 597544 E, 6609702 N (October 3rd, 2011).

Photo 27. Habitat photo at Camsell Portage, Soil Station 2. At (UTM NAD83 Zone 12) 598246 E, 6608138 N (October 4th, 2011).

Photo 28. Habitat photo at Camsell Portage, Soil Station 3. At (UTM NAD83 Zone 12) 598199 E, 6608422 N (October 4th, 2011).

Photo 29. Habitat photo at Camsell Portage, Soil Station 4. At (UTM NAD83 Zone 12) 599598 E, 6605364 N (October 5th, 2011).

Photo 30. Habitat photo at Camsell Portage, Soil Station 5. At (UTM NAD83 Zone 12) 598821 E, 6607198 N (October 5th, 2011).

APPENDIX A-3

ECOLOGICAL LAND CLASSIFICATION AND SURFICIAL GEOLOGY

APPENDIX A3: ECOLOGICAL LAND CLASSIFICATION AND SURFICIAL GEOLOGY

To have an accurate understanding of the soils in a study area, it is necessary to have knowledge of the soil-forming factors that have influenced the development of the soil in a given area. These factors include: parent material, topography, climate, living organisms (predominantly vegetation, although also including soil fauna and microorganisms), and the length of time for soil development. Therefore, for each of the six communities, ecosystem descriptions and surficial geology were researched. Supplementary site specific information related to local characteristics was recorded at the time of the field studies. The following sections outline the results of the desktop research related to ecosystem characteristics and geology for each of the thirty community soil sampling sites.

1.0 ECOLOGICAL LAND CLASSIFICATION

Ecological Land Classification can be defined as a process of classifying areas of land as discrete systems based on the unique interactions of geology, climate, soils, landforms, vegetation, and even human factors in a particular area (Acton et al. 1998). Within Saskatchewan, the most general ecological classification category is the ecozone.

1.1 Ecozones

All of the sampling stations in this study were located across two ecozones in Saskatchewan; the Boreal Shield and the Taiga Shield (Appendix A-4, Table 1). In general, the Taiga Shield ecozone is the northernmost ecozone in Saskatchewan, and marks a transitional area between boreal forest and tundra. It is a rolling plain with irregular local relief that is underlain entirely by rocks of the Precambrian Shield (Acton et al. 1998). The Boreal Shield ecozone separates the warmer Boreal Plains ecozone to the south from the colder Taiga Shield to the north. It is a large ecozone, covering nearly one third of the province, and has underlying sandstone bedrock in the northwestern part of the ecozone and hard Precambrian basement rock in the remainder. The areas underlain by sandstone are covered with a relatively thick layer of glacier till compared with the sparsely-covered basement rock areas. Black spruce is the dominant species where soil can support tree growth, and the landscape is dominated by lichens, shrubs, and forbs where bedrock is exposed (Acton et al. 1998).

1.2 Ecoregions

Ecozones are further subdivided into ecoregions. The two ecoregions within the Taiga Shield ecozone are the Selwyn Lake Upland and the Tazin Lake Upland. Sampling stations are located in both of these ecoregions.

The Selwyn Lake Upland ecoregion has a gently sloping terrain formed from crystalline bedrock. Most of the bedrock is covered by sandy glacial deposits, although rugged bedrock exposures are common (Fung 1999). The dominant morphologies of the landscape are morainal or till plains and drumlinoid moraines (Acton et al. 1998). Numerous lakes and sandy ridges tend to run in a northeast-southwest direction and the typical vegetation is small black spruce with a lichen understory (Fung 1999).

The Tazin Lake Upland is underlain by metamorphic rock known as the Rae Province, which is believed to have been involved in a Himalayan-style continental collision. The topography in this ecoregion is very rugged and characterised by steeply sloping, ridged to hummocky bedrock outcrops, and a local relief approaching 100 m. The climate is subarctic and is characterized by cool, short summers, and very cold and long winters (Acton et al. 1998). Lake Athabasca, being such a large water body, has an effect on the climate of this area, maintaining higher than normal evening temperatures during unfrozen periods.

Soil types are limited within both of these ecoregions located in the Taiga Shield ecozone. Bedrock outcrops form the upland areas, with a thin cover of moraine in low areas between outcrops and in some upland regions. Brunisolic soils are found scattered on the intermediate slopes and often associated with sandy or stony glacial deposits. Fens are characterised by organic soils, and Cryosols can be found occurring in some permanently frozen bogs (Acton et al. 1998).

The Boreal Shield ecozone is also divided into two ecoregions; the Athabasca Plain and the Churchill River Upland. The Athabasca Plain ecoregion is characterized by flat-lying sandstone bedrock and a nearly continuous cover of sandy glacial deposits (Fung 1999). The topography of the area is typical of the Precambrian Shield, with extensive areas of rock forming broad, smooth uplands and lowlands. Topographic relief can be low, but in areas where the glacier preferentially eroded low-lying areas, relief can be quite rugged.

Prominent eskers are common in this area, but essentially this area is a drumlinoid moraine that is extensively covered in undulating glaciofluvial outwash deposits.

Brunisolic soils dominate the well-drained slope positions in some of the landscapes, with Gleysols and Organics and local Cryosols in the numerous small, poorly drained swales and flats (Acton et al. 1998). Lakes, fens, and bogs fill the valleys and depressions between the ridges, hills, and knolls found on the landscape. Many of the lakes and intervening bedrock ridges in the region are elongated, oriented on a northeast to southwest axis resulting in a trellis-like drainage network, with many rivers flowing parallel to one another (Acton et al. 1998).

The Churchill River Upland ecoregion is located on the Precambrian Shield and is characterized by a mix of bedrock outcrops, glacial deposits, wetlands, and lakes. Glacial deposits are thin and discontinuous. Local topography is uneven and fens, bogs, and lakes occur in the depression areas (Acton et al. 1998). The climate in the area is subarctic and is characterized by cool, short summers, and very cold and long winters (Acton et al. 1998). Several different soil types occur in the ecoregion. Dystric and Eutric Brunisols are associated with sandy uplands, and Gray Luvisols occur on clayey lacustrine uplands and loamy to silty fluvioglacial deposits. On level ground and in depressional areas, Gleysolic soils are associated with clayey sediments, whereas Mesisols and Organic Cryosols occur in shallow to deep peatlands (ESWG 1995).

1.3 Landscape Areas

Ecological land classification categories may be divided further yet into landscape areas, of which there may be up to 25 within an ecoregion (Fung 1999). There are five landscape areas within which sampling stations for this project were located: the Fond du Lac Lowland and Athabasca Dunes, both located within the Athabasca Plain ecoregion, Wollaston Lake Plain within the Churchill River Upland, Nueltin Lake Plain in the Selwyn Lake Upland, and Uranium City Upland in the Tazin Lake Upland ecoregion.

All five of the Stony Rapids soil sampling stations (as well as Black Lake Stations 4 and 5) are located in the Fond du Lac Lowland landscape area of the Athabasca Plain ecoregion in northern Saskatchewan (Appendix A-4, Table 1). It is a nearly level area dominated by sandy glacial till with prominent drumlins and glaciofluvial outwash deposits occurring in the southern part of the landscape area. Areas of sandy

glaciolacustrine plains occur at lower elevations, bordering large waterbodies such as Fond du Lac and Black Lake (Acton et al. 1998).

The Athabasca Dunes landscape area is a unique area of low relief with very sandy surficial materials, and exhibits features such as sand dunes and strandlines (former beaches from historic glacial lakes) along the shores of Lake Athabasca (Acton et al. 1998). All five of the soil sampling stations at Fond du Lac occur in the Athabasca Dunes landscape area (as well as Camsell Portage Stations 4 and 5). The unique features found in this area were formed over time as large glacial lakes retreated, leaving large volumes of sand which was blown into dunes in post-glacial times (Fung 1999). Ground moraines are extensive throughout the area as well, often interspersed with small lakes and ponds in lower-lying areas (Acton et al. 1998).

Three of the five sampling stations at Wollaston Lake (Stations 1, 4, and 5) occur on the Wollaston Lake Plain landscape area, in the Churchill River Upland within the Boreal Shield (Appendix A-4, Table 1). This area is underlain by Precambrian bedrock and covered by coarse glacial till in many areas, as well as occasional drumlins and prominent eskers. It has a hummocky topography, largely controlled by the ice-scoured bedrock plain (Fung 1999). Stations 2 and 3 are located on the Nueltin Lake Plain landscape area, in the Selwyn Lake Upland ecoregion within the Taiga Shield ecozone. Once again, the geology is composed of underlying bedrock overlain by a blanket of sandy and bouldery glacial till. Extensive peatlands, in the form of bogs and fens, are also present within the Nueltin Lake Plain (Acton et al. 1998).

The Uranium City Upland landscape area consists of crystalline basement rocks, sparsely covered by glacial deposits (Acton et al. 1998). It is dominated by rugged topography with steep bedrock ridges, interspersed or overlain by a thin veneer of glacial till deposits (Acton et al. 1998). All five of the Uranium City sampling stations occur in this landscape area. In addition, the Black Lake and Camsell Portage Stations 1, 2, and 3 (respectively for both) also lie within this landscape area.

2.0 SURFICIAL GEOLOGY

An investigation into surficial geology (also referred to as quaternary geology) was undertaken to provide background information for each of the six community soil sampling sites. It is imperative to have an understanding of the geologic composition of

the underlying deposits, as this will determine the parent material and ultimately affect the soil formation process. The Geological Atlas of Saskatchewan was reviewed for this information; it provides digital maps (at a scale of 1:250,000) of the surficial geology for the province of Saskatchewan (based on previous work by Schreiner [1984a, 1984b, 1984c, 1984d]).

2.1 Stony Rapids

The Geological Atlas of Saskatchewan identifies two main types of surficial geology for the Stony Rapids soil sampling area (Appendix A-4, Table 1). Stations 1 and 2 overly an area classified as a morainal plain (GS 2012). Morainal sediments (also known as glacial till) consist of non-stratified mixtures of sand, silt, and clay that were transported and deposited by a glacier (SCWG 1998). Stations 3, 4, and 5 consist of a complex predominantly (i.e. at least 60% or more) comprised of glaciofluvial outwash deposits, with lesser areas covered by eroded, drumlinoid moraine (up to 40%) and organic plains (<15%) (GS 2012). Glaciofluvial outwash consists of extensive accumulations of gravel, sand, and silt transported and deposited by meltwater streams (GS 2012). Drumlin features, characteristic of drumlinoid moraine, are elongated hills formed by glacial ice acting on unconsolidated glacial till. In this case, the drumlinoid features exhibit some erosion in the form of channelling by former meltwater streams, resulting in a braided or parallel pattern (GS 2012). Smaller areas with organic deposits are denoted by the presence of bogs throughout the area (GS 2012).

The dominant parent material in the study area is largely morainal, with additional areas exhibiting glaciofluvial or glaciolacustrine parent material. Expected soils for the Fond du Lac Lowland landscape area with these types of parent materials would include Brunisolic soils in the well-drained slope positions, with Gleysols, Organics, and local Cryosols in the swales between drumlins (Acton et al. 1998).

2.2 Black Lake

Located approximately 25 km east of Stony Rapids, the Black Lake soil sampling stations exhibited a different surficial geology than the Stony Rapids sampling stations. Two main types of surficial geology are noted to occur (Appendix A-4, Table 1). Stations 1, 2, and 3 consist of a complex predominantly (≥60%) comprised of ridged bedrock, with lesser areas covered by thin moraine (≤40%) and ridged glaciofluvial deposits (<15%)

(GS 2012). The bedrock outcrops consist of Precambrian crystalline rocks found at the surface, and, in this case, stratified with a series of parallel ridges (Fung 1999; GS 2012). Thin morainal deposits are generally less than 3 metres thick and are composed of unsorted till (initially deposited by glacial ice). Ridged glaciofluvial deposits generally consist of more stratified gravels, sands, and silts (deposited by glacial meltwater), often in the form of narrow, linear ridges known as eskers (GS 2012).

Stations 4 and 5 in the Black Lake sampling area are underlain by glaciolacustrine deposits (>60% of the area), with lesser areas (<15%) exhibiting a morainal veneer (GS 2012). Glaciolacustrine sediments include either stratified fine sand, silt, and clay deposited on a glacial lake bed; or coarser sands that have accumulated at the margins of waterbodies through the processes of wave action (SCWG 1998). Historic data on investigative sites in the area near Stations 4 and 5 indicate a surficial geology of ridged glaciofluvial deposits and glaciolacustrine plain (Schreiner 1984b).

The dominant parent material in the study area varies widely by geographical site. However, most areas have thin morainal deposits as part of a complex, with additional areas exhibiting either bedrock, glaciofluvial or glaciolacustrine parent material. As noted for the nearby Stony Rapids area, expected soil development would include Brunisols over sandy glacial till areas, with Gleysols, Organics, and local Cryosols in the numerous small, low-lying areas (Acton et al. 1998).

2.3 Fond du Lac

The five soil sampling stations at Fond du Lac were all located along the south shores of Lake Athabasca, approximately 15 km west of the community of Fond du Lac. All five stations were in close proximity to each other (<600 m) and all exhibited the same surficial geology (Appendix B, Table 11); eolian dunes (at least 60% of the area) with up to 40% of the area consisting of glaciolacustrine plain developed over a moraine plain (GS 2012). Eolian deposits are composed of fine and medium-grained sand and silt that have been transported and deposited by wind action, often resulting in rolling topography such as in the form of dunes (SCWG 1998; GS 2012). An historic site located approximately 450 m east of the Fond du Lac soil sampling stations was identified as having a surficial geology of sandy, ridged glaciolacustrine sediments (in the form of beach berms, strandlines, and/or wave-cut benches) developed over a sandy, moraine plain (Schreiner 1984a; GS 2012).

Several types of parent material occur in this area. Much of the area has evidence of eolian deposits overlying glacial sediments, generally either morainal or fluvial. However, as noted in Schreiner (1984a), certain areas near the Fond du Lac sampling sites also exhibited glaciolacustrine parent material (displayed as ridged strandlines/beach berms). The pre-cursor to Lake Athabasca, pro-glacial Lake McConnell, inundated the landscape following the retreat of the last glacier, and in its retreat, left shoreline features such as berms and point bars (Acton et al. 1998). Expected soils for the Fond du Lac Lowland landscape area with these types of parent materials would include Brunisolic soils in the rapidly-drained, sandy deposits, with Gleysols and Organics in the depressional areas (Acton et al. 1998).

2.4 Wollaston Lake/Hatchet Lake

The surficial geology was consistent for all five Wollaston Lake/Hatchet Lake soil sampling locations; consisting of a complex predominantly (≥60%) comprised of ridged bedrock, with lesser areas covered by organic plains (≤40%) and thin moraine (<15%) (GS 2012) (Appendix A-4, Table 1). The bedrock is corrugated with parallel ridges, created by the alteration of igneous and metamorphic rocks with older granite rocks (Acton et al. 1998; GS 2012). Bogs indicate areas of organic origin, while morainal deposits less than three metres thick may also be noted in areas (GS 2012).

Dominant parent materials include rock, glacial till, and organic. Brunisolic soils typically develop on the sandy glacial till and gravelly glaciofluvial eskers, with Organic soils associated with the peat deposits scattered throughout the area (Acton et al. 1998).

2.5 Uranium City

The five soil sampling locations in the Uranium City area exhibited three different types of surficial geology, according to the Geological Atlas of Saskatchewan. Stations 1 and 2 consist of a complex predominantly (≥60%) composed of ridged bedrock, with lesser areas covered by thin moraine (≤40%) and thin glaciofluvial deposits (<15%) (GS 2012) (Appendix B, Table 11).

Stations 3 and 4 in the Uranium City sampling area overly an area characterized by glaciofluvial outwash deposits, however they are also near the boundary of an area dominated by bedrock and thin moraine. Historic data on investigative sites in the area near Stations 3 and 4 indicate a surficial geology of glaciolacustrine plain over bedrock

(Schreiner 1984c). The mapped surficial geology at Station 5 is thin glaciofluvial veneer (GS 2012).

Parent material that would be expected to occur on these types of sediments would include bedrock, morainal, and/or glaciofluvial. Lacustrine sediments may also occur along the vast expanse of shoreline for Lake Athabasca. Brunisolic soils dominate the well-drained sandy sediments, with Organics and Cryosols occupying the poorly drained areas (Acton et al. 1998).

2.6 Camsell Portage

The surficial geology of the Camsell Portage soil sampling area was identified to be a glaciofluvial outwash plain, with certain areas exhibiting ridges due to an eskerine complex (Appendix A-4, Table 1) (GS 2012). The dominant parent material in the area immediately surrounding the five sampling stations is glaciofluvial; however, some stations were situated near the boundary of an area dominated by glaciolacustrine sediments, likely a result of the proximity to the Lake Athabasca shoreline and the consequent wave action processes. Once again, Brunisolic soils are expected amongst the sandy/bouldery deposits which lie scattered throughout numerous bedrock outcrops (Acton et al. 1998).

APPENDIX A-4

SOILS REPORT DETAILED TABLES

APPENDIX A-4: LIST OF SOILS REPORT DETAILED TABLES

APPENDIX A-4, TABLE 1

Ecological description and surficial geology information for the community program soil sample stations, September/October 2011.

Community	Station	Mapped Surficial Geology[1]	Ecozone[2]	Ecoregion[2]	Landscape Area[2]
Stony Rapids	1	Mp	Boreal Shield	Athabasca Plain	Fond du Lac Lowland
	2				
	3	GFp/Mde/Op			
	4				
	5				
Black Lake	1	Rr/Mv/GFr	Taiga Shield	Tazin Lake Upland	Uranium City Upland
	2				
	3				
	4	GLp//Mv	Boreal Shield	Athabasca Plain	Fond du Lac Lowland
	5				
Fond du Lac	1	Er/GLp|Mp	Boreal Shield	Athabasca Plain	Athabasca Dunes
	2				
	3				
	4				
	5				
Wollaston Lake	1	Rr/Op/Mv	Boreal Shield	Churchill River Upland	Wollaston Lake Plain
	2		Taiga Shield	Selwyn Lake Upland	Nueltin Lake Plain
	3				
	4		Boreal Shield	Churchill River Upland	Wollaston Lake Plain
	5				
Uranium City	1	Rr/Mv/GFv	Taiga Shield	Tazin Lake Upland	Uranium City Upland
	2				
	3	GFp			
	4				
	5	GFv			
Camsell Portage	1	GFp; GFpr	Taiga Shield	Tazin Lake Upland	Uranium City Upland
	2				
	3				
	4		Boreal Shield	Athabasca Plain	Athabasca Dunes
	5				

[1]Surficial geology (1:250,000 scale) as identified by the Geological Atlas of Saskatchewan (GS 2012). Mapped surficial geology legend codes are described in general below; additional explanation regarding the specific proportion (%) of geology complexes (i.e. Rr/Mv/GFv) is provided in (GS 2012) and described in the report text document:
Er = Eolian ridged (dunes); GFp = Glaciofluvial outwash plain; GFpr = Glaciofluvial outwash plain with ridges (eskerine complex); GFr = Glaciofluvial (eskerine complex); GFv = Glaciofluvial veneer; GLp = Glaciolacustrine plain; Mde = Morainal drumlinoid (eroded); Mp = Morainal plain; Mv = Morainal veneer; Op = Organic plain; Rr = Bedrock (ridged).

APPENDIX A-4, TABLE 2

Detailed community program soil chemistry data, fall 2011.

Analyte[1]	Black Lake					Uranium City					Camsell Portage				Fond du Lac					Stony Rapids					Wollaston Lake/Hatchet Lake				
	1	2	3	4	5	1	2	3	4	5	1	2	3	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals																													
Aluminum	10800	2050	8900	3900	4040	10500	10700	14200	13300	8400	16400	8100	7100	2630	1230	3770	1970	510	600	8900	8800	9300	9800	7600	11700	6900	8300	7100	7600
Barium	28	82	22	86	23	30	33	83	52	43	55	49	48	68	11	19	14	6.3	12	31	23	18	24	39	30	26	24	21	21
Boron	1	1	1	1	1	2	2	3	3	3	6	3	1	3	1	3	1	1	1	1	1	1	1	1	1	1	1	1	1
Cadmium	0.1	0.2	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Chromium	15	8.8	12	6.7	6.3	12	13	17	17	8.4	20	7.3	11	5.7	1.4	6.8	2.2	0.7	0.5	17	15	9.3	12	7.1	14	13	13	7.2	12
Copper	3.6	3.4	3.8	2.6	1.2	2	3.5	2.4	1.8	1.3	4.5	1.3	1.1	1.3	0.5	0.8	0.5	0.5	0.5	2.1	2.7	1.3	1.3	3.3	1.4	1.4	1.3	1.7	1.2
Iron	11600	2380	10400	3730	3730	11600	11700	15800	14300	8700	19800	7400	7800	5600	570	3850	1730	380	370	10400	7000	4570	9100	4400	12500	11200	11500	6300	8300
Lead	4.8	4.7	3.3	3.3	2.1	3.2	3.5	5.6	4.1	2.9	4.5	1.7	1.9	6	0.9	1.5	1.2	0.8	1.1	3.8	2.6	3.1	3.4	2.7	4	3	3.4	2.1	2.1
Manganese	120	210	120	80	55	110	120	190	180	92	200	54	110	26	23	45	19	4.9	28	100	50	77	110	63	100	110	91	79	100
Molybdenum	0.2	0.3	0.1	0.1	0.1	0.2	0.3	0.2	0.3	0.3	0.7	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.2	0.2	0.1	0.2	0.2	0.2	0.1	0.5	0.1	0.2
Nickel	5.4	2.5	5.6	1.6	2.8	5.3	5.8	7.9	6.8	2.9	9.1	3.3	4.8	1.9	0.9	2.7	1	0.4	0.3	6.1	5.6	3.1	3.3	3.7	4.6	4.2	4.2	3.1	6
Selenium	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Silver	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Thallium	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Tin	0.5	0.2	0.3	0.4	0.2	0.5	0.4	0.5	0.5	0.4	0.7	1.5	0.3	0.2	0.1	0.2	0.1	0.1	0.1	0.5	0.3	0.4	0.5	0.3	0.8	0.6	0.8	0.4	0.5
Titanium	840	200	590	590	230	600	700	700	690	620	800	360	330	110	46	320	64	17	26	790	370	590	810	430	790	610	700	400	540
Uranium	0.6	0.3	0.5	0.5	0.4	0.5	0.7	0.7	1.2	0.4	0.9	0.5	0.6	0.5	0.3	0.5	0.6	0.2	0.3	1	0.9	0.6	0.7	0.4	1.3	1.4	1.5	0.7	0.7
Zinc	9.7	17	11	15	6	13	15	14	14	9	24	8.2	13	3.5	2.2	6.3	2.7	1.9	2.5	8.2	6.4	6.5	8.1	7.4	9.8	8.1	12	7	7
Physical Properties																													
Moisture (%)	12.96	30.46	5.81	29.98	5.97	5.33	6.4	3.44	8.39	7.93	4.73	5.85	3.82	5.67	6.23	6.75	2.95	1.96	1.92	8.36	7.26	16.08	19.28	6.65	10.07	9.93	7.67	6.44	9.51
pH (units)	4.08	3.46	4.91	3.36	4.48	4.96	4.96	4.98	4.83	4.18	4.97	3.86	4.8	4.06	4.1	4.45	4.53	4.49	4.15	4.61	4.4	4.84	4.38	3.82	4.7	4.14	4.23	5.02	5.2
Radionuclides																													
Lead-210 (Bq/g)	0.04	0.2	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.04	0.05	0.04	0.04	0.04	0.05	0.04	0.04
Polonium-210 (Bq/g)	0.02	0.12	0.02	0.09	0.02	0.01	0.05	0.03	0.02	0.03	0.02	0.02	0.01	0.02	0.01	0.01	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.03	0.03	0.02	0.01
Radium-226 (Bq/g)	0.03	0.01	0.02	0.04	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.06	0.03	0.01	0.01	0.02	0.01	0.02	0.04	0.02	0.01	0.01	0.03	0.01	0.07	0.07	0.06	0.02
Thorium-230 (Bq/g)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.03
Trace Elements																													
Antimony	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Arsenic	1.3	0.9	1.2	0.6	1.1	1.1	0.6	1.6	1	1.4	0.7	0.8	0.9	3.2	0.7	0.9	0.6	0.4	0.4	1.8	2	1	1.1	0.9	0.9	1	0.8	0.6	0.6
Beryllium	0.3	0.1	0.2	0.1	0.2	0.3	0.4	0.5	0.4	0.3	0.5	0.3	0.2	0.3	0.1	0.1	0.1	0.1	0.1	0.3	0.2	0.2	0.3	0.3	0.4	0.3	0.3	0.3	0.3
Cobalt	2.1	0.3	2.2	0.4	1.1	2.6	2.8	3.5	2.6	1.4	6.3	1.5	1.7	0.6	0.2	0.9	0.2	0.2	0.2	2.2	1.5	1.1	1.4	1.2	1.9	1.7	1.8	1.3	1.5
Strontium	36	33	29	24	30	22	28	23	21	23	23	22	23	240	60	55	35	41	37	51	65	36	27	27	7.3	6.7	4.6	5.4	6.2
Vanadium	20	5.9	17	8.6	6.9	19	18	25	23	16	31	11	11	5.5	1.1	7.1	2.3	0.5	0.6	19	12	11	16	9.1	19	17	18	10	13

[1]All concentrations are presented on a µg/g dry weight basis, unless specified otherwise.

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Metals							
Aluminum	Average	5938	11420	8558	1616	8880	8320
	S.D.	3718	2332	5744	1339	817	1965
	Minimum	2050	8400	2630	510	7600	6900
	Maximum	10800	14200	16400	3770	9800	11700
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Barium	Average	48	48	55	12	27	24
	S.D.	33	21	9	5	8	4
	Minimum	22	30	48	6.3	18	21
	Maximum	86	83	68	19	39	30
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Boron	Average	1	3	3	1	1	1
	S.D.	0[2]	1	2	1	0	0
	Minimum	1	2	1	1	1	1
	Maximum	1	3	6	3	1	1
	N	5	5	4	5	5	5
	<MDL	3	0	0	3	5	5
Cadmium	Average	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0.1	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.2	0.1	0.1	0.1	0.1	0.1
	N	5	5	4	5	5	5
	<MDL	1	3	3	3	4	4
Chromium	Average	9.8	13.5	11.0	2.3	12.1	11.8
	S.D.	3.7	3.6	6.4	2.6	4.0	2.7
	Minimum	6.3	8.4	5.7	0.5	7.1	7.2
	Maximum	15.0	17.0	20.0	6.8	17.0	14.0
	N	5	5	4	5	5	5
	<MDL	0	0	0	1	0	0

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Copper	Average	2.9	2.2	2.1	0.6	2.1	1.4
	S.D.	1.1	0.8	1.6	0.1	0.9	0.2
	Minimum	1.2	1.3	1.1	0.5	1.3	1.2
	Maximum	3.8	3.5	4.5	0.8	3.3	1.7
	N	5	5	4	5	5	5
	<MDL	0	0	0	4	0	0
Iron	Average	6368	12420	10150	1380	7094	9960
	S.D.	4285	2738	6504	1492	2674	2574
	Minimum	2380	8700	5600	370	4400	6300
	Maximum	11600	15800	19800	3850	10400	12500
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Lead	Average	3.6	3.9	3.5	1.1	3.1	2.9
	S.D.	1.1	1.1	2.1	0.3	0.5	0.8
	Minimum	2.1	2.9	1.7	0.8	2.6	2.1
	Maximum	4.8	5.6	6.0	1.5	3.8	4.0
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Manganese	Average	117	138	98	24	80	96
	S.D.	59	44	77	15	25	12
	Minimum	55	92	26	4.9	50	79
	Maximum	210	190	200	45	110	110
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Molybdenum	Average	0.2	0.3	0.3	0.1	0.2	0.2
	S.D.	0.1	0.1	0.3	0.0	0.0	0.2
	Minimum	0.1	0.2	0.1	0.1	0.1	0.1
	Maximum	0.3	0.3	0.7	0.1	0.2	0.5
	N	5	5	4	5	5	5
	<MDL	1	0	0	4	0	2

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Nickel	Average	3.6	5.7	4.8	1.1	4.4	4.4
	S.D.	1.8	1.9	3.1	1.0	1.4	1.0
	Minimum	1.6	2.9	1.9	0.3	3.1	3.1
	Maximum	5.6	7.9	9.1	2.7	6.1	6
	N	5	5	4	5	5	5
	<MDL						
Selenium	Average	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	4	5	5	5
	<MDL	4	5	4	5	3	4
Silver	Average	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	4	5	5	5
	<MDL	5	5	4	5	5	5
Thallium	Average	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2
	N	5	5	4	5	5	5
	<MDL	5	5	4	5	5	5
Tin	Average	0.3	0.5	0.7	0.1	0.4	0.6
	S.D.	0.1	0.1	0.6	0.0	0.1	0.2
	Minimum	0.2	0.4	0.2	0.1	0.3	0.4
	Maximum	0.5	0.5	1.5	0.2	0.5	0.8
	N	5	5	4	5	5	5
	<MDL	0	0	0	4	0	0

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Titanium	Average	490	662	400	95	598	608
	S.D.	271	48	289	127	201	150
	Minimum	200	600	110	17	370	400
	Maximum	840	700	800	320	810	790
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Uranium	Average	0.5	0.7	0.6	0.4	0.7	1.1
	S.D.	0.1	0.3	0.2	0.2	0.2	0.4
	Minimum	0.3	0.4	0.5	0.2	0.4	0.7
	Maximum	0.6	1.2	0.9	0.6	1	1.5
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Zinc	Average	11.7	13.0	12.2	3.1	7.3	8.8
	S.D.	4.4	2.3	8.8	1.8	0.9	2.1
	Minimum	6.0	9.0	3.5	1.9	6.4	7.0
	Maximum	17.0	15.0	24.0	6.3	8.2	12.0
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Physical Properties							
Moisture (%)	Average	17.04	6.30	5.02	3.96	11.53	8.72
	S.D.	12.38	2.01	0.94	2.35	5.76	1.60
	Minimum	5.81	3.44	3.82	1.92	6.65	6.44
	Maximum	30.46	8.39	5.85	6.75	19.28	10.07
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
pH	Average	4.06	4.78	4.42	4.34	4.41	4.66
	S.D.	0.66	0.34	0.54	0.20	0.38	0.47
	Minimum	3.36	4.18	3.86	4.1	3.82	4.14
	Maximum	4.91	4.98	4.97	4.53	4.84	5.2
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Radionuclides							
Lead-210	Average	0.07	0.04	0.04	0.04	0.04	0.04
	S.D.	0.07	0.00	0.00	0.00	0.00	0.00
	Minimum	0.04	0.04	0.04	0.04	0.04	0.04
	Maximum	0.20	0.04	0.04	0.04	0.05	0.05
	N	5	5	4	5	5	5
	<MDL	4	5	4	4	4	4
Polonium-210	Average	0.05	0.03	0.02	0.01	0.02	0.02
	S.D.	0.05	0.01	0.01	0.01	0.00	0.01
	Minimum	0.02	0.01	0.01	0.01	0.01	0.01
	Maximum	0.12	0.05	0.02	0.02	0.02	0.03
	N	5	5	4	5	5	5
	<MDL	0	0	1	1	0	0
Radium-226	Average	0.02	0.02	0.03	0.01	0.02	0.05
	S.D.	0.01	0.00	0.02	0.01	0.01	0.03
	Minimum	0.01	0.02	0.02	0.01	0.01	0.01
	Maximum	0.04	0.03	0.06	0.02	0.04	0.07
	N	5	5	4	5	5	5
	<MDL	0	4	2	1	1	2
Thorium-230	Average	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0.01	0	0	0.004	0.004
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.04	0.02	0.02	0.03	0.03
	N	5	5	4	5	5	5
	<MDL	4	3	2	5	2	3

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Trace Elements							
Antimony	Average	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2
	N	5	5	4	5	5	5
	<MDL	5	5	4	5	5	5
Arsenic	Average	1.0	1.1	1.4	0.6	1.4	0.8
	S.D.	0.3	0.4	1.2	0.2	0.5	0.2
	Minimum	0.6	0.6	0.7	0.4	0.9	0.6
	Maximum	1.3	1.6	3.2	0.9	2.0	1.0
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0
Beryllium	Average	0.2	0.4	0.3	0.1	0.3	0.3
	S.D.	0.1	0.1	0.1	0	0.1	0.04
	Minimum	0.1	0.3	0.2	0.1	0.2	0.3
	Maximum	0.3	0.5	0.5	0.1	0.3	0.4
	N	5	5	4	5	5	5
	<MDL	1	0	0	4	0	0
Cobalt	Average	1.2	2.6	2.5	0.3	1.5	1.6
	S.D.	0.9	0.8	2.6	0.3	0.4	0.2
	Minimum	0.3	1.4	0.6	0.2	1.1	1.3
	Maximum	2.2	3.5	6.3	0.9	2.2	1.9
	N	5	5	4	5	5	5
	<MDL	0	0	0	4	0	0
Strontium	Average	30.4	23.4	77.0	45.6	41.2	6.0
	S.D.	4.5	2.7	108.7	11.2	16.5	1.1
	Minimum	24.0	21.0	22.0	35.0	27.0	4.6
	Maximum	36.0	28.0	240.0	60.0	65.0	7.3
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0

APPENDIX A-4, TABLE 3

Community soil chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake	Uranium City	Camsell Portage	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake
Vanadium	Average	11.7	20.2	14.6	2.3	13.4	15.4
	S.D.	6.4	3.7	11.2	2.8	4.0	3.8
	Minimum	5.9	16.0	5.5	0.5	9.1	10.0
	Maximum	20.0	25.0	31.0	7.1	19.0	19.0
	N	5	5	4	5	5	5
	<MDL	0	0	0	0	0	0

[1]All concentrations are presented on a µg/g dry weight basis, unless specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance".

S.D.=Standard deviation.

<MDL = inferior to the laboratory detection limit.

All statistics computed using concentration = 1* MDL for values <MDL.

APPENDIX B

RAW SRC RESULTS AND QA/QC REPORTS

SRC Group # 2011-10033

SRC ANALYTICAL

Nov 02, 2011

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-11-2011 Client P.O.: 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

SRC ANALYTICAL

Nov 02, 2011

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-11-2011 Client P.O.: 1489

34913 09/22/2011 KELLY BAY *WATER*
34914 09/24/2011 GREEN BAY *WATER*
34915 09/26/2011 WOLLASTON LAKE/COCHRANE RIVER *WATER*

Analyte	Units	34913	34914	34915
Inorganic Chemistry				
Bicarbonate	mg/L	7±2	6±2	20±4
Carbonate	mg/L	<1	<1	<1
Chloride	mg/L	0.6±0.1	1.1±0.1	0.3±0.1
Hydroxide	mg/L	<1	<1	<1
P. alkalinity	mg/L	<1	<1	<1
pH	pH units	6.97±0.1	6.87±0.1	7.12±0.1
Specific conductivity	uS/cm	23±3	19±2	35±3
Sum of ions	mg/L	13±3	11±3	31±5
Total alkalinity	mg/L	6±1	5±1	16±2
Total hardness	mg/L	7±2	5±2	13±3
Ammonia as nitrogen	mg/L	<0.01	<0.01	<0.01
Nitrate	mg/L	<0.04	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.25±0.1	0.20±0.1	0.26±0.1
Total nitrogen	mg/L	0.25	0.20	0.26
Organic carbon	mg/L	1.8±0.3	0.7±0.2	2.4±0.3
Fluoride	mg/L	0.03±0.01	0.03±0.01	0.06±0.02
Total dissolved solids	mg/L	22±4	13±3	27±5
Total suspended solids	mg/L	<1	<1	1±1
Turbidity	NTU	0.3±0.1	0.3±0.1	0.5±0.1
ICP				
Calcium	mg/L	1.9±0.2	1.6±0.2	3.5±0.4
Magnesium	mg/L	0.5±0.1	0.3±0.1	1.0±0.1
Potassium	mg/L	0.5±0.2	0.4±0.2	0.6±0.2

SRC ANALYTICAL

Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34913 09/22/2011 KELLY BAY *WATER*
34914 09/24/2011 GREEN BAY *WATER*
34915 09/26/2011 WOLLASTON LAKE/COCHRANE RIVER *WATER*

Analyte	Units	34913	34914	34915
ICP				
Sodium	mg/L	1.6±0.2	1.3±0.1	1.4±0.2
Sulfate	mg/L	1.1±0.3	0.7±0.2	4.6±0.8
Phosphorus	mg/L	<0.01	<0.01	<0.01
Aluminum	mg/L	0.0009±0.0007	<0.0005	0.0052±0.002
Antimony	mg/L	<0.0002	<0.0002	<0.0002
Arsenic	ug/L	0.1±0.1	<0.1	0.1±0.1
Barium	mg/L	0.0027±0.001	0.0022±0.001	0.0041±0.001
Beryllium	mg/L	<0.0001	<0.0001	<0.0001
Boron	mg/L	<0.01	<0.01	<0.01
Cadmium	mg/L	0.00001±0.00001	<0.00001	<0.00001
Chromium	mg/L	<0.0005	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001	<0.0001
Copper	mg/L	<0.0002	<0.0002	<0.0002
Iron	mg/L	0.012±0.002	0.0033±0.001	0.025±0.003
Lead	mg/L	<0.0001	<0.0001	<0.0001
Manganese	mg/L	0.011±0.0009	0.0012±0.0006	0.0055±0.0008
Mercury	ug/L	<0.01	<0.01	<0.01
Molybdenum	mg/L	0.0016±0.0004	<0.0001	0.0013±0.0004
Nickel	mg/L	0.0001±0.0001	<0.0001	<0.0001
Selenium	mg/L	<0.0001	<0.0001	<0.0001
Silver	mg/L	<0.00005	<0.00005	<0.00005
Strontium	mg/L	0.015±0.003	0.017±0.003	0.012±0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001	<0.0001
Titanium	mg/L	<0.0002	<0.0002	<0.0002
Uranium	ug/L	<0.1	<0.1	<0.1
Vanadium	mg/L	<0.0001	<0.0001	<0.0001
Zinc	mg/L	0.0007±0.0006	0.017±0.005	0.0078±0.003
Radio Chemistry				
Lead-210	Bq/L	<0.02	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005	<0.005
Thorium-230	Bq/L	<0.01	<0.01	<0.01

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

SRC ANALYTICAL

Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34916 09/28/2011 ARMATAGE BAY *WATER*
34917 09/30/2011 FOND DU LAC RIVER/HATCHET LAKE *WATER*
34918 10/02/2011 CRACKINGSTONE BAY *WATER*

Analyte	Units	34916	34917	34918
Inorganic Chemistry				
Bicarbonate	mg/L	12±3	21±4	30±5
Carbonate	mg/L	<1	<1	<1
Chloride	mg/L	0.4±0.1	0.2±0.1	3.2±0.3
Hydroxide	mg/L	<1	<1	<1
P. alkalinity	mg/L	<1	<1	<1
pH	pH units	6.96±0.1	7.06±0.1	7.46±0.1
Specific conductivity	uS/cm	21±2	32±3	68±5
Sum of ions	mg/L	17±4	29±5	50±6
Total alkalinity	mg/L	10±1	17±2	25±2
Total hardness	mg/L	7±2	12±3	27±5
Ammonia as nitrogen	mg/L	<0.01	<0.01	<0.01
Nitrate	mg/L	<0.04	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.36±0.2	0.34±0.2	0.32±0.2
Total nitrogen	mg/L	0.36	0.34	0.32
Organic carbon	mg/L	1.8±0.3	3.6±0.3	2.8±0.3
Fluoride	mg/L	0.03±0.01	0.07±0.02	0.06±0.02
Total dissolved solids	mg/L	19±4	30±5	44±6
Total suspended solids	mg/L	1±1	2±1	<1
Turbidity	NTU	0.4±0.1	0.7±0.1	0.5±0.1
ICP				
Calcium	mg/L	1.8±0.2	3.1±0.4	7.1±0.7
Magnesium	mg/L	0.6±0.1	1.1±0.1	2.2±0.2
Potassium	mg/L	0.4±0.2	0.6±0.2	0.9±0.3
Sodium	mg/L	1.2±0.1	1.3±0.1	2.7±0.2
Sulfate	mg/L	0.9±0.2	2.1±0.4	3.8±0.7
Phosphorus	mg/L	<0.01	<0.01	<0.01
Aluminum	mg/L	0.0024±0.001	0.015±0.003	0.012±0.002
Antimony	mg/L	<0.0002	<0.0002	<0.0002
Arsenic	ug/L	0.1±0.1	<0.1	0.2±0.1
Barium	mg/L	0.0031±0.001	0.0040±0.001	0.011±0.002
Beryllium	mg/L	<0.0001	<0.0001	<0.0001
Boron	mg/L	<0.01	<0.01	0.01±0.01
Cadmium	mg/L	<0.00001	0.00001±0.00001	<0.00001
Chromium	mg/L	<0.0005	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001	<0.0001
Copper	mg/L	<0.0002	0.0002±0.0002	0.0002±0.0002

SRC ANALYTICAL

Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34916 09/28/2011 ARMATAGE BAY *WATER*
34917 09/30/2011 FOND DU LAC RIVER/HATCHET LAKE *WATER*
34918 10/02/2011 CRACKINGSTONE BAY *WATER*

Analyte	Units	34916	34917	34918
ICP				
Iron	mg/L	0.025±0.003	0.083±0.006	0.020±0.003
Lead	mg/L	<0.0001	<0.0001	<0.0001
Manganese	mg/L	0.0094±0.0008	0.016±0.0009	0.0012±0.0006
Mercury	ug/L	<0.01	<0.01	<0.01
Molybdenum	mg/L	<0.0001	0.0004±0.0002	0.0002±0.0001
Nickel	mg/L	<0.0001	<0.0001	0.0002±0.0001
Selenium	mg/L	<0.0001	<0.0001	<0.0001
Silver	mg/L	<0.00005	<0.00005	<0.00005
Strontium	mg/L	0.015±0.003	0.012±0.002	0.054±0.005
Thallium	mg/L	<0.0002	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001	<0.0001
Titanium	mg/L	<0.0002	0.0006±0.0003	0.0005±0.0002
Uranium	ug/L	<0.1	<0.1	0.5±0.2
Vanadium	mg/L	<0.0001	<0.0001	0.0002±0.0001
Zinc	mg/L	0.0010±0.0008	0.0033±0.002	<0.0005
Radio Chemistry				
Lead-210	Bq/L	<0.02	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005	<0.005
Thorium-230	Bq/L	<0.01	<0.01	<0.01

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

SRC ANALYTICAL

Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34919 10/04/2011 ELLIS BAY *WATER*
34920 10/01/2011 FIELD BLANK *WATER*
34921 10/01/2011 TRIP BLANK *WATER*

Analyte	Units	34919	34920	34921
Inorganic Chemistry				
Bicarbonate	mg/L	34±5	<1	<1
Carbonate	mg/L	<1	<1	<1
Chloride	mg/L	3.0±0.2	<0.1	<0.1
Hydroxide	mg/L	<1	<1	<1
P. alkalinity	mg/L	<1	<1	<1
pH	pH units	7.44±0.1	5.38±0.1	5.36±0.1
Specific conductivity	uS/cm	66±5	<1	<1
Sum of ions	mg/L	53±6	<1	<1
Total alkalinity	mg/L	28±2	<1	<1
Total hardness	mg/L	26±5	<1	<1
Ammonia as nitrogen	mg/L	<0.01	<0.01	<0.01
Nitrate	mg/L	<0.04	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.20±0.1	0.06±0.05	0.05±0.05
Total nitrogen	mg/L	0.20	0.060	0.050
Organic carbon	mg/L	2.8±0.3	<0.2	<0.2
Fluoride	mg/L	0.06±0.02	0.01±0.01	<0.01
Total dissolved solids	mg/L	45±6	<1	2±1
Total suspended solids	mg/L	<1	<1	<1
Turbidity	NTU	0.4±0.1	<0.1	<0.1
ICP				
Calcium	mg/L	7.0±0.7	<0.1	<0.1
Magnesium	mg/L	2.0±0.2	<0.1	<0.1
Potassium	mg/L	0.9±0.3	<0.1	<0.1
Sodium	mg/L	2.5±0.2	<0.1	<0.1
Sulfate	mg/L	3.7±0.6	<0.2	<0.2
Phosphorus	mg/L	<0.01	<0.01	<0.01
Aluminum	mg/L	0.0023±0.001	<0.0005	<0.0005
Antimony	mg/L	<0.0002	<0.0002	<0.0002
Arsenic	ug/L	0.1±0.1	<0.1	<0.1
Barium	mg/L	0.010±0.002	<0.0005	<0.0005
Beryllium	mg/L	<0.0001	<0.0001	<0.0001
Boron	mg/L	<0.01	<0.01	<0.01
Cadmium	mg/L	0.00002±0.00001	0.00001±0.00001	0.00002±0.00001
Chromium	mg/L	<0.0005	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001	<0.0001
Copper	mg/L	<0.0002	<0.0002	<0.0002

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CanNorth, Canada North Environmental Services Limited

34919 10/04/2011 ELLIS BAY *WATER*
34920 10/01/2011 FIELD BLANK *WATER*
34921 10/01/2011 TRIP BLANK *WATER*

Analyte	Units	34919	34920	34921
ICP				
Iron	mg/L	0.0069±0.002	<0.0005	<0.0005
Lead	mg/L	<0.0001	<0.0001	0.0001±0.0001
Manganese	mg/L	0.0012±0.0006	<0.0005	<0.0005
Mercury	ug/L	<0.01	<0.01	<0.01
Molybdenum	mg/L	0.0002±0.0001	<0.0001	<0.0001
Nickel	mg/L	0.0002±0.0001	<0.0001	<0.0001
Selenium	mg/L	<0.0001	<0.0001	<0.0001
Silver	mg/L	<0.00005	<0.00005	<0.00005
Strontium	mg/L	0.051±0.004	<0.0005	<0.0005
Thallium	mg/L	<0.0002	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001	<0.0001
Titanium	mg/L	<0.0002	<0.0002	<0.0002
Uranium	ug/L	<0.1	<0.1	<0.1
Vanadium	mg/L	<0.0001	<0.0001	<0.0001
Zinc	mg/L	<0.0005	<0.0005	<0.0005
Radio Chemistry				
Lead-210	Bq/L	<0.02	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005	<0.005
Thorium-230	Bq/L	<0.01	<0.01	<0.01

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

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Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34922 09/30/2011 DUPLICATE 1 *WATER*
34923 09/25/2011 STONY RAPIDS *WATER*
34924 09/25/2011 BLACK LAKE *WATER*

Analyte	Units	34922	34923	34924
Inorganic Chemistry				
Bicarbonate	mg/L	20±4	21±4	20±4
Carbonate	mg/L	<1	<1	<1
Chloride	mg/L	0.2±0.1	3.2±0.3	3.6±0.3
Hydroxide	mg/L	<1	<1	<1
P. alkalinity	mg/L	<1	<1	<1
pH	pH units	7.11±0.1	7.30±0.1	7.12±0.1
Specific conductivity	uS/cm	32±3	39±4	40±4
Sum of ions	mg/L	29±5	33±5	32±5
Total alkalinity	mg/L	16±2	17±2	16±2
Total hardness	mg/L	13±3	13±3	14±4
Ammonia as nitrogen	mg/L	<0.01	<0.01	<0.01
Nitrate	mg/L	<0.04	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.32±0.2	0.28±0.1	0.27±0.1
Total nitrogen	mg/L	0.32	0.28	0.27
Organic carbon	mg/L	3.6±0.3	2.7±0.3	2.5±0.3
Fluoride	mg/L	0.07±0.02	0.04±0.02	0.04±0.02
Total dissolved solids	mg/L	30±5	32±5	30±5
Total suspended solids	mg/L	2±1	5±2	<1
Turbidity	NTU	0.7±0.1	1.3±0.2	0.6±0.1
ICP				
Calcium	mg/L	3.1±0.4	3.4±0.4	3.5±0.4
Magnesium	mg/L	1.2±0.1	1.1±0.1	1.3±0.2
Potassium	mg/L	0.6±0.2	0.8±0.3	0.8±0.3
Sodium	mg/L	1.3±0.1	1.7±0.2	1.8±0.2
Sulfate	mg/L	2.3±0.5	1.4±0.3	1.4±0.3
Phosphorus	mg/L	<0.01	<0.01	<0.01
Aluminum	mg/L	0.0094±0.002	0.018±0.003	0.0020±0.001
Antimony	mg/L	<0.0002	<0.0002	<0.0002
Arsenic	ug/L	0.1±0.1	0.2±0.1	0.1±0.1
Barium	mg/L	0.0038±0.001	0.0046±0.001	0.0044±0.001
Beryllium	mg/L	<0.0001	<0.0001	<0.0001
Boron	mg/L	<0.01	0.01±0.01	0.01±0.01
Cadmium	mg/L	0.00002±0.00001	0.00002±0.00001	0.00001±0.00001
Chromium	mg/L	<0.0005	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001	<0.0001
Copper	mg/L	<0.0002	<0.0002	<0.0002

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Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34922 09/30/2011 DUPLICATE 1 *WATER*
34923 09/25/2011 STONY RAPIDS *WATER*
34924 09/25/2011 BLACK LAKE *WATER*

Analyte	Units	34922	34923	34924
ICP				
Iron	mg/L	0.061±0.005	0.074±0.005	0.026±0.003
Lead	mg/L	<0.0001	<0.0001	<0.0001
Manganese	mg/L	0.016±0.0009	0.027±0.001	0.036±0.001
Mercury	ug/L	<0.01	<0.01	<0.01
Molybdenum	mg/L	0.0004±0.0002	0.0002±0.0001	0.0002±0.0001
Nickel	mg/L	0.0001±0.0001	0.0002±0.0001	0.0002±0.0001
Selenium	mg/L	<0.0001	<0.0001	<0.0001
Silver	mg/L	<0.00005	<0.00005	<0.00005
Strontium	mg/L	0.012±0.002	0.044±0.004	0.047±0.004
Thallium	mg/L	<0.0002	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001	<0.0001
Titanium	mg/L	0.0003±0.0002	0.0016±0.0005	<0.0002
Uranium	ug/L	<0.1	<0.1	<0.1
Vanadium	mg/L	<0.0001	0.0001±0.0001	<0.0001
Zinc	mg/L	0.0018±0.001	<0.0005	0.0018±0.001
Radio Chemistry				
Lead-210	Bq/L	<0.02	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.006	<0.005
Radium-226	Bq/L	0.006±0.005	<0.005	<0.005
Thorium-230	Bq/L	<0.01	<0.01	<0.01

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

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Nov 02, 2011

CanNorth, Canada North Environmental Services Limited

34925 09/27/2011 WOLLASTON LAKE *WATER*
34926 09/24/2011 FOND DU LAC *WATER*
34927 09/30/2011 URANIUM CITY (MARTIN LAKE) *WATER*

Analyte	Units	34925	34926	34927
Inorganic Chemistry				
Bicarbonate	mg/L	17±4	18±4	63±7
Carbonate	mg/L	<1	<1	<1
Chloride	mg/L	0.4±0.1	2.8±0.2	1.5±0.2
Hydroxide	mg/L	<1	<1	<1
P. alkalinity	mg/L	<1	<1	<1
pH	pH units	7.10±0.1	7.22±0.1	7.75±0.1
Specific conductivity	uS/cm	34±3	39±4	114±7
Sum of ions	mg/L	28±5	30±5	90±8
Total alkalinity	mg/L	14±2	15±2	52±3
Total hardness	mg/L	13±3	14±4	49±6
Ammonia as nitrogen	mg/L	<0.01	<0.01	<0.01
Nitrate	mg/L	<0.04	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.28±0.1	0.26±0.1	0.41±0.2
Total nitrogen	mg/L	0.28	0.26	0.41
Organic carbon	mg/L	2.5±0.3	2.7±0.3	7.4±0.4
Fluoride	mg/L	0.05±0.02	0.05±0.02	0.10±0.02
Total dissolved solids	mg/L	24±4	28±5	72±20
Total suspended solids	mg/L	<1	<1	2±1
Turbidity	NTU	0.3±0.1	1.0±0.1	0.3±0.1
ICP				
Calcium	mg/L	3.4±0.4	3.7±0.4	15±1
Magnesium	mg/L	1.1±0.1	1.3±0.2	2.9±0.3
Potassium	mg/L	0.7±0.2	0.8±0.3	0.9±0.3
Sodium	mg/L	1.4±0.2	1.6±0.2	1.9±0.2
Sulfate	mg/L	4.0±0.7	1.5±0.3	4.5±0.7
Phosphorus	mg/L	<0.01	<0.01	<0.01
Aluminum	mg/L	0.0047±0.001	0.014±0.002	0.0051±0.002
Antimony	mg/L	<0.0002	<0.0002	<0.0002
Arsenic	ug/L	<0.1	0.1±0.1	0.1±0.1
Barium	mg/L	0.0041±0.001	0.0051±0.002	0.032±0.004
Beryllium	mg/L	<0.0001	<0.0001	<0.0001
Boron	mg/L	<0.01	0.01±0.01	<0.01
Cadmium	mg/L	0.00001±0.00001	0.00002±0.00001	0.00001±0.00001
Chromium	mg/L	<0.0005	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001	<0.0001
Copper	mg/L	<0.0002	<0.0002	<0.0002

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CanNorth, Canada North Environmental Services Limited

34925 09/27/2011 WOLLASTON LAKE *WATER*
34926 09/24/2011 FOND DU LAC *WATER*
34927 09/30/2011 URANIUM CITY (MARTIN LAKE) *WATER*

Analyte	Units	34925	34926	34927
ICP				
Iron	mg/L	0.014±0.002	0.023±0.003	0.031±0.004
Lead	mg/L	<0.0001	<0.0001	<0.0001
Manganese	mg/L	0.0047±0.0007	0.0030±0.0007	0.014±0.0009
Mercury	ug/L	<0.01	<0.01	<0.01
Molybdenum	mg/L	0.0012±0.0004	0.0001±0.0001	0.0004±0.0002
Nickel	mg/L	0.0001±0.0001	0.0002±0.0001	0.0001±0.0001
Selenium	mg/L	<0.0001	<0.0001	0.0001±0.0001
Silver	mg/L	<0.00005	<0.00005	<0.00005
Strontium	mg/L	0.012±0.002	0.043±0.004	0.049±0.004
Thallium	mg/L	<0.0002	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001	<0.0001
Titanium	mg/L	<0.0002	0.0008±0.0003	0.0003±0.0002
Uranium	ug/L	<0.1	<0.1	3.5±0.4
Vanadium	mg/L	<0.0001	<0.0001	<0.0001
Zinc	mg/L	<0.0005	<0.0005	0.0014±0.001
Radio Chemistry				
Lead-210	Bq/L	<0.02	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005	0.008±0.005
Thorium-230	Bq/L	<0.01	<0.01	<0.01

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Nov 02, 2011

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34928 10/05/2011 CAMSELL PORTAGE *WATER*

Analyte	Units	34928
Inorganic Chemistry		
Bicarbonate	mg/L	35±5
Carbonate	mg/L	<1
Chloride	mg/L	3.1±0.3
Hydroxide	mg/L	<1
P. alkalinity	mg/L	<1
pH	pH units	7.46±0.1
Specific conductivity	uS/cm	66±5
Sum of ions	mg/L	54±7
Total alkalinity	mg/L	29±2
Total hardness	mg/L	26±5
Ammonia as nitrogen	mg/L	<0.01
Nitrate	mg/L	<0.04
Total Kjeldahl nitrogen	mg/L	0.23±0.1
Total nitrogen	mg/L	0.23
Organic carbon	mg/L	2.8±0.3
Fluoride	mg/L	0.06±0.02
Total dissolved solids	mg/L	40±6
Total suspended solids	mg/L	<1
Turbidity	NTU	0.3±0.1
ICP		
Calcium	mg/L	6.9±0.7
Magnesium	mg/L	2.1±0.2
Potassium	mg/L	0.9±0.3
Sodium	mg/L	2.5±0.2
Sulfate	mg/L	3.6±0.6
Phosphorus	mg/L	<0.01
Aluminum	mg/L	0.0016±0.0009
Antimony	mg/L	<0.0002
Arsenic	ug/L	0.1±0.1
Barium	mg/L	0.010±0.002
Beryllium	mg/L	<0.0001
Boron	mg/L	<0.01
Cadmium	mg/L	0.00001±0.00001
Chromium	mg/L	<0.0005
Cobalt	mg/L	<0.0001
Copper	mg/L	<0.0002

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CanNorth, Canada North Environmental Services Limited

34928 10/05/2011 CAMSELL PORTAGE *WATER*

Analyte	Units	34928
ICP		
Iron	mg/L	0.0049±0.001
Lead	mg/L	<0.0001
Manganese	mg/L	0.0008±0.0005
Mercury	ug/L	<0.01
Molybdenum	mg/L	0.0002±0.0001
Nickel	mg/L	0.0002±0.0001
Selenium	mg/L	<0.0001
Silver	mg/L	<0.00005
Strontium	mg/L	0.051±0.004
Thallium	mg/L	<0.0002
Tin	mg/L	<0.0001
Titanium	mg/L	<0.0002
Uranium	ug/L	<0.1
Vanadium	mg/L	<0.0001
Zinc	mg/L	<0.0005
Radio Chemistry		
Lead-210	Bq/L	<0.02
Polonium-210	Bq/L	<0.005
Radium-226	Bq/L	<0.005
Thorium-230	Bq/L	<0.01

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Nov 02, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK, S7L 6M7

This report was generated for samples included in SRC Group # 2011-10033

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	mg/L	0.0586	0.0579
Antimony	mg/L	0.00333	0.00322
Arsenic	ug/L	3.99	3.94
Barium	mg/L	0.148	0.150
Beryllium	mg/L	0.0130	0.0130
Boron	mg/L	0.0815	0.0792
Cadmium	mg/L	0.00413	0.00415
Calcium	mg/L	10	10
Chloride	mg/L	8.35	8.26
Chloride	mg/L	8.35	8.68
Chromium	mg/L	0.0444	0.0458
Cobalt	mg/L	0.0644	0.0652
Copper	mg/L	0.164	0.164
Fluoride	mg/L	1.69	1.72
Iron	mg/L	0.224	0.225
Lead	mg/L	0.00790	0.00809
Lead-210	Bq	1.61	1.82
Lead-210	Bq/L	19.9	22.0
Lead-210	Bq/L	19.9	22.2
Lead-210	Bq	1.61	1.62
Lead-210	Bq/L	19.9	22.2
Lead-210	Bq	0.322	0.327
Lead-210	Bq/L	19.9	19.8
Lead-210	Bq	1.61	1.76
Magnesium	mg/L	15	15
Manganese	mg/L	0.0473	0.0476
Mercury	ug/L	0.191	0.174
Molybdenum	mg/L	0.0660	0.0651
N, Ammonia	mg/L	1.10	1.11
N, NO2 + NO3	mg/L	1.55	1.53
Nickel	mg/L	0.0814	0.0822

QC Analysis	Units	Target Value	Obtained Value
Organic carbon	mg/L	44.4	42.8
Organic carbon	mg/L	0.22	0.22
pH	pH units	4.00	4.00
Phosphorus	mg/L	5.75	5.50
Polonium-210	Bq/L	19.9	21.6
Polonium-210	Bq	0.064	0.059
Polonium-210	Bq/L	19.9	21.3
Polonium-210	Bq	1.61	1.78
Polonium-210	Bq/L	19.9	22.0
Polonium-210	Bq	1.61	1.48
Potassium	mg/L	21	21
Radium-226	Bq/L	27.1	26.6
Radium-226	Bq	0.427	0.433
Selenium	mg/L	0.00843	0.00841
Silver	mg/L	0.00962	0.00940
Sodium	mg/L	14	14
Specific Conductivity	uS/cm	330	322
Strontium	mg/L	0.247	0.251
Sulfate	mg/L	25	24
Thallium	mg/L	0.00830	0.00844
Thorium-230	Bq/L	24.0	23.8
Thorium-230	Bq/L	24.0	25.0
Thorium-232	Bq	0.216	0.220
Thorium-232	Bq	0.216	0.207
Tin	mg/L	0.0117	0.0119
Titanium	mg/L	0.0147	0.0144
Total alkalinity	mg/L	250	246.6
Total dissolved solids	mg/L	100	89
Total Kjeldahl nitrogen	mg/L	0.838	0.852
Total Kjeldahl nitrogen	mg/L	0.838	0.859
Total suspended solids	mg/L	100	95.7
Turbidity	mg/L	11.2	11.2
Uranium	ug/L	14.0	14.5
Vanadium	mg/L	0.0445	0.0446
Zinc	mg/L	0.379	0.378

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	mg/L	<0.00005	<0.00005
Silver	mg/L	<0.00005	<0.00005
Aluminum	mg/L	0.019	0.012
Aluminum	mg/L	0.011	0.012
Arsenic	ug/L	0.2	0.2
Arsenic	ug/L	0.2	0.2
Boron	mg/L	0.01	0.01

Duplicate Analysis	Units	First Result	Second Result
Boron	mg/L	0.01	0.01
Barium	mg/L	0.011	0.012
Barium	mg/L	0.012	0.012
Beryllium	mg/L	<0.0001	<0.0001
Beryllium	mg/L	<0.0001	<0.0001
Calcium	mg/L	<0.1	<0.1
Calcium	mg/L	<0.1	<0.1
Cadmium	mg/L	<0.00001	0.00001
Cadmium	mg/L	<0.00001	0.00001
Chloride	mg/L	1.8	1.7
Chloride	mg/L	3.2	3.1
Chloride	mg/L	<0.1	<0.1
Cobalt	mg/L	<0.0001	<0.0001
Cobalt	mg/L	<0.0001	<0.0001
Chromium	mg/L	<0.0005	<0.0005
Chromium	mg/L	<0.0005	<0.0005
Copper	mg/L	0.0002	0.0002
Copper	mg/L	0.0003	0.0003
Fluoride	mg/L	0.16	0.19
Fluoride	mg/L	0.06	0.05
Iron	mg/L	0.020	0.019
Iron	mg/L	0.021	0.021
Mercury	ug/L	<0.01	<0.01
Potassium	mg/L	<0.1	<0.1
Potassium	mg/L	<0.1	<0.1
Magnesium	mg/L	<0.1	<0.1
Magnesium	mg/L	<0.1	<0.1
Manganese	mg/L	0.0012	0.0012
Manganese	mg/L	0.0014	0.0013
Molybdenum	mg/L	0.0002	0.0002
Molybdenum	mg/L	0.0002	0.0002
Sodium	mg/L	<0.1	<0.1
Sodium	mg/L	<0.1	<0.1
Ammonia as nitrogen	mg/L	11	11
Ammonia as nitrogen	mg/L	<0.01	<0.01
Nickel	mg/L	0.0002	0.0002
Nickel	mg/L	0.0002	0.0002
Nitrate	mg/L	<0.04	<0.04
Nitrate	mg/L	<0.04	<0.04
Nitrate	mg/L	<0.04	<0.04
Phosphorus	mg/L	<0.01	<0.01
Lead	mg/L	<0.0001	<0.0001
Lead	mg/L	0.0002	0.0002
Lead-210	Bq/L	11	11
Lead-210	Bq/L	<0.004	<0.004
Lead-210	Bq/L	0.08	0.10
Lead-210	Bq/L	<0.02	<0.02
Lead-210	Bq/L	<0.02	<0.02
Lead-210	Bq/L	<0.02	<0.02
pH	pH units	7.99	8.00
pH	pH units	7.12	7.12
pH	pH units	7.11	7.13
Polonium-210	Bq/L	0.008	0.007
Polonium-210	Bq/L	<0.005	<0.005
Polonium-210	Bq/L	<0.005	<0.005

Duplicate Analysis	Units	First Result	Second Result
Polonium-210	Bq/L	<0.005	<0.005
Polonium-210	Bq/L	<0.005	<0.005
Radium-226	Bq/L	0.008	<0.005
Radium-226	Bq/L	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005
Antimony	mg/L	<0.0002	<0.0002
Antimony	mg/L	<0.0002	<0.0002
Selenium	mg/L	<0.0001	<0.0001
Selenium	mg/L	<0.0001	<0.0001
Tin	mg/L	<0.0001	<0.0001
Tin	mg/L	<0.0001	<0.0001
Sulfate	mg/L	0.2	<0.2
Sulfate	mg/L	<0.2	<0.2
Specific conductivity	uS/cm	170	169
Specific conductivity	uS/cm	35	35
Specific conductivity	uS/cm	40	40
Strontium	mg/L	0.054	0.054
Strontium	mg/L	0.057	0.056
Total dissolved solids	mg/L	2	2
Total dissolved solids	mg/L	44	44
Total dissolved solids	mg/L	362	358
Total dissolved solids	mg/L	30	30
Thorium-230	Bq/L	<0.01	<0.01
Thorium-230	Bq/L	<0.01	<0.01
Thorium-230	Bq/L	<0.01	<0.01
Thorium-230	Bq/L	<0.01	<0.01
Titanium	mg/L	0.0005	0.0005
Titanium	mg/L	0.0003	0.0004
Total Kjeldahl nitrogen	mg/L	0.23	0.16
Total Kjeldahl nitrogen	mg/L	0.25	0.25
Total Kjeldahl nitrogen	mg/L	0.27	0.27
Thallium	mg/L	<0.0002	<0.0002
Thallium	mg/L	<0.0002	<0.0002
Organic carbon	mg/L	<0.2	<0.2
Organic carbon	mg/L	1.8	1.7
Organic carbon	mg/L	2.7	2.7
Total alkalinity	mg/L	89	86
Total alkalinity	mg/L	15	16
Total alkalinity	mg/L	17	15
Total suspended solids	mg/L	<1	<1
Total suspended solids	mg/L	<1	<1
Total suspended solids	mg/L	<1	<1
Turbidity	NTU	0.448	0.437
Turbidity	NTU	0.414	0.417
Turbidity	NTU	1.27	1.29
Uranium	ug/L	0.5	0.5
Uranium	ug/L	7.8	7.8
Vanadium	mg/L	0.0002	0.0002
Vanadium	mg/L	<0.0001	<0.0001
Zinc	mg/L	<0.0005	<0.0005
Zinc	mg/L	<0.0005	<0.0005

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	**% Recovered**
Cl, IC	95
Cl, IC	100
Aluminum	103
Antimony	97
Arsenic	98
Barium	99
Beryllium	99
Boron	108
Cadmium	99
Calcium	98
Chromium	99
Cobalt	99
Copper	99
Iron	98
Lead	101
Lead-210	113
Magnesium	99
Manganese	103
Mercury	105
Molybdenum	97
NH3-N	91
Nickel	98
NO2+NO3-N	113
Phosphorus	102
Potassium	104
Selenium	103
Silver	95
Sodium	101
Strontium	100
Sulfate	98
Thallium	98
Tin	99
Titanium	99
TKN (N, total Kjeldahl)	89
TKN (N, total Kjeldahl)	98
TOC	80
Uranium	100
Vanadium	98
Zinc	101

All quality control results were within the specified limits and considered acceptable.

Roxane Ortmann - Quality Control Supervisor

SRC Group # 2011-10097

Dec 16, 2011

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ# 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Dec 16, 2011

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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ# 1489

35281 09/21/2011 STONY RAPIDS, STATION 1, SAMPLE 1 COMPOSITE *CORE*
35282 09/21/2011 STONY RAPIDS, STATION 2, SAMPLE 1 COMPOSITE *CORE*
35283 09/25/2011 STONY RAPIDS, STATION 3, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35281	35282	35283
Inorganic Chemistry				
pH	pH units	4.61 1:1slurry	4.40 1:1slurry	4.84 1:1slurry
Moisture	%	8.36±0.2	7.26±0.2	16.08±0.3
ICP				
Aluminum	ug/g	8900±2000	8800±2000	9300±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.8±0.1	2.0±0.1	1.0±0.1
Barium	ug/g	31±1	23±0.9	18±0.8
Beryllium	ug/g	0.3±0.1	0.2±0.1	0.2±0.1
Boron	ug/g	<1	<1	<1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	17±3	15±3	9.3±2
Cobalt	ug/g	2.2±0.2	1.5±0.2	1.1±0.2
Copper	ug/g	2.1±1	2.7±1	1.3±0.8
Iron	ug/g	10400±400	7000±300	4570±40
Lead	ug/g	3.8±0.6	2.6±0.5	3.1±0.5
Manganese	ug/g	100±6	50±4	77±5
Molybdenum	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Nickel	ug/g	6.1±0.2	5.6±0.2	3.1±0.2
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	51±4	65±5	36±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.5±0.1	0.3±0.1	0.4±0.1

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Dec 16, 2011

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35281 09/21/2011 STONY RAPIDS, STATION 1, SAMPLE 1 COMPOSITE *CORE*
35282 09/21/2011 STONY RAPIDS, STATION 2, SAMPLE 1 COMPOSITE *CORE*
35283 09/25/2011 STONY RAPIDS, STATION 3, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35281	35282	35283
ICP				
Titanium	ug/g	790±100	370±80	590±100
Uranium	ug/g	1.0±0.3	0.9±0.3	0.6±0.2
Vanadium	ug/g	19±1	12±1	11±0.9
Zinc	ug/g	8.2±2	6.4±2	6.5±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	<0.04
Polonium-210	Bq/g	0.01±0.01	0.02±0.01	0.02±0.01
Radium-226	Bq/g	0.04±0.03	0.02±0.02	0.01±0.01
Thorium-230	Bq/g	<0.02	0.02±0.02	0.02±0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35284 09/26/2011 STONY RAPIDS, STATION 4, SAMPLE 1 COMPOSITE *CORE*
35285 09/26/2011 STONY RAPIDS, STATION 5, SAMPLE 1 COMPOSITE *CORE*
35286 09/25/2011 BLACK LAKE, STATION 1, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35284	35285	35286
Inorganic Chemistry				
pH	pH units	4.38 1:1slurry	3.82 1:1slurry	4.08 1:1slurry
Moisture	%	19.28±0.4	6.65±0.2	12.96±0.3
ICP				
Aluminum	ug/g	9800±2000	7600±1000	10800±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.1±0.1	0.9±0.1	1.3±0.1
Barium	ug/g	24±0.9	39±1	28±1
Beryllium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Boron	ug/g	<1	<1	1±1
Cadmium	ug/g	<0.1	0.1±0.1	0.1±0.1
Chromium	ug/g	12±2	7.1±2	15±3
Cobalt	ug/g	1.4±0.2	1.2±0.2	2.1±0.2
Copper	ug/g	1.3±0.8	3.3±1	3.6±1
Iron	ug/g	9100±400	4400±40	11600±400
Lead	ug/g	3.4±0.5	2.7±0.5	4.8±0.6
Manganese	ug/g	110±6	63±5	120±7
Molybdenum	ug/g	0.2±0.1	0.2±0.1	0.2±0.1
Nickel	ug/g	3.3±0.2	3.7±0.2	5.4±0.2
Selenium	ug/g	0.1±0.1	0.1±0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	27±3	27±3	36±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.5±0.1	0.3±0.1	0.5±0.1
Titanium	ug/g	810±100	430±90	840±100
Uranium	ug/g	0.7±0.3	0.4±0.2	0.6±0.2
Vanadium	ug/g	16±1	9.1±0.8	20±1
Zinc	ug/g	8.1±2	7.4±2	9.7±2
Radio Chemistry				
Lead-210	Bq/g	0.05±0.04	<0.04	<0.04
Polonium-210	Bq/g	0.02±0.01	0.02±0.01	0.02±0.01
Radium-226	Bq/g	<0.01	0.03±0.02	0.03±0.02
Thorium-230	Bq/g	0.03±0.02	<0.02	<0.02

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Results are reported on a dry basis.

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35287 09/25/2011 BLACK LAKE, STATION 2, SAMPLE 1 COMPOSITE *CORE*
35288 09/22/2011 BLACK LAKE, STATION 3, SAMPLE 1 COMPOSITE *CORE*
35289 09/23/2011 BLACK LAKE, STATION 4, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35287	35288	35289
Inorganic Chemistry				
pH	pH units	3.46 1:1slurry	4.91 1:1slurry	3.36 1:1slurry
Moisture	%	30.46±0.4	5.81±0.2	29.98±0.4
ICP				
Aluminum	ug/g	2050±200	8900±2000	3900±300
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.9±0.1	1.2±0.1	0.6±0.1
Barium	ug/g	82±2	22±0.9	86±2
Beryllium	ug/g	<0.1	0.2±0.1	0.1±0.1
Boron	ug/g	<1	<1	<1
Cadmium	ug/g	0.2±0.1	0.1±0.1	0.2±0.1
Chromium	ug/g	8.8±2	12±2	6.7±2
Cobalt	ug/g	0.3±0.2	2.2±0.2	0.4±0.2
Copper	ug/g	3.4±1	3.8±1	2.6±1
Iron	ug/g	2380±30	10400±400	3730±30
Lead	ug/g	4.7±0.6	3.3±0.5	3.3±0.5
Manganese	ug/g	210±9	120±7	80±6
Molybdenum	ug/g	0.3±0.2	0.1±0.1	0.1±0.1
Nickel	ug/g	2.5±0.1	5.6±0.2	1.6±0.1
Selenium	ug/g	0.1±0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	33±4	29±3	24±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	0.3±0.1	0.4±0.1
Titanium	ug/g	200±60	590±100	590±100
Uranium	ug/g	0.3±0.2	0.5±0.2	0.5±0.2
Vanadium	ug/g	5.9±0.7	17±1	8.6±0.8
Zinc	ug/g	17±3	11±2	15±3
Radio Chemistry				
Lead-210	Bq/g	0.20±0.07	<0.04	<0.04
Polonium-210	Bq/g	0.12±0.05	0.02±0.01	0.09±0.04
Radium-226	Bq/g	0.01±0.01	0.02±0.02	0.04±0.03
Thorium-230	Bq/g	<0.02	<0.02	0.02±0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

SRC ANALYTICAL

Dec 16, 2011

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35290 09/22/2011 BLACK LAKE, STATION 5, SAMPLE 1 COMPOSITE *CORE*
35291 09/23/2011 FOND DU LAC, STATION 1, SAMPLE 1 COMPOSITE *CORE*
35292 09/23/2011 FOND DU LAC, STATION 2, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35290	35291	35292
Inorganic Chemistry				
pH	pH units	4.48 1:1slurry	4.10 1:1slurry	4.45 1:1slurry
Moisture	%	5.97±0.2	6.23±0.2	6.75±0.2
ICP				
Aluminum	ug/g	4040±300	1230±100	3770±300
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.1±0.1	0.7±0.1	0.9±0.1
Barium	ug/g	23±0.9	11±0.7	19±0.8
Beryllium	ug/g	0.2±0.1	<0.1	0.1±0.1
Boron	ug/g	1±1	<1	3±1
Cadmium	ug/g	<0.1	<0.1	0.1±0.1
Chromium	ug/g	6.3±2	1.4±0.8	6.8±2
Cobalt	ug/g	1.1±0.2	<0.2	0.9±0.2
Copper	ug/g	1.2±0.8	<0.5	0.8±0.6
Iron	ug/g	3730±30	570±10	3850±30
Lead	ug/g	2.1±0.4	0.9±0.3	1.5±0.4
Manganese	ug/g	55±5	23±3	45±4
Molybdenum	ug/g	<0.1	<0.1	<0.1
Nickel	ug/g	2.8±0.2	0.9±0.1	2.7±0.1
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	30±3	60±5	55±5
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	<0.1	0.2±0.1
Titanium	ug/g	230±60	46±5	320±20
Uranium	ug/g	0.4±0.2	0.3±0.2	0.5±0.2
Vanadium	ug/g	6.9±0.7	1.1±0.3	7.1±0.8
Zinc	ug/g	6.0±2	2.2±1	6.3±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	0.04±0.04	<0.04
Polonium-210	Bq/g	0.02±0.01	0.01±0.01	0.01±0.01
Radium-226	Bq/g	0.02±0.02	<0.01	0.01±0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

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SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35293 09/24/2011 FOND DU LAC, STATION 3, SAMPLE 1 COMPOSITE *CORE*
35294 09/24/2011 FOND DU LAC, STATION 4, SAMPLE 1 COMPOSITE *CORE*
35295 09/24/2011 FOND DU LAC, STATION 5, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35293	35294	35295
Inorganic Chemistry				
pH	pH units	4.53 1:1slurry	4.49 1:1slurry	4.15 1:1slurry
Moisture	%	2.95±0.1	1.96±0.1	1.92±0.1
ICP				
Aluminum	ug/g	1970±200	510±70	600±80
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.6±0.1	0.4±0.1	0.4±0.1
Barium	ug/g	14±0.7	6.3±0.5	12±0.7
Beryllium	ug/g	<0.1	<0.1	<0.1
Boron	ug/g	1±1	<1	<1
Cadmium	ug/g	<0.1	<0.1	0.1±0.1
Chromium	ug/g	2.2±1	0.7±0.6	<0.5
Cobalt	ug/g	<0.2	<0.2	<0.2
Copper	ug/g	<0.5	<0.5	<0.5
Iron	ug/g	1730±20	380±10	370±10
Lead	ug/g	1.2±0.3	0.8±0.3	1.1±0.3
Manganese	ug/g	19±3	4.9±1	28±3
Molybdenum	ug/g	<0.1	<0.1	0.1±0.1
Nickel	ug/g	1.0±0.1	0.4±0.1	0.3±0.1
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	35±4	41±4	37±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	<0.1	<0.1	<0.1
Titanium	ug/g	64±6	17±3	26±4
Uranium	ug/g	0.6±0.2	0.2±0.1	0.3±0.2
Vanadium	ug/g	2.3±0.4	0.5±0.2	0.6±0.2
Zinc	ug/g	2.7±1	1.9±1	2.5±1
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	<0.04
Polonium-210	Bq/g	0.02±0.01	<0.01	0.02±0.01
Radium-226	Bq/g	0.02±0.02	0.01±0.01	0.02±0.02
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35296 09/27/2011 WOLLASTON LAKE, STATION 1, SAMPLE 1 COMPOSITE *CORE*
35297 09/28/2011 WOLLASTON LAKE, STATION 2, SAMPLE 1 COMPOSITE *CORE*
35298 09/28/2011 WOLLASTON LAKE, STATION 3, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35296	35297	35298
Inorganic Chemistry				
pH	pH units	4.70 1:1slurry	4.14 1:1slurry	4.23 1:1slurry
Moisture	%	10.07±0.3	9.93±0.3	7.67±0.2
ICP				
Aluminum	ug/g	11700±2000	6900±1000	8300±1000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.9±0.1	1.0±0.1	0.8±0.1
Barium	ug/g	30±1	26±1	24±0.9
Beryllium	ug/g	0.4±0.1	0.3±0.1	0.3±0.1
Boron	ug/g	<1	<1	<1
Cadmium	ug/g	<0.1	0.1±0.1	<0.1
Chromium	ug/g	14±2	13±2	13±2
Cobalt	ug/g	1.9±0.2	1.7±0.2	1.8±0.2
Copper	ug/g	1.4±0.8	1.4±0.8	1.3±0.8
Iron	ug/g	12500±400	11200±400	11500±400
Lead	ug/g	4.0±0.6	3.0±0.5	3.4±0.5
Manganese	ug/g	100±6	110±6	91±6
Molybdenum	ug/g	0.2±0.1	<0.1	0.5±0.2
Nickel	ug/g	4.6±0.2	4.2±0.2	4.2±0.2
Selenium	ug/g	0.1±0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	7.3±2	6.7±2	4.6±1
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.8±0.1	0.6±0.1	0.8±0.1
Titanium	ug/g	790±100	610±100	700±100
Uranium	ug/g	1.3±0.3	1.4±0.4	1.5±0.4
Vanadium	ug/g	19±1	17±1	18±1
Zinc	ug/g	9.8±2	8.1±2	12±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	0.05±0.04
Polonium-210	Bq/g	0.03±0.02	0.03±0.02	0.03±0.02
Radium-226	Bq/g	<0.01	0.07±0.05	0.07±0.05
Thorium-230	Bq/g	0.02±0.02	<0.02	<0.02

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SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35299 09/28/2011 WOLLASTON LAKE, STATION 4, SAMPLE 1 COMPOSITE *CORE*
35300 09/28/2011 WOLLASTON LAKE, STATION 5, SAMPLE 1 COMPOSITE *CORE*
35301 09/30/2011 URANIUM CITY, STATION 1, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35299	35300	35301
Inorganic Chemistry				
pH	pH units	5.02 1:1slurry	5.20 1:1slurry	4.96 1:1slurry
Moisture	%	6.44±0.2	9.51±0.2	5.33±0.2
ICP				
Aluminum	ug/g	7100±1000	7600±1000	10500±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.6±0.1	0.6±0.1	1.1±0.1
Barium	ug/g	21±0.9	21±0.9	30±1
Beryllium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Boron	ug/g	<1	<1	2±1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	7.2±2	12±2	12±3
Cobalt	ug/g	1.3±0.2	1.5±0.2	2.6±0.3
Copper	ug/g	1.7±0.9	1.2±0.8	2.0±1
Iron	ug/g	6300±300	8300±300	11600±400
Lead	ug/g	2.1±0.4	2.1±0.4	3.2±0.5
Manganese	ug/g	79±5	100±6	110±6
Molybdenum	ug/g	<0.1	0.2±0.1	0.2±0.2
Nickel	ug/g	3.1±0.2	6.0±0.2	5.3±0.2
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	5.4±2	6.2±2	22±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.4±0.1	0.5±0.1	0.5±0.1
Titanium	ug/g	400±80	540±100	600±100
Uranium	ug/g	0.7±0.3	0.7±0.3	0.5±0.2
Vanadium	ug/g	10±0.9	13±1	19±1
Zinc	ug/g	7.0±2	7.0±2	13±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	<0.04
Polonium-210	Bq/g	0.02±0.01	0.01±0.01	0.01±0.01
Radium-226	Bq/g	0.06±0.04	<0.02	<0.02
Thorium-230	Bq/g	<0.02	0.03±0.02	<0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

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Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35302 09/30/2011 URANIUM CITY, STATION 2, SAMPLE 1 COMPOSITE *CORE*
35303 10/01/2011 URANIUM CITY, STATION 3, SAMPLE 1 COMPOSITE *CORE*
35304 10/01/2011 URANIUM CITY, STATION 4, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35302	35303	35304
Inorganic Chemistry				
pH	pH units	4.96 1:1slurry	4.98 1:1slurry	4.83 1:1slurry
Moisture	%	6.40±0.2	3.44±0.2	8.39±0.2
ICP				
Aluminum	ug/g	10700±2000	14200±2000	13300±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.6±0.1	1.6±0.1	1.0±0.1
Barium	ug/g	33±1	83±2	52±1
Beryllium	ug/g	0.4±0.1	0.5±0.1	0.4±0.1
Boron	ug/g	2±1	3±1	3±1
Cadmium	ug/g	<0.1	<0.1	0.1±0.1
Chromium	ug/g	13±2	17±3	17±3
Cobalt	ug/g	2.8±0.3	3.5±0.3	2.6±0.3
Copper	ug/g	3.5±1	2.4±1	1.8±0.9
Iron	ug/g	11700±400	15800±500	14300±400
Lead	ug/g	3.5±0.5	5.6±0.7	4.1±0.6
Manganese	ug/g	120±7	190±8	180±8
Molybdenum	ug/g	0.3±0.2	0.2±0.1	0.3±0.2
Nickel	ug/g	5.8±0.2	7.9±0.3	6.8±0.2
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	28±3	23±3	21±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.4±0.1	0.5±0.1	0.5±0.1
Titanium	ug/g	700±100	700±100	690±100
Uranium	ug/g	0.7±0.3	0.7±0.3	1.2±0.3
Vanadium	ug/g	18±1	25±1	23±1
Zinc	ug/g	15±3	14±2	14±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	<0.04
Polonium-210	Bq/g	0.05±0.03	0.03±0.02	0.02±0.01
Radium-226	Bq/g	<0.02	0.03±0.03	<0.02
Thorium-230	Bq/g	<0.02	0.04±0.02	0.02±0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35305 10/02/2011 URANIUM CITY, STATION 5, SAMPLE 1 COMPOSITE *CORE*
35306 10/03/2011 CAMSELL PORTAGE, STATION 1, SAMPLE 1 COMPOSITE *CORE*
35307 10/04/2011 CAMSELL PORTAGE, STATION 2, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35305	35306	35307
Inorganic Chemistry				
pH	pH units	4.18 1:1slurry	4.97 1:1slurry	3.86 1:1slurry
Moisture	%	7.93±0.2	4.73±0.2	5.85±0.2
ICP				
Aluminum	ug/g	8400±1000	16400±2000	8100±1000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.4±0.1	0.7±0.1	0.8±0.1
Barium	ug/g	43±1	55±1	49±1
Beryllium	ug/g	0.3±0.1	0.5±0.1	0.3±0.1
Boron	ug/g	3±1	6±1	3±1
Cadmium	ug/g	0.1±0.1	0.1±0.1	<0.1
Chromium	ug/g	8.4±2	20±3	7.3±2
Cobalt	ug/g	1.4±0.2	6.3±0.4	1.5±0.2
Copper	ug/g	1.3±0.8	4.5±1	1.3±0.8
Iron	ug/g	8700±400	19800±500	7400±300
Lead	ug/g	2.9±0.5	4.5±0.6	1.7±0.4
Manganese	ug/g	92±6	200±9	54±5
Molybdenum	ug/g	0.3±0.2	0.7±0.3	0.1±0.1
Nickel	ug/g	2.9±0.2	9.1±0.3	3.3±0.2
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	23±3	23±3	22±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.4±0.1	0.7±0.1	1.5±0.2
Titanium	ug/g	620±100	800±100	360±80
Uranium	ug/g	0.4±0.2	0.9±0.3	0.5±0.2
Vanadium	ug/g	16±1	31±2	11±0.9
Zinc	ug/g	9.0±2	24±3	8.2±2
Radio Chemistry				
Lead-210	Bq/g	<0.04	<0.04	<0.04
Polonium-210	Bq/g	0.03±0.02	0.02±0.01	0.02±0.01
Radium-226	Bq/g	<0.02	<0.02	<0.02
Thorium-230	Bq/g	<0.02	0.02±0.02	<0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

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Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

35308 10/04/2011 CAMSELL PORTAGE, STATION 3, SAMPLE 1 COMPOSITE *CORE*
35309 10/05/2011 CAMSELL PORTAGE, STATION 5, SAMPLE 1 COMPOSITE *CORE*

Analyte	Units	35308	35309
Inorganic Chemistry			
pH	pH units	4.80 1:1slurry	4.06 1:1slurry
Moisture	%	3.82±0.2	5.67±0.2
ICP			
Aluminum	ug/g	7100±1000	2630±200
Antimony	ug/g	<0.2	<0.2
Arsenic	ug/g	0.9±0.1	3.2±0.1
Barium	ug/g	48±1	68±2
Beryllium	ug/g	0.2±0.1	0.3±0.1
Boron	ug/g	1±1	3±1
Cadmium	ug/g	<0.1	<0.1
Chromium	ug/g	11±2	5.7±2
Cobalt	ug/g	1.7±0.2	0.6±0.2
Copper	ug/g	1.1±0.7	1.3±0.8
Iron	ug/g	7800±300	5600±300
Lead	ug/g	1.9±0.4	6.0±0.7
Manganese	ug/g	110±6	26±3
Molybdenum	ug/g	0.1±0.1	0.3±0.2
Nickel	ug/g	4.8±0.2	1.9±0.1
Selenium	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Strontium	ug/g	23±3	240±30
Thallium	ug/g	<0.2	<0.2
Tin	ug/g	0.3±0.1	0.2±0.1
Titanium	ug/g	330±80	110±40
Uranium	ug/g	0.6±0.2	0.5±0.2
Vanadium	ug/g	11±0.9	5.5±0.7
Zinc	ug/g	13±2	3.5±1
Radio Chemistry			
Lead-210	Bq/g	<0.04	<0.04
Polonium-210	Bq/g	<0.01	0.02±0.01
Radium-226	Bq/g	0.06±0.04	0.03±0.02
Thorium-230	Bq/g	<0.02	0.02±0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

SRC ANALYTICAL

422 Downey Road
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Dec 16, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-10097

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	ug/g	23600	25900
Aluminum	ug/g	23600	27100
Antimony	ug/g	6.11	6.22
Antimony	ug/g	6.11	5.66
Arsenic	ug/g	16.8	16.4
Arsenic	ug/g	16.8	16.8
Barium	ug/g	91.9	89.7
Barium	ug/g	91.9	92.1
Beryllium	ug/g	0.710	0.685
Beryllium	ug/g	0.710	0.702
Boron	ug/g	6.31	5.61
Boron	ug/g	6.31	5.85
Cadmium	ug/g	0.300	0.318
Cadmium	ug/g	0.300	0.283
Chromium	ug/g	40.8	38.0
Chromium	ug/g	40.8	39.3
Cobalt	ug/g	14.3	14.4
Cobalt	ug/g	14.3	14.1
Copper	ug/g	44.7	45.2
Copper	ug/g	44.7	45.2
Iron	ug/g	40500	44900
Iron	ug/g	40500	46400
Lead	ug/g	13.3	13.5

QC Analysis	Units	Target Value	Obtained Value
Lead	ug/g	13.3	13.9
Lead-210	Bq/L	22.0	23.6
Lead-210	Bq	0.644	0.663
Lead-210	Bq/L	22.0	21.2
Lead-210	Bq	0.322	0.317
Lead-210	Bq/L	22.0	24.1
Lead-210	Bq	1.61	1.54
Lead-210	Bq	1.61	1.60
Lead-210	Bq/L	22.0	22.4
Manganese	ug/g	1170	1280
Manganese	ug/g	1170	1290
Molybdenum	ug/g	0.727	0.754
Molybdenum	ug/g	0.727	0.745
Nickel	ug/g	19.7	20.6
Nickel	ug/g	19.7	20.9
Polonium-210	Bq/L	19.9	20.7
Polonium-210	Bq	0.644	0.630
Polonium-210	Bq/L	19.9	18.8
Polonium-210	Bq	1.61	1.57
Radium-226	Bq/L	20.6	19.2
Radium-226	Bq	0.043	0.047
Radium-226	Bq/L	20.6	18.4
Radium-226	Bq	0.043	0.050
Selenium	ug/g	0.400	0.371
Selenium	ug/g	0.400	0.387
Silver	ug/g	0.215	0.188
Silver	ug/g	0.215	0.220
Strontium	ug/g	25.5	23.7
Strontium	ug/g	25.5	23.9
Thallium	ug/g	0.160	0.148
Thallium	ug/g	0.160	0.112
Thorium-230	Bq/L	24.0	22.8
Thorium-230	Bq/L	24.0	23.9
Thorium-230	Bq/L	24.0	24.7
Thorium-230	Bq/L	24.0	23.8
Thorium-230	Bq/L	24.0	24.8
Thorium-232	Bq	0.216	0.206
Thorium-232	Bq	0.216	0.209
Thorium-232	Bq	0.216	0.219
Thorium-232	Bq	0.216	0.230
Thorium-232	Bq	0.216	0.248
Tin	ug/g	1.40	1.34
Tin	ug/g	1.40	1.33
Titanium	ug/g	1770	2090
Titanium	ug/g	1770	1920

SRC ANALYTICAL

This report was generated for samples included in SRC Group # 2011-10097 Dec 16, 2011

QC Analysis	Units	Target Value	Obtained Value
Uranium	ug/g	1.06	1.07
Uranium	ug/g	1.06	1.16
Vanadium	ug/g	75.2	73.0
Vanadium	ug/g	75.2	72.6
Zinc	ug/g	80.1	80.4
Zinc	ug/g	80.1	80.8

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result	
Silver	ug/g	<0.1	<0.1	
Silver	ug/g	<0.1	<0.1	
Silver	ug/g	<0.1	<0.1	
Aluminum	ug/g	8900	8000	
Aluminum	ug/g	1300	1300	
Aluminum	ug/g	10500	10400	
Aluminum	ug/g	8060	7340	
Aluminum	ug/g	1230	1140	
Aluminum	ug/g	8940	8990	
Arsenic	ug/g	1.8	1.7	
Arsenic	ug/g	0.7	0.6	
Arsenic	ug/g	1.1	1.0	
Boron	ug/g	<1	1	
Boron	ug/g	<1	<1	
Boron	ug/g	2	2	
Barium	ug/g	31	27	
Barium	ug/g	11	9.6	
Barium	ug/g	30	29	
Beryllium	ug/g	0.3	0.2	
Beryllium	ug/g	<0.1	<0.1	
Beryllium	ug/g	0.3	0.4	
Cadmium	ug/g	<0.1	<0.1	
Cadmium	ug/g	<0.1	0.1	
Cadmium	ug/g	<0.1	<0.1	
Cobalt	ug/g	2.2	2.0	
Cobalt	ug/g	<0.2	<0.2	
Cobalt	ug/g	2.6	2.7	
Chromium	ug/g	17	15	
Chromium	ug/g	1.4	1.4	
Chromium	ug/g	12	17	*(1)
Copper	ug/g	2.1	1.9	

Duplicate Analysis	Units	First Result	Second Result	
Copper	ug/g	<0.5	<0.5	
Copper	ug/g	2.0	2.4	
Iron	ug/g	10400	9300	
Iron	ug/g	400	370	
Iron	ug/g	11600	12000	
Iron	ug/g	8950	8300	
Iron	ug/g	570	540	
Manganese	ug/g	100	86	
Manganese	ug/g	23	22	
Manganese	ug/g	110	110	
Molybdenum	ug/g	0.2	0.4	
Molybdenum	ug/g	<0.1	<0.1	
Molybdenum	ug/g	0.2	0.9	*(2)
Nickel	ug/g	6.1	5.6	
Nickel	ug/g	0.9	0.6	
Nickel	ug/g	5.3	6.8	
Lead	ug/g	3.8	3.4	
Lead	ug/g	0.9	0.8	
Lead	ug/g	3.2	3.2	
Lead-210	Bq/g	0.4	0.5	
Lead-210	Bq/g	<0.04	<0.04	
Lead-210	Bq/g	<0.04	0.06	
Lead-210	Bq/g	<0.04	<0.04	
Lead-210	Bq/g	<0.04	0.05	
Lead-210	Bq/g	<0.8	<0.8	
pH	pH units	4.60	4.62	
pH	pH units	4.12	4.09	
pH	pH units	5.00	4.92	
Polonium-210	Bq/g	0.15	0.13	
Polonium-210	Bq/g	0.01	0.02	
Polonium-210	Bq/g	0.02	<0.01	
Polonium-210	Bq/g	0.01	0.01	
Radium-226	Bq/g	<0.01	<0.01	
Radium-226	Bq/g	0.01	0.01	
Radium-226	Bq/g	<0.02	<0.02	
Antimony	ug/g	<0.2	<0.2	
Antimony	ug/g	<0.2	<0.2	
Antimony	ug/g	<0.2	<0.2	
Selenium	ug/g	<0.1	<0.1	
Selenium	ug/g	<0.1	<0.1	
Selenium	ug/g	<0.1	<0.1	
Tin	ug/g	0.4	0.4	
Tin	ug/g	<0.1	<0.1	
Tin	ug/g	0.4	0.5	
Strontium	ug/g	51	45	
Strontium	ug/g	60	56	

Duplicate Analysis	Units	First Result	Second Result
Strontium	ug/g	22	23
Thorium-230	Bq/g	<0.02	0.02
Thorium-230	Bq/g	7.7	6.5
Thorium-230	Bq/g	0.04	<0.02
Thorium-230	Bq/g	0.03	0.02
Thorium-230	Bq/g	<0.01	<0.01
Thorium-230	Bq/g	8.1	7.6
Thorium-230	Bq/g	<0.4	<0.4
Thorium-230	Bq/g	<0.01	<0.01
Titanium	ug/g	790	620
Titanium	ug/g	50	40
Titanium	ug/g	600	620
Titanium	ug/g	46	43
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Uranium	ug/g	1.0	0.9
Uranium	ug/g	0.2	0.2
Uranium	ug/g	0.5	0.5
Vanadium	ug/g	19	17
Vanadium	ug/g	1.1	1.0
Vanadium	ug/g	19	19
Zinc	ug/g	8.2	7.6
Zinc	ug/g	2.2	2.0
Zinc	ug/g	13	13

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	Percent Recovery
Lead-210	115
Lead-210	113
Polonium-210	96
Thorium-230	91

*(1)(2) The duplicate results for Chromium and Molybdenum were outside the laboratory's specified limits. The data was reviewed and the samples were reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-10098

Jan 20, 2012

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

SRC ANALYTICAL

Jan 20, 2012

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

35417 09/23/2011 KELLY BAY - LT03 - SP 8-1 *FISH FLESH*
35418 09/23/2011 KELLY BAY - LT03 - SP 8-1 *FISH BONES*
35419 09/23/2011 KELLY BAY - LT04 - SP 8-1 *FISH FLESH*

Analyte	Units	35417	35418	35419
Inorganic Chemistry				
Mercury	ug/g	0.19±0.04	0.10±0.03	0.10±0.03
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.05±0.02	0.07±0.01
Barium	ug/g	<0.01	1.4±0.04	0.01±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.002±0.002
Copper	ug/g	0.27±0.09	0.14±0.05	0.31±0.05
Iron	ug/g	3.1±1	14±2	2.8±1
Lead	ug/g	<0.002	<0.01	0.003±0.002
Manganese	ug/g	0.09±0.04	3.9±0.4	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.11±0.02	<0.01
Selenium	ug/g	0.31±0.05	0.23±0.06	0.17±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.13±0.05	132±2	0.19±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01

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35417 09/23/2011 KELLY BAY - LT03 - SP 8-1 *FISH FLESH*
35418 09/23/2011 KELLY BAY - LT03 - SP 8-1 *FISH BONES*
35419 09/23/2011 KELLY BAY - LT04 - SP 8-1 *FISH FLESH*

Analyte	Units	35417	35418	35419
ICP				
Titanium	ug/g	0.08±0.02	0.28±0.07	0.08±0.02
Uranium	ug/g	0.003±0.002	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.8±0.6	28±2	4.0±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.0006±0.0005	0.0003±0.0002
Radium-226	Bq/g	<0.00006	0.001±0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35420 09/23/2011 KELLY BAY - LT04 - SP 8-1 *FISH BONES*
35421 09/23/2011 KELLY BAY - LT05 - SP 8-1 *FISH FLESH*
35422 09/23/2011 KELLY BAY - LT05 - SP 8-1 *FISH BONES*

Analyte	Units	35420	35421	35422
Inorganic Chemistry				
Mercury	ug/g	0.06±0.02	0.16±0.04	0.10±0.03
ICP				
Aluminum	ug/g	0.5±0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.10±0.02	0.04±0.01	0.09±0.02
Barium	ug/g	1.3±0.04	<0.01	1.3±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.002±0.002	0.01±0.01
Copper	ug/g	0.19±0.06	0.27±0.05	0.17±0.06
Iron	ug/g	5.9±2	3.5±1	5.5±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	3.8±0.4	0.09±0.04	3.7±0.4
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.07±0.02	<0.01	0.06±0.02
Selenium	ug/g	0.14±0.05	0.14±0.04	0.13±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	129±2	0.17±0.06	109±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.27±0.07	0.08±0.02	0.22±0.06
Uranium	ug/g	<0.01	<0.001	0.02±0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	26±2	9.1±0.8	23±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0008	<0.00005	<0.001
Thorium-230	Bq/g	<0.001	<0.0001	<0.002

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35423 09/23/2011 KELLY BAY - LT06 - SP 8-1 *FISH FLESH*
35424 09/23/2011 KELLY BAY - LT06 - SP 8-1 *FISH BONES*
35425 09/23/2011 KELLY BAY - LT07 - SP 8-1 *FISH FLESH*

Analyte	Units	35423	35424	35425
Inorganic Chemistry				
Mercury	ug/g	0.16±0.04	0.08±0.03	0.17±0.04
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.03±0.01	0.10±0.02	0.03±0.01
Barium	ug/g	<0.01	0.92±0.04	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	<0.002
Copper	ug/g	0.22±0.04	0.18±0.06	0.30±0.05
Iron	ug/g	2.6±1	3.6±1	2.9±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.15±0.05	2.5±0.3	0.10±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.07±0.02	<0.01
Selenium	ug/g	0.16±0.04	0.14±0.05	0.20±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.19±0.06	95±2	0.10±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.21±0.06	0.07±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	7.6±0.8	25±2	3.3±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0004±0.0002	<0.0005	0.0003±0.0002
Radium-226	Bq/g	<0.00006	0.002±0.002	0.0001±0.00009
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35426 09/23/2011 KELLY BAY - LT07 - SP 8-1 *FISH BONES*
35427 09/23/2011 KELLY BAY - LW08 - SP 8-1 *FISH FLESH*
35428 09/23/2011 KELLY BAY - LW08 - SP 8-1 *FISH BONES*

Analyte	Units	35426	35427	35428
Inorganic Chemistry				
Mercury	ug/g	0.10±0.03	0.08±0.03	0.02±0.01
ICP				
Aluminum	ug/g	<0.5	<0.5	1.4±1
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.10±0.02	0.03±0.01	0.02±0.02
Barium	ug/g	1.2±0.04	0.01±0.01	6.6±0.09
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.003±0.002	0.01±0.01
Copper	ug/g	0.10±0.04	0.17±0.06	0.13±0.05
Iron	ug/g	2.7±1	2.9±1	4.0±1
Lead	ug/g	<0.01	0.002±0.002	0.02±0.01
Manganese	ug/g	2.7±0.3	0.14±0.05	15±0.7
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.06±0.02	<0.01	0.07±0.02
Selenium	ug/g	0.15±0.05	0.80±0.08	0.59±0.1
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	111±2	0.34±0.08	191±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.31±0.07	0.07±0.02	0.21±0.06
Uranium	ug/g	<0.01	<0.001	0.01±0.01
Vanadium	ug/g	<0.05	<0.02	0.14±0.08
Zinc	ug/g	21±2	4.4±0.6	24±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0008±0.0005	0.0009±0.0005	0.003±0.002
Radium-226	Bq/g	0.001±0.001	0.0001±0.00009	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35429 09/23/2011 KELLY BAY - LW09 - SP 8-1 *FISH FLESH*
35430 09/23/2011 KELLY BAY - LW09 - SP 8-1 *FISH BONES*
35431 09/23/2011 KELLY BAY - LW10 - SP 8-1 *FISH FLESH*

Analyte	Units	35429	35430	35431
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.01±0.01	0.01±0.01
ICP				
Aluminum	ug/g	<0.5	2.0±1	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.03±0.01	0.02±0.02	0.03±0.01
Barium	ug/g	0.05±0.04	6.4±0.09	0.89±0.03
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	0.3±0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.02±0.01	<0.002
Copper	ug/g	0.14±0.06	0.03±0.02	0.19±0.04
Iron	ug/g	1.9±1	6.3±2	3.1±1
Lead	ug/g	<0.002	0.02±0.01	<0.002
Manganese	ug/g	0.24±0.07	28±1	0.10±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01±0.01	0.10±0.02	<0.01
Selenium	ug/g	0.66±0.07	0.55±0.1	1.1±0.09
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.0±0.6	179±2	0.21±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.25±0.06	0.07±0.02
Uranium	ug/g	0.001±0.001	0.02±0.01	0.002±0.001
Vanadium	ug/g	<0.02	0.25±0.1	<0.02
Zinc	ug/g	4.9±0.6	25±2	3.7±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.004±0.002	<0.001
Polonium-210	Bq/g	0.0020±0.0009	0.007±0.003	0.0014±0.0007
Radium-226	Bq/g	0.0001±0.0001	0.002±0.002	<0.00008
Thorium-230	Bq/g	<0.0002	<0.002	<0.0002

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35432 09/23/2011 KELLY BAY - LW10 - SP 8-1 *FISH BONES*
35433 09/24/2011 GREEN BAY - LT01 - SP 3-1 *FISH FLESH*
35434 09/24/2011 GREEN BAY - LT01 - SP 3-1 *FISH BONES*

Analyte	Units	35432	35433	35434
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.16±0.04	0.10±0.03
ICP				
Aluminum	ug/g	1.4±1	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.03±0.01	0.07±0.02
Barium	ug/g	4.3±0.08	0.69±0.02	1.3±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.004±0.002	0.02±0.01
Copper	ug/g	0.04±0.03	0.55±0.07	0.04±0.03
Iron	ug/g	8.7±2	8.0±2	5.8±2
Lead	ug/g	0.02±0.01	<0.002	<0.01
Manganese	ug/g	20±0.9	0.08±0.04	1.5±0.3
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	<0.01	0.11±0.02
Selenium	ug/g	0.71±0.1	0.37±0.06	0.25±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	166±2	0.45±0.09	152±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.30±0.07	0.08±0.02	0.30±0.07
Uranium	ug/g	0.01±0.01	<0.001	<0.01
Vanadium	ug/g	0.18±0.09	<0.02	<0.05
Zinc	ug/g	27±2	5.0±0.6	21±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.005±0.002	0.0002±0.0002	0.0006±0.0005
Radium-226	Bq/g	<0.0009	<0.00006	<0.0009
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35435 09/24/2011 GREEN BAY - LT01 - SP 5-1 *FISH FLESH*
35436 09/24/2011 GREEN BAY - LT01 - SP 5-1 *FISH BONES*
35437 09/24/2011 GREEN BAY - LT02 - SP 5-1 *FISH FLESH*

Analyte	Units	35435	35436	35437
Inorganic Chemistry				
Mercury	ug/g	0.04±0.02	0.02±0.01	0.10±0.03
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05±0.01	0.06±0.02	0.01±0.01
Barium	ug/g	0.02±0.01	1.5±0.05	0.63±0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.02±0.01	0.003±0.002
Copper	ug/g	0.32±0.05	0.10±0.04	0.32±0.05
Iron	ug/g	3.0±1	4.2±1	5.0±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.10±0.04	1.5±0.3	0.14±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01±0.01	0.10±0.02	<0.01
Selenium	ug/g	0.35±0.05	0.28±0.07	0.33±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.58±0.1	170±2	1.4±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.28±0.07	0.07±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.7±0.6	26±2	13±3
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.001±0.0006	0.0004±0.0002
Radium-226	Bq/g	<0.00007	<0.0008	<0.00006
Thorium-230	Bq/g	<0.0001	<0.001	<0.0001

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35438 09/24/2011 GREEN BAY - LT02 - SP 5-1 *FISH BONES*
35439 09/24/2011 GREEN BAY - LT01 - ANG 3-1 *FISH FLESH*
35440 09/24/2011 GREEN BAY - LT01 - ANG 3-1 *FISH BONES*

Analyte	Units	35438	35439	35440
Inorganic Chemistry				
Mercury	ug/g	0.08±0.03	0.09±0.03	0.06±0.02
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.09±0.01	0.06±0.02
Barium	ug/g	1.6±0.05	0.01±0.01	1.2±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.02±0.01
Copper	ug/g	0.08±0.04	0.28±0.05	0.10±0.04
Iron	ug/g	5.8±2	3.7±1	5.9±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	3.4±0.4	0.09±0.04	2.5±0.3
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12±0.02	<0.01	0.10±0.02
Selenium	ug/g	0.29±0.07	0.35±0.05	0.28±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	189±2	0.34±0.08	163±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.28±0.07	0.07±0.02	0.29±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	27±2	4.1±0.6	20±2
Radio Chemistry				
Lead-210	Bq/g	0.004±0.002	<0.001	0.003±0.002
Polonium-210	Bq/g	0.001±0.0006	<0.0002	<0.0005
Radium-226	Bq/g	<0.001	<0.00007	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35441 09/24/2011 GREEN BAY - LT02 - ANG 3-1 *FISH FLESH*
35442 09/24/2011 GREEN BAY - LT02 - ANG 3-1 *FISH BONES*
35443 09/25/2011 GREEN BAY - LW01/LW02 - SP 7-1 COMPOSITE *FISH FLESH*

Analyte	Units	35441	35442	35443
Inorganic Chemistry				
Mercury	ug/g	0.08±0.03	0.05±0.02	<0.01
ICP				
Aluminum	ug/g	<0.5	0.5±0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05±0.01	0.07±0.02	0.08±0.01
Barium	ug/g	<0.01	1.7±0.05	0.71±0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.006±0.002	0.02±0.01	<0.002
Copper	ug/g	0.71±0.08	0.11±0.05	0.22±0.04
Iron	ug/g	6.8±2	5.8±2	1.4±0.8
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.09±0.04	3.7±0.4	0.10±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.11±0.02	<0.01
Selenium	ug/g	0.37±0.06	0.32±0.07	0.26±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.23±0.06	151±2	0.72±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.34±0.08	0.08±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.8±0.6	28±2	5.8±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.003±0.002	<0.001
Polonium-210	Bq/g	0.0002±0.0002	<0.0005	0.0058±0.002
Radium-226	Bq/g	0.0002±0.0001	<0.001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35444 09/25/2011 GREEN BAY - LW01/LW02 - SP 7-1 COMPOSITE *FISH BONES*
35445 09/25/2011 GREEN BAY - LW03/LW04 - SP 7-1 COMPOSITE *FISH FLESH*
35446 09/25/2011 GREEN BAY - LW03/LW04 - SP 7-1 COMPOSITE *FISH BONES*

Analyte	Units	35444	35445	35446
Inorganic Chemistry				
Mercury	ug/g	<0.01	<0.01	<0.01
ICP				
Aluminum	ug/g	0.6±0.6	<0.5	0.8±0.7
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.04±0.01	0.05±0.02
Barium	ug/g	3.9±0.07	0.68±0.02	4.9±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.02±0.01
Copper	ug/g	0.10±0.04	0.19±0.04	0.07±0.04
Iron	ug/g	3.6±1	2.0±1	5.3±2
Lead	ug/g	0.02±0.01	<0.002	0.03±0.02
Manganese	ug/g	5.5±0.5	0.11±0.05	7.4±0.5
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	<0.01	0.09±0.02
Selenium	ug/g	0.19±0.06	0.28±0.05	0.33±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	296±3	0.42±0.09	266±3
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.31±0.07	0.08±0.02	0.24±0.06
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	0.08±0.06	<0.02	0.12±0.08
Zinc	ug/g	37±2	5.1±0.6	29±2
Radio Chemistry				
Lead-210	Bq/g	0.005±0.002	<0.001	0.012±0.004
Polonium-210	Bq/g	0.008±0.004	0.0038±0.002	0.019±0.007
Radium-226	Bq/g	<0.0009	0.00009±0.00009	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35447 09/25/2011 GREEN BAY - LW05/LW06 - SP 7-1 COMPOSITE *FISH FLESH*
35448 09/25/2011 GREEN BAY - LW05/LW06 - SP 7-1 COMPOSITE *FISH BONES*
35449 09/25/2011 GREEN BAY - LW07/LW08 - SP 7-1 COMPOSITE *FISH FLESH*

Analyte	Units	35447	35448	35449
Inorganic Chemistry				
Mercury	ug/g	<0.01	<0.01	<0.01
ICP				
Aluminum	ug/g	<0.5	0.9±0.8	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.04±0.01	0.04±0.02	0.07±0.01
Barium	ug/g	0.66±0.02	3.6±0.07	0.06±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.01±0.01	0.003±0.002
Copper	ug/g	0.27±0.05	0.16±0.05	0.20±0.04
Iron	ug/g	3.3±1	6.0±2	2.5±1
Lead	ug/g	0.002±0.002	0.04±0.02	<0.002
Manganese	ug/g	0.11±0.05	9.9±0.6	0.17±0.06
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.08±0.02	<0.01
Selenium	ug/g	0.27±0.05	0.23±0.06	0.27±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.2±0.1	260±3	2.2±0.2
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.27±0.07	0.07±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	0.11±0.07	<0.02
Zinc	ug/g	6.5±0.7	36±2	6.2±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.003±0.002	<0.001
Polonium-210	Bq/g	0.0080±0.003	0.011±0.004	0.0055±0.002
Radium-226	Bq/g	<0.00006	0.003±0.002	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35450 09/25/2011 GREEN BAY - LW07/LW08 - SP 7-1 COMPOSITE *FISH BONES*
35451 09/25/2011 GREEN BAY - LW09/LW10 - SP 7-1 COMPOSITE *FISH FLESH*
35452 09/25/2011 GREEN BAY - LW09/LW10 - SP 7-1 COMPOSITE *FISH BONES*

Analyte	Units	35450	35451	35452
Inorganic Chemistry				
Mercury	ug/g	<0.01	<0.01	<0.01
ICP				
Aluminum	ug/g	0.8±0.7	<0.5	0.8±0.7
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.06±0.02	0.04±0.01	0.04±0.02
Barium	ug/g	4.0±0.07	0.02±0.01	4.3±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	3.4±0.8	<0.1	<0.2
Cobalt	ug/g	0.03±0.01	0.004±0.002	0.02±0.01
Copper	ug/g	0.08±0.04	0.27±0.05	0.04±0.03
Iron	ug/g	58±5	3.2±1	15±3
Lead	ug/g	0.04±0.02	<0.002	0.04±0.02
Manganese	ug/g	7.3±0.5	0.12±0.05	8.2±0.6
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.31±0.02	0.02±0.01	0.15±0.02
Selenium	ug/g	0.21±0.06	0.31±0.05	0.23±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	252±3	0.51±0.09	301±3
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.28±0.07	0.08±0.02	0.27±0.07
Uranium	ug/g	<0.01	0.005±0.002	<0.01
Vanadium	ug/g	0.15±0.09	<0.02	0.12±0.08
Zinc	ug/g	38±2	5.7±0.7	42±3
Radio Chemistry				
Lead-210	Bq/g	0.003±0.002	<0.001	0.003±0.002
Polonium-210	Bq/g	0.011±0.004	0.0049±0.002	0.010±0.004
Radium-226	Bq/g	<0.0009	<0.00007	<0.0006
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35453 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT01 - ANG 1-1 *FISH FLESH*
35454 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT01 - ANG 1-1 *FISH BONES*
35455 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT02 - ANG 1-1 *FISH FLESH*

Analyte	Units	35453	35454	35455
Inorganic Chemistry				
Mercury	ug/g	0.09±0.03	0.07±0.03	0.10±0.03
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.10±0.01	0.09±0.02	0.13±0.01
Barium	ug/g	0.01±0.01	0.85±0.04	0.01±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	0.1±0.1	<0.2	0.2±0.1
Cobalt	ug/g	0.003±0.002	0.02±0.01	<0.002
Copper	ug/g	0.24±0.05	0.02±0.02	0.28±0.05
Iron	ug/g	2.2±1	6.4±2	3.4±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.06±0.03	1.2±0.2	0.10±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.05±0.01	0.13±0.02	0.03±0.01
Selenium	ug/g	0.19±0.04	0.16±0.05	0.26±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.11±0.05	40±1	0.10±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06±0.02	0.28±0.07	0.07±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.2±0.5	16±2	3.4±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0004±0.0002	0.0005±0.0005	<0.0002
Radium-226	Bq/g	<0.00005	<0.005	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35456 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT02 - ANG 1-1 *FISH BONES*
35457 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT03 - ANG 1-1 *FISH FLESH*
35458 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT03 - ANG 1-1 *FISH BONES*

Analyte	Units	35456	35457	35458
Inorganic Chemistry				
Mercury	ug/g	0.03±0.02	0.12±0.03	0.06±0.02
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.11±0.02	0.07±0.01	0.15±0.02
Barium	ug/g	0.67±0.03	<0.01	0.86±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.002±0.002	0.02±0.01
Copper	ug/g	0.05±0.03	0.22±0.04	0.07±0.04
Iron	ug/g	3.8±1	2.1±1	3.1±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	1.5±0.3	0.06±0.03	1.7±0.3
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.11±0.02	0.02±0.01	0.12±0.02
Selenium	ug/g	0.20±0.06	0.21±0.04	0.17±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	39±1	0.04±0.03	39±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.32±0.07	0.07±0.02	0.25±0.06
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	20±2	3.2±0.5	18±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0008	<0.00007	<0.0009
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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Jan 20, 2012

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35459 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT04 - ANG 1-1 *FISH FLESH*
35460 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT04 - ANG 1-1 *FISH BONES*
35461 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT05 - ANG 1-1 *FISH FLESH*

Analyte	Units	35459	35460	35461
Inorganic Chemistry				
Mercury	ug/g	0.18±0.04	0.13±0.03	0.30±0.05
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.03±0.01	0.04±0.02	0.06±0.01
Barium	ug/g	<0.01	1.2±0.04	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.002±0.002
Copper	ug/g	0.12±0.03	<0.02	0.25±0.05
Iron	ug/g	0.7±0.6	3.7±1	1.7±0.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.05±0.03	1.6±0.3	0.07±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.12±0.02	0.03±0.01
Selenium	ug/g	0.36±0.05	0.21±0.06	0.22±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.04±0.03	46±1	0.05±0.03
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.26±0.07	0.07±0.02
Uranium	ug/g	<0.001	<0.01	0.004±0.002
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	2.7±0.5	21±2	2.8±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.0006±0.0005	0.0002±0.0002
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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SRC ANALYTICAL

Jan 20, 2012

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35462 09/26/2011 WOLLASTON LAKE / COCHRANE RIVER - LT05 - ANG 1-1 *FISH BONES*
35463 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW01 - SP 6-1 *FISH FLESH*
35464 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW01 - SP 6-1 *FISH BONES*

Analyte	Units	35462	35463	35464
Inorganic Chemistry				
Mercury	ug/g	0.14±0.04	0.07±0.03	0.06±0.02
ICP				
Aluminum	ug/g	<0.5	<0.5	2.8±2
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.06±0.02	0.14±0.01	0.13±0.02
Barium	ug/g	0.82±0.04	0.03±0.01	9.0±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.008±0.002	0.02±0.01
Copper	ug/g	<0.02	0.20±0.04	0.03±0.02
Iron	ug/g	5.4±2	3.3±1	5.1±2
Lead	ug/g	<0.01	<0.002	0.04±0.02
Manganese	ug/g	1.8±0.3	0.06±0.03	10±0.6
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.13±0.02	0.02±0.01	0.12±0.02
Selenium	ug/g	0.19±0.06	0.53±0.07	0.46±0.09
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	42±1	0.18±0.06	113±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.37±0.08	0.06±0.02	0.33±0.08
Uranium	ug/g	<0.01	0.002±0.001	0.07±0.03
Vanadium	ug/g	<0.05	<0.02	0.18±0.09
Zinc	ug/g	21±2	3.0±0.5	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0005±0.0005	0.0006±0.0003	0.002±0.001
Radium-226	Bq/g	0.002±0.002	<0.00006	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35465 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW02 - SP 6-1 *FISH FLESH*
35466 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW02 - SP 6-1 *FISH BONES*
35467 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW03 - SP 6-1 *FISH FLESH*

Analyte	Units	35465	35466	35467
Inorganic Chemistry				
Mercury	ug/g	0.05±0.02	0.04±0.02	0.03±0.02
ICP				
Aluminum	ug/g	<0.5	3.9±2	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.18±0.01	0.13±0.02	0.07±0.01
Barium	ug/g	0.09±0.01	10±0.1	0.05±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.02±0.01	0.002±0.002
Copper	ug/g	0.12±0.03	0.04±0.03	0.18±0.04
Iron	ug/g	3.0±1	6.3±2	2.2±1
Lead	ug/g	<0.002	0.05±0.02	<0.002
Manganese	ug/g	0.23±0.06	11±0.6	0.14±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.12±0.02	<0.01
Selenium	ug/g	0.47±0.06	0.42±0.09	0.31±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.3±0.1	112±2	1.1±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.27±0.07	0.08±0.02
Uranium	ug/g	0.002±0.001	0.12±0.03	0.002±0.001
Vanadium	ug/g	<0.02	0.26±0.1	<0.02
Zinc	ug/g	7.8±0.8	23±2	4.7±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0008±0.0004	0.002±0.001	0.0032±0.001
Radium-226	Bq/g	<0.00006	0.003±0.002	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35468 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW03 - SP 6-1 *FISH BONES*
35469 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW01 - SP 8-1 *FISH FLESH*
35470 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW01 - SP 8-1 *FISH BONES*

Analyte	Units	35468	35469	35470
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.06±0.02	0.03±0.02
ICP				
Aluminum	ug/g	0.9±0.8	<0.5	1.8±1
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.09±0.02	0.02±0.01	0.04±0.02
Barium	ug/g	3.3±0.07	0.57±0.02	4.6±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.005±0.002	0.03±0.01
Copper	ug/g	0.07±0.04	0.11±0.03	0.03±0.02
Iron	ug/g	7.6±2	1.8±0.9	6.4±2
Lead	ug/g	0.02±0.01	<0.002	0.03±0.02
Manganese	ug/g	5.4±0.5	0.07±0.04	12±0.7
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	<0.01	0.12±0.02
Selenium	ug/g	0.26±0.07	0.23±0.04	0.22±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	95±2	0.08±0.04	89±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.29±0.07	0.07±0.02	0.26±0.07
Uranium	ug/g	0.04±0.02	0.002±0.001	0.17±0.04
Vanadium	ug/g	0.07±0.06	<0.02	0.09±0.07
Zinc	ug/g	43±3	3.0±0.5	34±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.007±0.003	0.0003±0.0002	0.002±0.001
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.003

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35471 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW02 - SP 8-1 *FISH FLESH*
35472 09/27/2011 WOLLASTON LAKE / COCHRANE RIVER - LW02 - SP 8-1 *FISH BONES*
35473 09/28/2011 ARMATAGE BAY - LT01 - SP 1-1 *FISH FLESH*

Analyte	Units	35471	35472	35473
Inorganic Chemistry				
Mercury	ug/g	0.05±0.02	0.02±0.01	0.04±0.02
ICP				
Aluminum	ug/g	<0.5	1.6±1	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.07±0.01	0.04±0.02	0.02±0.01
Barium	ug/g	0.04±0.01	3.2±0.07	0.01±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.008±0.002	0.02±0.01	0.002±0.002
Copper	ug/g	0.17±0.04	<0.02	0.34±0.05
Iron	ug/g	2.1±1	4.8±1	2.2±1
Lead	ug/g	<0.002	0.05±0.02	<0.002
Manganese	ug/g	0.17±0.06	5.1±0.4	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02±0.01	0.13±0.02	<0.01
Selenium	ug/g	0.28±0.05	0.21±0.06	0.26±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.68±0.1	114±2	0.25±0.07
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.30±0.07	0.08±0.02
Uranium	ug/g	0.001±0.001	0.04±0.02	<0.001
Vanadium	ug/g	<0.02	0.11±0.07	<0.02
Zinc	ug/g	5.1±0.6	38±2	4.7±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0008±0.0004	0.004±0.002	<0.0002
Radium-226	Bq/g	<0.000005	0.001±0.001	0.00009±0.00009
Thorium-230	Bq/g	<0.00001	0.002±0.002	<0.0002

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35474 09/28/2011 ARMATAGE BAY - LT01 - SP 1-1 *FISH BONES*
35475 09/28/2011 ARMATAGE BAY - LT01 - ANG 1-1 *FISH FLESH*
35476 09/28/2011 ARMATAGE BAY - LT01 - ANG 1-1 *FISH BONES*

Analyte	Units	35474	35475	35476
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.04±0.02	0.04±0.02
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.06±0.02	0.02±0.01	0.11±0.02
Barium	ug/g	1.8±0.05	0.60±0.02	1.3±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.01±0.01
Copper	ug/g	0.31±0.07	0.18±0.04	0.14±0.05
Iron	ug/g	5.1±2	1.8±0.9	6.3±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	3.7±0.4	0.09±0.04	2.4±0.3
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12±0.02	<0.01	0.11±0.02
Selenium	ug/g	0.22±0.06	0.22±0.04	0.27±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	121±2	0.18±0.06	102±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.30±0.07	0.06±0.02	0.32±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	25±2	2.5±0.5	19±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.0001±0.00009	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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35477 09/28/2011 ARMATAGE BAY - LT02 - ANG 1-1 *FISH FLESH*
35478 09/28/2011 ARMATAGE BAY - LT02 - ANG 1-1 *FISH BONES*
35479 09/28/2011 ARMATAGE BAY - LT03 - ANG 1-1 *FISH FLESH*

Analyte	Units	35477	35478	35479
Inorganic Chemistry				
Mercury	ug/g	0.09±0.03	0.05±0.02	0.04±0.02
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.03±0.02	0.03±0.01
Barium	ug/g	<0.01	1.6±0.05	0.02±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.004±0.002
Copper	ug/g	0.31±0.05	0.10±0.04	0.85±0.08
Iron	ug/g	3.2±1	7.3±2	5.8±2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.15±0.05	3.7±0.4	0.13±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.13±0.02	0.02±0.01
Selenium	ug/g	0.20±0.04	0.17±0.06	0.28±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.19±0.06	130±2	0.45±0.09
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.29±0.07	0.07±0.02
Uranium	ug/g	<0.001	<0.01	0.002±0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.5±0.7	27±2	5.4±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0002±0.0002	<0.0005	<0.0002
Radium-226	Bq/g	0.0003±0.0002	0.001±0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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35480 09/28/2011 ARMATAGE BAY - LT03 - ANG 1-1 *FISH BONES*
35481 09/28/2011 ARMATAGE BAY - LT04 - ANG 1-1 *FISH FLESH*
35482 09/28/2011 ARMATAGE BAY - LT04 - ANG 1-1 *FISH BONES*

Analyte	Units	35480	35481	35482
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.06±0.02	0.02±0.01
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.02±0.01	0.03±0.02
Barium	ug/g	2.1±0.05	0.03±0.02	2.3±0.06
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.02±0.01
Copper	ug/g	0.24±0.07	0.33±0.05	0.04±0.03
Iron	ug/g	5.1±2	2.1±1	4.5±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	4.6±0.4	0.10±0.04	4.8±0.4
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	<0.01	0.13±0.02
Selenium	ug/g	0.22±0.06	0.24±0.05	0.19±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	136±2	0.16±0.1	166±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.25±0.06	0.08±0.02	0.32±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	27±2	3.3±0.5	31±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.00007±0.00007	<0.0009
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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Jan 20, 2012

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35483 09/28/2011 ARMATAGE BAY - LW02 - SP 1-1 AND LW02 - SP 3-1 COMPOSITE *FISH FLESH*
35484 09/28/2011 ARMATAGE BAY - LW02 - SP 1-1 AND LW02 - SP 3-1 COMPOSITE *FISH BONES*
35485 09/28/2011 ARMATAGE BAY - LW02 - SP 6-1 *FISH FLESH*

Analyte	Units	35483	35484	35485
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	<0.01	0.02±0.01
ICP				
Aluminum	ug/g	<0.5	0.6±0.6	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.05±0.02	0.03±0.01
Barium	ug/g	0.15±0.01	7.7±0.1	0.57±0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.01±0.01	<0.002
Copper	ug/g	0.32±0.05	0.06±0.03	0.18±0.04
Iron	ug/g	2.4±1	4.7±1	1.6±0.9
Lead	ug/g	0.004±0.003	0.02±0.01	<0.002
Manganese	ug/g	0.55±0.1	18±0.8	0.08±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.03±0.01	0.09±0.02	<0.01
Selenium	ug/g	0.28±0.05	0.20±0.06	0.42±0.06
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	4.3±0.3	234±3	0.47±0.09
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.25±0.06	0.10±0.03
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	12±3	60±3	4.1±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0008±0.0004	0.002±0.001	<0.0002
Radium-226	Bq/g	<0.00008	0.001±0.001	<0.00007
Thorium-230	Bq/g	<0.0002	<0.002	<0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Please note that radionuclide detection limits for biological tissue samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally,

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some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

Results are reported on a "raw weight" basis.

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Jan 20, 2012

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35486 09/28/2011 ARMATAGE BAY - LW02 - SP 6-1 *FISH BONES*
35487 09/29/2011 ARMATAGE BAY - LW02 - SP 7-1 AND LW01 - SP 9-1 COMPOSITE *FISH FLESH*
35488 09/29/2011 ARMATAGE BAY - LW02 - SP 7-1 AND LW01 - SP 9-1 COMPOSITE *FISH BONES*

Analyte	Units	35486	35487	35488
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.02±0.01	0.01±0.01
ICP				
Aluminum	ug/g	<0.5	<0.5	0.9±0.8
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.10±0.02	0.02±0.01	0.02±0.02
Barium	ug/g	3.2±0.07	0.68±0.02	4.0±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.004±0.002	0.02±0.01
Copper	ug/g	0.05±0.03	0.21±0.04	0.04±0.03
Iron	ug/g	8.2±2	3.0±1	7.5±2
Lead	ug/g	<0.01	<0.002	0.02±0.01
Manganese	ug/g	4.5±0.4	0.12±0.05	30±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	<0.01	0.09±0.02
Selenium	ug/g	0.28±0.07	0.51±0.06	0.39±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	225±3	0.56±0.1	164±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22±0.06	0.07±0.02	0.25±0.06
Uranium	ug/g	<0.01	0.004±0.002	<0.01
Vanadium	ug/g	<0.05	<0.02	0.10±0.07
Zinc	ug/g	39±2	6.4±0.7	27±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001±0.0006	0.0022±0.001	0.007±0.003
Radium-226	Bq/g	<0.001	0.0001±0.00009	<0.0008
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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Jan 20, 2012

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35489 09/29/2011 ARMATAGE BAY - LW19 - SP 9-1 *FISH FLESH*
35490 09/29/2011 ARMATAGE BAY - LW19 - SP 9-1 *FISH BONES*
35491 09/29/2011 ARMATAGE BAY - LW20 AND LW21 - SP 9-1 COMPOSITE *FISH FLESH*

Analyte	Units	35489	35490	35491
Inorganic Chemistry				
Mercury	ug/g	0.05±0.02	0.02±0.01	0.02±0.01
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.06±0.01	0.11±0.02	0.01±0.01
Barium	ug/g	0.55±0.02	5.4±0.08	0.60±0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.005±0.002
Copper	ug/g	0.26±0.05	0.05±0.03	0.28±0.05
Iron	ug/g	2.1±1	6.5±2	4.4±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.11±0.05	11±0.6	0.14±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.15±0.02	0.05±0.01
Selenium	ug/g	0.29±0.05	0.23±0.06	0.52±0.07
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.25±0.07	314±3	0.33±0.08
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.25±0.06	0.08±0.02
Uranium	ug/g	0.002±0.001	<0.01	0.001±0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.9±0.6	52±3	6.1±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0005	0.0023±0.001
Radium-226	Bq/g	<0.00006	<0.001	0.00008±0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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Jan 20, 2012

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35492 09/29/2011 ARMATAGE BAY - LW20 AND LW21 - SP 9-1 COMPOSITE *FISH BONES*

Analyte	Units	35492
Inorganic Chemistry		
Mercury	ug/g	<0.01
ICP		
Aluminum	ug/g	1.6±1
Antimony	ug/g	<0.05
Arsenic	ug/g	0.03±0.02
Barium	ug/g	6.2±0.09
Beryllium	ug/g	<0.01
Boron	ug/g	<0.5
Cadmium	ug/g	<0.01
Chromium	ug/g	<0.2
Cobalt	ug/g	0.02±0.01
Copper	ug/g	0.05±0.03
Iron	ug/g	14±2
Lead	ug/g	0.03±0.02
Manganese	ug/g	39±1
Molybdenum	ug/g	<0.05
Nickel	ug/g	0.13±0.02
Selenium	ug/g	0.42±0.09
Silver	ug/g	<0.01
Strontium	ug/g	215±3
Thallium	ug/g	<0.02
Tin	ug/g	<0.02
Titanium	ug/g	0.33±0.08
Uranium	ug/g	<0.01
Vanadium	ug/g	0.13±0.08
Zinc	ug/g	48±3
Radio Chemistry		
Lead-210	Bq/g	0.003±0.002
Polonium-210	Bq/g	0.005±0.002
Radium-226	Bq/g	0.001±0.001
Thorium-230	Bq/g	<0.002

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Jan 20, 2012

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-10098

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value	
Aluminum	ug/g	1110	1220	
Aluminum	ug/g	1200	1210	
Aluminum	ug/g	1110	1130	
Aluminum	ug/g	1200	1100	
Aluminum	ug/g	1110	1270	
Arsenic	ug/g	7.34	5.33	*(1)
Arsenic	ug/g	6.88	5.01	
Arsenic	ug/g	7.34	6.37	
Arsenic	ug/g	6.88	5.90	
Cadmium	ug/g	0.302	0.264	
Cadmium	ug/g	0.290	0.268	
Cadmium	ug/g	0.302	0.277	
Cadmium	ug/g	0.290	0.275	
Chromium	ug/g	1.53	1.11	*(2)
Chromium	ug/g	1.61	1.24	
Chromium	ug/g	1.53	1.24	
Chromium	ug/g	1.61	1.26	
Chromium	ug/g	1.61	1.62	
Copper	ug/g	14.8	9.68	*(3)
Copper	ug/g	14.3	11.6	
Copper	ug/g	14.8	14.1	
Copper	ug/g	14.3	14.2	
Iron	ug/g	302	245	

QC Analysis	Units	Target Value	Obtained Value	
Iron	ug/g	302	245	
Iron	ug/g	302	288	
Iron	ug/g	302	284	
Iron	ug/g	302	294	
Lead	ug/g	0.270	0.332	
Lead	ug/g	0.225	0.356	*(4)
Lead	ug/g	0.270	0.189	
Lead	ug/g	0.225	0.209	
Lead-210	Bq/L	22.0	21.1	
Lead-210	Bq	0.644	0.548	
Lead-210	Bq/L	22.0	20.1	
Lead-210	Bq	6.64	6.72	
Lead-210	Bq/L	22.0	18.1	
Lead-210	Bq	0.322	0.126	*(5)
Lead-210	Bq/L	22.0	21.4	
Lead-210	Bq	0.644	0.487	
Lead-210	Bq/L	22.0	21.7	
Lead-210	Bq	1.61	1.58	
Lead-210	Bq/L	22.0	23.5	
Lead-210	Bq	1.61	1.66	
Manganese	ug/g	3.02	2.66	
Manganese	ug/g	2.87	2.73	
Manganese	ug/g	3.02	2.73	
Manganese	ug/g	2.87	2.81	
Mercury	ug/g	0.382	0.320	
Mercury	ug/g	0.382	0.277	
Mercury	ug/g	0.382	0.333	
Mercury	ug/g	0.382	0.421	
Mercury	ug/g	0.382	0.298	
Mercury	ug/g	0.382	0.282	
Nickel	ug/g	1.28	0.881	*(6)
Nickel	ug/g	1.16	1.01	
Nickel	ug/g	1.28	1.04	
Nickel	ug/g	1.16	1.15	
Nickel	ug/g	1.28	1.17	
Polonium-210	Bq/L	19.9	18.4	
Polonium-210	Bq	1.61	1.03	*(7)
Polonium-210	Bq/L	19.9	16.3	
Polonium-210	Bq	0.644	0.507	*(8)
Polonium-210	Bq/L	19.9	21.4	
Polonium-210	Bq	0.064	0.056	
Polonium-210	Bq/L	19.9	21.4	
Polonium-210	Bq	0.064	0.072	
Polonium-210	Bq/L	19.9	19.5	
Polonium-210	Bq	1.61	1.66	

QC Analysis	Units	Target Value	Obtained Value
Polonium-210	Bq/L	19.9	16.5
Polonium-210	Bq	0.644	0.732
Radium-226	Bq/L	20.6	20.1
Radium-226	Bq	0.427	0.412
Radium-226	Bq/L	20.6	19.7
Radium-226	Bq	2.13	1.94
Radium-226	Bq/L	20.6	19.2
Radium-226	Bq	0.043	0.047
Selenium	ug/g	3.63	2.74
Selenium	ug/g	3.70	2.67
Selenium	ug/g	3.63	3.37
Selenium	ug/g	3.70	3.15
Silver	ug/g	0.0240	0.0210
Silver	ug/g	0.0250	0.0248
Silver	ug/g	0.0240	0.0238
Silver	ug/g	0.0250	0.0247
Thorium-230	Bq/L	24.0	24.7
Thorium-230	Bq/L	24.0	23.8
Thorium-230	Bq/L	24.0	24.8
Thorium-230	Bq/L	24.0	23.1
Thorium-232	Bq	0.216	0.219
Thorium-232	Bq	0.216	0.230
Thorium-232	Bq	0.216	0.248
Thorium-232	Bq	0.216	0.168
Zinc	ug/g	46.5	45.1
Zinc	ug/g	45.4	48.6
Zinc	ug/g	46.5	45.0
Zinc	ug/g	46.5	42.7
Zinc	ug/g	45.4	46.8

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.05	<0.05
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01

Duplicate Analysis	Units	First Result	Second Result	
Silver	ug/g	<0.01	<0.01	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	1.4	1.4	
Aluminum	ug/g	6	<5	
Arsenic	ug/g	<0.2	<0.2	
Arsenic	ug/g	0.02	0.02	
Arsenic	ug/g	0.07	0.04	
Arsenic	ug/g	0.03	0.02	
Arsenic	ug/g	0.02	0.02	
Arsenic	ug/g	0.10	0.08	
Arsenic	ug/g	0.03	0.03	
Arsenic	ug/g	0.06	0.05	
Boron	ug/g	<0.5	<0.5	
Boron	ug/g	<0.5	<0.5	
Boron	ug/g	<0.5	<0.5	
Boron	ug/g	<0.2	<0.2	
Boron	ug/g	<0.2	<0.2	
Boron	ug/g	<0.2	<0.2	
Boron	ug/g	<0.5	<0.5	
Boron	ug/g	<5	<5	
Barium	ug/g	1.0	0.4	
Barium	ug/g	6.6	6.1	
Barium	ug/g	0.05	0.69	*(9)
Barium	ug/g	<0.01	<0.01	
Barium	ug/g	0.61	0.03	*(10)
Barium	ug/g	1.6	1.4	
Barium	ug/g	0.82	0.69	
Barium	ug/g	3.2	4.2	
Barium	ug/g	0.02	0.04	
Beryllium	ug/g	<0.01	<0.01	
Beryllium	ug/g	<0.01	<0.01	
Beryllium	ug/g	<0.01	<0.01	
Beryllium	ug/g	<0.002	<0.002	
Beryllium	ug/g	<0.002	<0.002	
Beryllium	ug/g	<0.002	<0.002	
Beryllium	ug/g	<0.01	<0.01	
Beryllium	ug/g	<0.05	<0.05	
Cadmium	ug/g	<0.05	<0.05	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.002	<0.002	

Duplicate Analysis	Units	First Result	Second Result	
Cadmium	ug/g	<0.002	<0.002	
Cadmium	ug/g	<0.002	<0.002	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	<0.002	<0.002	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	<0.002	<0.002	
Cobalt	ug/g	0.003	<0.002	
Cobalt	ug/g	0.002	0.002	
Cobalt	ug/g	0.01	0.01	
Cobalt	ug/g	<0.05	<0.05	
Chromium	ug/g	<2	<2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Copper	ug/g	<0.02	0.03	
Copper	ug/g	0.08	0.11	
Copper	ug/g	0.05	0.04	
Copper	ug/g	0.33	0.34	
Copper	ug/g	0.43	0.14	*(11)
Copper	ug/g	0.22	0.24	
Copper	ug/g	0.13	0.14	
Copper	ug/g	2.6	1.6	
Iron	ug/g	44	30	
Iron	ug/g	4.0	5.6	
Iron	ug/g	2.1	2.1	
Iron	ug/g	6.0	1.9	
Iron	ug/g	2.1	2.0	
Iron	ug/g	5.4	3.8	
Iron	ug/g	5.8	8.0	
Iron	ug/g	8.2	5.9	
Mercury	ug/g	0.01	0.01	
Mercury	ug/g	0.12	0.13	
Mercury	ug/g	0.07	0.05	
Mercury	ug/g	0.14	0.13	
Mercury	ug/g	0.01	0.02	
Mercury	ug/g	0.07	0.09	
Mercury	ug/g	0.01	0.01	
Manganese	ug/g	4.5	6.4	

Duplicate Analysis	Units	First Result	Second Result
Manganese	ug/g	1.8	1.5
Manganese	ug/g	3.4	2.8
Manganese	ug/g	0.10	0.15
Manganese	ug/g	0.24	0.09
Manganese	ug/g	0.06	0.06
Manganese	ug/g	15	14
Manganese	ug/g	0.6	<0.5
Molybdenum	ug/g	<0.5	<0.5
Molybdenum	ug/g	<0.05	<0.05
Molybdenum	ug/g	<0.02	<0.02
Molybdenum	ug/g	<0.02	<0.02
Molybdenum	ug/g	<0.02	<0.02
Molybdenum	ug/g	<0.05	<0.05
Molybdenum	ug/g	<0.05	<0.05
Molybdenum	ug/g	<0.05	<0.05
Nickel	ug/g	0.01	<0.01
Nickel	ug/g	0.12	0.09
Nickel	ug/g	0.13	0.12
Nickel	ug/g	0.10	0.12
Nickel	ug/g	<0.01	<0.01
Nickel	ug/g	0.01	<0.01
Nickel	ug/g	0.02	<0.01
Nickel	ug/g	0.07	0.05
Nickel	ug/g	<0.2	<0.2
Lead	ug/g	0.34	<0.05
Lead	ug/g	0.02	0.02
Lead	ug/g	<0.002	<0.002
Lead	ug/g	<0.002	<0.002
Lead	ug/g	<0.002	<0.002
Lead	ug/g	<0.01	<0.01
Lead	ug/g	<0.01	<0.01
Lead	ug/g	<0.01	<0.01
Lead-210	Bq/g	0.004	0.002
Lead-210	Bq/g	<0.002	<0.002
Lead-210	Bq/g	<0.002	0.003
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	49	47
Lead-210	Bq/g	0.03	0.02
Lead-210	Bq/g	<0.02	<0.02
Polonium-210	Bq/g	<0.0005	<0.0005
Polonium-210	Bq/g	0.0007	<0.0005
Polonium-210	Bq/g	0.0024	0.0020
Polonium-210	Bq/g	0.0025	0.0022

Duplicate Analysis	Units	First Result	Second Result	
Polonium-210	Bq/g	<0.0005	0.0006	
Polonium-210	Bq/g	<0.0002	0.0004	
Polonium-210	Bq/g	<0.0002	<0.0002	
Polonium-210	Bq/g	0.009	<0.005	
Polonium-210	Bq/g	<0.01	<0.01	
Polonium-210	Bq/g	<0.005	<0.005	
Radium-226	Bq/g	0.00006	0.0002	
Radium-226	Bq/g	<0.0009	<0.0009	
Radium-226	Bq/g	0.001	<0.001	
Radium-226	Bq/g	<0.001	<0.001	
Radium-226	Bq/g	<0.001	0.004	
Radium-226	Bq/g	0.002	<0.001	
Radium-226	Bq/g	0.001	<0.0009	
Radium-226	Bq/g	<0.0009	0.002	
Antimony	ug/g	<0.05	<0.05	
Antimony	ug/g	<0.5	<0.5	
Antimony	ug/g	<0.02	<0.02	
Antimony	ug/g	<0.02	<0.02	
Antimony	ug/g	<0.02	<0.02	
Antimony	ug/g	<0.05	<0.05	
Antimony	ug/g	<0.05	<0.05	
Antimony	ug/g	<0.05	<0.05	
Selenium	ug/g	0.18	0.20	
Selenium	ug/g	0.29	0.30	
Selenium	ug/g	0.28	0.28	
Selenium	ug/g	0.21	0.21	
Selenium	ug/g	0.66	0.66	
Selenium	ug/g	0.24	0.24	
Selenium	ug/g	0.59	0.63	
Selenium	ug/g	<0.2	<0.2	
Tin	ug/g	<0.2	<0.2	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Strontium	ug/g	224	271	
Strontium	ug/g	42	36	
Strontium	ug/g	189	155	
Strontium	ug/g	0.24	0.20	
Strontium	ug/g	0.04	0.06	
Strontium	ug/g	1.0	0.30	*(12)
Strontium	ug/g	0.16	1.3	*(13)
Strontium	ug/g	191	167	

Duplicate Analysis	Units	First Result	Second Result
Strontium	ug/g	<0.5	<0.5
Thorium-230	Bq/g	7.7	6.5
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	0.04	<0.02
Thorium-230	Bq/g	<0.002	<0.001
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.0001	<0.0001
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.0006	<0.0006
Titanium	ug/g	0.3	0.2
Titanium	ug/g	0.08	0.07
Titanium	ug/g	0.20	0.21
Titanium	ug/g	0.28	0.26
Titanium	ug/g	0.08	0.08
Titanium	ug/g	0.07	0.06
Titanium	ug/g	0.37	0.24
Titanium	ug/g	0.22	0.27
Thallium	ug/g	<0.02	<0.02
Thallium	ug/g	<0.02	<0.02
Thallium	ug/g	<0.02	<0.02
Thallium	ug/g	<0.01	<0.01
Thallium	ug/g	<0.01	<0.01
Thallium	ug/g	<0.01	<0.01
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.02	<0.02
Uranium	ug/g	0.01	0.01
Uranium	ug/g	0.02	<0.02
Uranium	ug/g	<0.001	0.001
Uranium	ug/g	<0.001	<0.001
Uranium	ug/g	0.001	<0.001
Uranium	ug/g	<0.01	<0.01
Uranium	ug/g	<0.01	<0.01
Uranium	ug/g	<0.01	<0.01
Vanadium	ug/g	<0.05	<0.05
Vanadium	ug/g	<0.05	<0.05
Vanadium	ug/g	<0.05	<0.05
Vanadium	ug/g	<0.02	<0.02
Vanadium	ug/g	<0.02	<0.02
Vanadium	ug/g	0.14	0.14
Vanadium	ug/g	<0.02	<0.02
Vanadium	ug/g	<0.5	<0.5
Zinc	ug/g	43	38
Zinc	ug/g	5	3

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This report was generated for samples included in SRC Group # 2011-10098 Jan 20, 2012

Duplicate Analysis	Units	First Result	Second Result	
Zinc	ug/g	3	4	
Zinc	ug/g	24	22	
Zinc	ug/g	3.2	3.6	
Zinc	ug/g	26	23	
Zinc	ug/g	3.2	3.1	
Zinc	ug/g	4.9	3.3	*(14)
Zinc	ug/g	21	18	
Zinc	ug/g	39	46	

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	Percent Recovery
Lead-210	93
Polonium-210	91
Thorium-230	91
Thorium-230	84

*(1)(2)(3)(4)(6) The Arsenic, Chromium, Copper, Lead and Nickel results for the quality control sample were outside the laboratory's specified limits. The data was reviewed and a number of samples were reanalyzed. Additional quality control measures in the same batch were within specified limits.

*(5) The Lead-210 result for the calibration check sample was outside the laboratory's specified limits. All additional quality control measures in the same batch were within specified limits therefore suspect problem was localized to the control (e.g., analyst error in preparation).

*(7)(8) The Polonium-210 results for the calibration check samples were outside the laboratory's specified limits. The data was reviewed and all additional quality control measures in the same batch were within specified limits.

*(9) - (14) The duplicate results for Barium, Copper, Strontium and Zinc were outside the laboratory's specified limits. The data was reviewed and the samples were reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-10099

Nov 28, 2011

SRC ANALYTICAL

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CanNorth
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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

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Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

35942 09/22/2011 KELLY BAY, STN 1 SAMPLE 1, PART 0-5 CM COMPOSITE *SEDIMENT*
35943 09/22/2011 KELLY BAY, STN 1 SAMPLE 2, PART 0-5 CM COMPOSITE *SEDIMENT*
35944 09/22/2011 KELLY BAY, STN 1 SAMPLE 3, PART 0-5 CM COMPOSITE *SEDIMENT*

Analyte	Units	35942	35943	35944
Inorganic Chemistry				
Organic carbon	%	2.81	5.08	2.08
Moisture	%	57.0	63.5	42.7
Gravel	wt %	0.14	<0.10	0.41
Coarse Sand	wt %	45.7	39.0	68.8
Fine Sand	wt %	27.1	32.9	20.4
Silt	wt %	21.9	18.8	7.33
Clay	wt %	5.12	9.32	3.16

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35945	**09/23/2011 KELLY BAY, STN 1 SAMPLE 4, PART 0-5 CM COMPOSITE *SEDIMENT***
35946	**09/23/2011 KELLY BAY, STN 1 SAMPLE 5, PART 0-5 CM COMPOSITE *SEDIMENT***
35947	**09/24/2011 GREEN BAY, STN 1 SAMPLE 1, PART 0-5 CM COMPOSITE *SEDIMENT***

Analyte	Units	35945	35946	35947
Inorganic Chemistry				
Organic carbon	%	2.75	2.35	1.41
Moisture	%	53.5	56.3	44.6
Gravel	wt %	<0.10	<0.10	0.10
Coarse Sand	wt %	50.1	67.9	81.7
Fine Sand	wt %	38.2	24.0	15.8
Silt	wt %	8.85	6.65	2.30
Clay	wt %	2.88	1.45	0.11

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Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35948	**09/24/2011 GREEN BAY, STN 1 SAMPLE 2, PART 0-5 CM COMPOSITE *SEDIMENT***
35949	**09/24/2011 GREEN BAY, STN 1 SAMPLE 3, PART 0-5 CM COMPOSITE *SEDIMENT***
35950	**09/24/2011 GREEN BAY, STN 1 SAMPLE 4, PART 0-5 CM COMPOSITE *SEDIMENT***

Analyte	Units	35948	35949	35950
Inorganic Chemistry				
Organic carbon	%	1.42	1.38	5.79
Moisture	%	38.8	41.9	66.4
Gravel	wt %	0.29	0.15	<0.10
Coarse Sand	wt %	82.9	88.3	55.3
Fine Sand	wt %	14.7	10.5	24.1
Silt	wt %	2.02	1.02	15.5
Clay	wt %	0.18	<0.10	5.14

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Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35951 09/24/2011 GREEN BAY, STN 1 SAMPLE 5, PART 0-5 CM COMPOSITE *SEDIMENT*
35952 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 1, PART 0-5 CM COMPOSITE *SEDIMENT*
35953 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 2, PART 0-5 CM COMPOSITE *SEDIMENT*

Analyte	Units	35951	35952	35953
Inorganic Chemistry				
Organic carbon	%	0.64	6.94	7.38
Moisture	%	26.6	69.3	73.1
Gravel	wt %	0.11	0.43	0.46
Coarse Sand	wt %	88.1	1.00	0.31
Fine Sand	wt %	11.2	5.14	9.48
Silt	wt %	0.46	65.3	64.3
Clay	wt %	0.13	28.1	25.5

Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35954 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 3, PART 0-5 CM COMPOSITE *SEDIMENT*

35955 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 4, PART 0-5 CM COMPOSITE *SEDIMENT*

35956 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 5, PART 0-5 CM COMPOSITE *SEDIMENT*

Analyte	Units	35954	35955	35956
Inorganic Chemistry				
Organic carbon	%	7.60	7.15	6.81
Moisture	%	66.4	72.9	69.5
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	0.48	0.19	0.36
Fine Sand	wt %	9.38	3.88	6.49
Silt	wt %	65.3	64.7	68.2
Clay	wt %	24.8	31.3	25.0

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35957	**09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 1, PART 0-5 CM COMPOSITE *SEDIMENT***
35958	**09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 2, PART 0-5 CM COMPOSITE *SEDIMENT***
35959	**09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 3, PART 0-5 CM COMPOSITE *SEDIMENT***

Analyte	Units	35957	35958	35959
Inorganic Chemistry				
Organic carbon	%	3.22	5.22	1.19
Moisture	%	65.1	68.5	42.6
Gravel	wt %	0.10	<0.10	0.13
Coarse Sand	wt %	31.2	24.7	63.8
Fine Sand	wt %	30.1	36.9	29.2
Silt	wt %	33.6	35.6	6.77
Clay	wt %	4.96	2.82	0.20

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Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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Nov 28, 2011

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35960 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 4, PART 0-5 CM COMPOSITE *SEDIMENT*
35961 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 5, PART 0-5 CM COMPOSITE *SEDIMENT*
35962 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, PART 0-5 CM COMPOSITE *SEDIMENT*

Analyte	Units	35960	35961	35962
Inorganic Chemistry				
Organic carbon	%	1.15	8.99	Not Reported
Moisture	%	40.1	74.2	71.0
Gravel	wt %	0.16	0.51	<0.10
Coarse Sand	wt %	70.8	18.5	0.25
Fine Sand	wt %	22.2	17.1	1.53
Silt	wt %	6.18	58.6	74.5
Clay	wt %	0.63	5.27	23.7

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35963	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, PART 0-5 CM COMPOSITE *SEDIMENT***
35964	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, PART 0-5 CM COMPOSITE *SEDIMENT***
35965	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 4, PART 0-5 CM COMPOSITE *SEDIMENT***

Analyte	Units	35963	35964	35965
Inorganic Chemistry				
Organic carbon	%	Not Reported	Not Reported	Not Reported
Moisture	%	76.9	75.2	69.5
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	0.31	0.24	0.28
Fine Sand	wt %	1.08	1.25	1.84
Silt	wt %	76.6	71.1	74.5
Clay	wt %	22.0	27.4	23.4

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Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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Nov 28, 2011

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35966 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 5, PART 0-5 CM COMPOSITE *SEDIMENT*
35967 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 1, PART 0-5 CM *SEDIMENT*
35968 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 2, PART 0-5 CM *SEDIMENT*

Analyte	Units	35966	35967	35968
Inorganic Chemistry				
Organic carbon	%	Not Reported	1.11	0.94
Moisture	%	80.2	30.9	36.0
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	1.48	9.95	6.17
Fine Sand	wt %	3.08	42.7	37.8
Silt	wt %	64.3	43.7	52.9
Clay	wt %	31.2	3.67	3.10

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Organic carbon was subcontracted to ALS Laboratories
Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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35969 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 3, PART 0-5 CM *SEDIMENT*
35970 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 4, PART 0-5 CM *SEDIMENT*
35971 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 5, PART 0-5 CM *SEDIMENT*

Analyte	Units	35969	35970	35971
Inorganic Chemistry				
Organic carbon	%	1.02	1.77	1.83
Moisture	%	35.5	54.3	52.8
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	11.3	5.68	0.99
Fine Sand	wt %	42.8	29.1	18.2
Silt	wt %	40.8	58.7	68.5
Clay	wt %	5.13	6.48	12.3

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Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

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Nov 28, 2011

CanNorth, Canada North Environmental Services Limited

35972 10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 1, PART 0-5 CM *SEDIMENT*
35973 10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 2, PART 0-5 CM *SEDIMENT*
35974 10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 3, PART 0-5 CM *SEDIMENT*

Analyte	Units	35972	35973	35974
Inorganic Chemistry				
Organic carbon	%	3.82	3.53	4.75
Moisture	%	60.7	60.8	71.5
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	0.69	0.23	0.33
Fine Sand	wt %	1.23	0.82	0.47
Silt	wt %	60.3	55.2	59.5
Clay	wt %	37.8	43.8	39.7

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Nov 28, 2011

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35975 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 4, PART 0-5 CM *SEDIMENT*
35976 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 5, PART 0-5 CM *SEDIMENT*

Analyte	Units	35975	35976
Inorganic Chemistry			
Organic carbon	%	4.52	4.01
Moisture	%	61.4	69.9
Gravel	wt %	<0.10	<0.10
Coarse Sand	wt %	0.18	0.13
Fine Sand	wt %	0.13	0.11
Silt	wt %	64.3	63.4
Clay	wt %	35.4	36.3

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Moisture was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

SRC Group # 2011-10100

Jan 06, 2012

SRC ANALYTICAL

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Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

This is a final report.

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Jan 06, 2012

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Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

35995 09/22/2011 KELLY BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
35996 09/22/2011 KELLY BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
35997 09/22/2011 KELLY BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35995	35996	35997
Inorganic Chemistry				
Loss on ignition	%	6.44±0.5	13.26±0.7	4.62±0.4
Moisture	%	79.05±0.7	87.81±0.7	81.96±0.7
ICP				
Aluminum	ug/g	6000±1000	4300±900	3100±700
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.4±0.1	1.9±0.1	1.0±0.1
Barium	ug/g	59±1	66±2	41±1
Beryllium	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Boron	ug/g	4±1	3±1	3±1
Cadmium	ug/g	<0.1	0.1±0.1	<0.1
Chromium	ug/g	10±2	8.2±2	6.7±2
Cobalt	ug/g	2.0±0.2	1.3±0.2	0.9±0.2
Copper	ug/g	2.8±1	2.3±1	1.4±0.8
Iron	ug/g	5400±300	8200±300	3600±200
Lead	ug/g	3.4±0.5	5.3±0.7	3.6±0.5
Manganese	ug/g	290±70	1200±100	340±80
Molybdenum	ug/g	1.3±0.3	4.7±0.6	1.5±0.4
Nickel	ug/g	4.6±0.2	3.9±0.2	2.8±0.2
Selenium	ug/g	0.2±0.1	0.3±0.2	0.2±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	25±3	22±3	18±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.5±0.1	0.3±0.1	0.6±0.1

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35995 09/22/2011 KELLY BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
35996 09/22/2011 KELLY BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
35997 09/22/2011 KELLY BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35995	35996	35997
ICP				
Titanium	ug/g	440±90	290±70	230±60
Uranium	ug/g	0.6±0.2	0.6±0.2	0.3±0.2
Vanadium	ug/g	12±1	11±0.9	8.2±0.8
Zinc	ug/g	24±3	18±3	12±2
Radio Chemistry				
Lead-210	Bq/g	0.06±0.04	0.27±0.09	0.07±0.04
Polonium-210	Bq/g	0.11±0.05	0.26±0.1	0.09±0.04
Radium-226	Bq/g	0.01±0.01	0.02±0.02	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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SRC ANALYTICAL

Jan 06, 2012

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35998 09/23/2011 KELLY BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
35999 09/23/2011 KELLY BAY, STN 1 SAMPLE 4D, SED 0-2 CM COMPOSITE *SEDIMENT*
36000 09/23/2011 KELLY BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35998	35999	36000
Inorganic Chemistry				
Loss on ignition	%	3.12±0.4	6.41±0.5	4.96±0.4
Moisture	%	75.58±0.7	81.74±0.7	78.69±0.7
ICP				
Aluminum	ug/g	2300±600	2400±600	2300±600
Antimony	ug/g	0.4±0.3	<0.2	<0.2
Arsenic	ug/g	0.7±0.1	0.8±0.1	0.9±0.1
Barium	ug/g	24±0.9	28±1	42±1
Beryllium	ug/g	<0.1	<0.1	0.1±0.1
Boron	ug/g	2±1	1±1	2±1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	3.5±1	4.5±1	4.1±1
Cobalt	ug/g	0.6±0.2	0.8±0.2	0.7±0.2
Copper	ug/g	0.7±0.6	1.0±0.7	1.0±0.7
Iron	ug/g	2200±200	2100±200	1300±100
Lead	ug/g	2.4±0.5	2.0±0.4	2.6±0.5
Manganese	ug/g	200±60	220±60	310±70
Molybdenum	ug/g	0.8±0.3	0.9±0.3	1.3±0.3
Nickel	ug/g	1.3±0.1	1.7±0.1	1.7±0.1
Selenium	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	17±3	15±3	16±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.3±0.1	0.2±0.1	0.1±0.1
Titanium	ug/g	140±40	170±50	150±50
Uranium	ug/g	0.2±0.1	0.2±0.1	0.2±0.1
Vanadium	ug/g	5.2±0.7	6.3±0.7	5.7±0.7
Zinc	ug/g	7.9±2	13±2	9.0±2
Radio Chemistry				
Lead-210	Bq/g	0.06±0.04	<0.04	0.10±0.04
Polonium-210	Bq/g	0.06±0.03	0.06±0.03	0.09±0.04
Radium-226	Bq/g	0.02±0.02	<0.01	0.03±0.02
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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SRC ANALYTICAL

Jan 06, 2012

CanNorth, Canada North Environmental Services Limited

36001 09/24/2011 GREEN BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36002 09/24/2011 GREEN BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
36003 09/24/2011 GREEN BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36001	36002	36003
Inorganic Chemistry				
Loss on ignition	%	4.80±0.4	4.67±0.4	3.29±0.4
Moisture	%	63.38±0.6	64.27±0.6	58.57±0.6
ICP				
Aluminum	ug/g	1500±400	1500±400	1100±300
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.7±0.1	0.7±0.1	1.4±0.1
Barium	ug/g	16±0.8	16±0.8	12±0.7
Beryllium	ug/g	<0.1	<0.1	<0.1
Boron	ug/g	2±1	2±1	1±1
Cadmium	ug/g	0.2±0.1	0.1±0.1	<0.1
Chromium	ug/g	2.2±1	2.1±1	2.0±1
Cobalt	ug/g	0.2±0.2	0.3±0.2	<0.2
Copper	ug/g	0.7±0.6	0.7±0.6	0.5±0.5
Iron	ug/g	1800±200	1500±200	1200±100
Lead	ug/g	2.5±0.5	2.3±0.4	1.9±0.4
Manganese	ug/g	71±5	56±5	55±5
Molybdenum	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Nickel	ug/g	0.8±0.1	0.9±0.1	0.8±0.1
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	20±3	22±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	0.1±0.1	<0.1
Titanium	ug/g	98±8	110±40	67±7
Uranium	ug/g	0.1±0.1	0.1±0.1	<0.1
Vanadium	ug/g	4.1±0.6	4.1±0.6	3.2±0.5
Zinc	ug/g	7.8±2	10±2	5.3±2
Radio Chemistry				
Lead-210	Bq/g	0.14±0.05	0.30±0.1	0.08±0.04
Polonium-210	Bq/g	0.16±0.07	0.11±0.05	0.10±0.05
Radium-226	Bq/g	<0.01	<0.01	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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Jan 06, 2012

CanNorth, Canada North Environmental Services Limited

36004 09/24/2011 GREEN BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36005 09/24/2011 GREEN BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*
36006 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36004	36005	36006
Inorganic Chemistry				
Loss on ignition	%	12.38±0.7	3.18±0.4	16.28±0.8
Moisture	%	81.96±0.7	72.86±0.7	90.61±0.7
ICP				
Aluminum	ug/g	2600±600	620±200	12000±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.2±0.1	0.5±0.1	2.2±0.1
Barium	ug/g	25±1	8.2±0.6	80±2
Beryllium	ug/g	<0.1	<0.1	0.6±0.1
Boron	ug/g	3±1	1±1	6±1
Cadmium	ug/g	0.1±0.1	<0.1	0.3±0.1
Chromium	ug/g	4.0±1	1.0±0.7	23±3
Cobalt	ug/g	0.5±0.2	<0.2	3.7±0.3
Copper	ug/g	1.7±0.9	<0.5	7.9±2
Iron	ug/g	3600±200	660±100	16800±500
Lead	ug/g	5.7±0.7	1.1±0.3	11±0.9
Manganese	ug/g	110±50	47±4	240±70
Molybdenum	ug/g	0.3±0.2	0.1±0.1	6.2±0.7
Nickel	ug/g	2.0±0.1	0.7±0.1	12±0.3
Selenium	ug/g	0.2±0.1	<0.1	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	28±3	13±2	20±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	<0.1	1.0±0.1
Titanium	ug/g	200±60	40±5	870±100
Uranium	ug/g	0.2±0.1	<0.1	4.6±0.6
Vanadium	ug/g	7.5±0.8	1.9±0.4	26±1
Zinc	ug/g	15±3	3.6±1	43±4
Radio Chemistry				
Lead-210	Bq/g	0.35±0.1	0.11±0.04	0.41±0.1
Polonium-210	Bq/g	0.35±0.1	0.10±0.05	0.43±0.2
Radium-226	Bq/g	0.01±0.01	<0.01	0.04±0.03
Thorium-230	Bq/g	<0.02	<0.02	0.02±0.02

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36007 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

36008 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

36009 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36007	36008	36009
Inorganic Chemistry				
Loss on ignition	%	16.18±0.8	14.79±0.7	17.30±0.8
Moisture	%	91.54±0.7	91.15±0.7	92.45±0.7
ICP				
Aluminum	ug/g	12400±2000	12200±2000	12100±2000
Antimony	ug/g	<0.2	0.4±0.3	<0.2
Arsenic	ug/g	2.2±0.1	2.0±0.1	2.0±0.1
Barium	ug/g	80±2	77±2	80±2
Beryllium	ug/g	0.6±0.1	0.6±0.1	0.6±0.1
Boron	ug/g	6±1	6±1	6±1
Cadmium	ug/g	0.4±0.1	0.3±0.1	0.2±0.1
Chromium	ug/g	22±3	22±3	22±3
Cobalt	ug/g	3.6±0.3	3.4±0.3	3.5±0.3
Copper	ug/g	7.8±2	7.6±2	8.1±2
Iron	ug/g	18200±500	18800±500	19300±500
Lead	ug/g	10±0.9	9.2±0.9	9.6±0.9
Manganese	ug/g	230±60	250±70	250±70
Molybdenum	ug/g	6.8±0.7	6.4±0.7	6.6±0.7
Nickel	ug/g	12±0.3	11±0.3	12±0.3
Selenium	ug/g	0.6±0.2	0.6±0.2	0.7±0.3
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	20±3	19±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.8±0.1	0.8±0.1	0.7±0.1
Titanium	ug/g	900±100	890±100	850±100
Uranium	ug/g	4.4±0.6	4.2±0.6	4.4±0.6
Vanadium	ug/g	25±1	25±1	25±1
Zinc	ug/g	42±4	41±4	41±4
Radio Chemistry				
Lead-210	Bq/g	0.42±0.1	0.37±0.1	0.38±0.1
Polonium-210	Bq/g	0.42±0.1	0.31±0.1	0.35±0.1
Radium-226	Bq/g	0.05±0.03	0.06±0.04	<0.01
Thorium-230	Bq/g	0.04±0.02	0.02±0.02	0.05±0.03

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36010 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

36011 09/28/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 5D, SED 0-2 CM COMPOSITE *SEDIMENT*

36012 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36010	36011	36012
Inorganic Chemistry				
Loss on ignition	%	16.41±0.8	16.95±0.8	7.33±0.5
Moisture	%	92.14±0.7	92.50±0.7	84.98±0.7
ICP				
Aluminum	ug/g	12100±2000	11900±2000	3600±800
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.1±0.1	2.0±0.1	2.0±0.1
Barium	ug/g	82±2	80±2	29±1
Beryllium	ug/g	0.6±0.1	0.6±0.1	0.2±0.1
Boron	ug/g	6±1	5±1	3±1
Cadmium	ug/g	0.3±0.1	0.4±0.1	0.1±0.1
Chromium	ug/g	23±3	22±3	7.4±2
Cobalt	ug/g	3.4±0.3	3.3±0.3	1.2±0.2
Copper	ug/g	7.8±2	7.7±2	1.7±0.9
Iron	ug/g	20800±500	19900±500	7600±300
Lead	ug/g	9.3±0.9	9.3±0.9	2.8±0.5
Manganese	ug/g	280±70	240±70	260±70
Molybdenum	ug/g	5.6±0.7	4.9±0.6	0.4±0.2
Nickel	ug/g	11±0.3	11±0.3	2.5±0.1
Selenium	ug/g	0.5±0.2	0.6±0.2	0.5±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	19±3	20±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.8±0.1	0.7±0.1	0.2±0.1
Titanium	ug/g	920±100	880±100	230±60
Uranium	ug/g	4.3±0.6	4.2±0.6	0.3±0.2
Vanadium	ug/g	26±1	25±1	11±0.9
Zinc	ug/g	41±4	41±4	9.7±2
Radio Chemistry				
Lead-210	Bq/g	0.35±0.1	0.36±0.1	0.22±0.08
Polonium-210	Bq/g	0.37±0.1	0.33±0.1	0.14±0.06
Radium-226	Bq/g	<0.01	<0.01	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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Jan 06, 2012

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36013 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
36014 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*
36015 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36013	36014	36015
Inorganic Chemistry				
Loss on ignition	%	10.23±0.6	1.93±0.3	4.60±0.4
Moisture	%	88.22±0.7	50.44±0.6	75.27±0.7
ICP				
Aluminum	ug/g	3400±800	1200±400	1200±400
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.5±0.1	0.5±0.1	0.7±0.1
Barium	ug/g	30±1	11±0.7	15±0.8
Beryllium	ug/g	0.1±0.1	<0.1	<0.1
Boron	ug/g	3±1	2±1	1±1
Cadmium	ug/g	0.2±0.1	<0.1	<0.1
Chromium	ug/g	5.7±2	1.8±0.9	2.5±1
Cobalt	ug/g	1.1±0.2	0.2±0.2	0.3±0.2
Copper	ug/g	1.9±1	<0.5	0.7±0.6
Iron	ug/g	6000±300	1300±100	2100±200
Lead	ug/g	3.7±0.6	1.2±0.3	1.5±0.4
Manganese	ug/g	280±70	83±6	140±50
Molybdenum	ug/g	0.3±0.2	<0.1	0.1±0.1
Nickel	ug/g	4.6±0.2	0.7±0.1	1.3±0.1
Selenium	ug/g	0.3±0.2	<0.1	0.1±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	22±3	16±3	16±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	<0.1	<0.1
Titanium	ug/g	230±60	80±7	91±8
Uranium	ug/g	0.3±0.2	<0.1	0.1±0.1
Vanadium	ug/g	8.7±0.8	2.7±0.5	3.5±0.5
Zinc	ug/g	13±2	3.7±1	5.3±2
Radio Chemistry				
Lead-210	Bq/g	0.13±0.05	0.05±0.04	0.09±0.04
Polonium-210	Bq/g	0.16±0.07	0.04±0.02	0.10±0.05
Radium-226	Bq/g	0.01±0.01	0.04±0.03	0.01±0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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Jan 06, 2012

CanNorth, Canada North Environmental Services Limited

36016 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*
36017 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36018 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36016	36017	36018
Inorganic Chemistry				
Loss on ignition	%	13.82±0.7	21.11±0.9	22.02±0.9
Moisture	%	90.90±0.7	93.45±0.7	93.71±0.8
ICP				
Aluminum	ug/g	3300±800	Not Reported	Not Reported
Antimony	ug/g	<0.2	Not Reported	Not Reported
Arsenic	ug/g	1.8±0.1	Not Reported	Not Reported
Barium	ug/g	43±1	Not Reported	Not Reported
Beryllium	ug/g	0.2±0.1	Not Reported	Not Reported
Boron	ug/g	3±1	Not Reported	Not Reported
Cadmium	ug/g	0.2±0.1	Not Reported	Not Reported
Chromium	ug/g	6.0±2	Not Reported	Not Reported
Cobalt	ug/g	1.2±0.2	Not Reported	Not Reported
Copper	ug/g	2.3±1	Not Reported	Not Reported
Iron	ug/g	6900±300	Not Reported	Not Reported
Lead	ug/g	4.0±0.6	Not Reported	Not Reported
Manganese	ug/g	290±70	Not Reported	Not Reported
Molybdenum	ug/g	0.3±0.2	Not Reported	Not Reported
Nickel	ug/g	3.4±0.2	Not Reported	Not Reported
Selenium	ug/g	0.6±0.2	Not Reported	Not Reported
Silver	ug/g	<0.1	Not Reported	Not Reported
Strontium	ug/g	24±3	Not Reported	Not Reported
Thallium	ug/g	<0.2	Not Reported	Not Reported
Tin	ug/g	0.2±0.1	Not Reported	Not Reported
Titanium	ug/g	200±60	Not Reported	Not Reported
Uranium	ug/g	0.3±0.2	Not Reported	Not Reported
Vanadium	ug/g	9.8±0.9	Not Reported	Not Reported
Zinc	ug/g	15±3	Not Reported	Not Reported
Radio Chemistry				
Lead-210	Bq/g	0.21±0.07	0.41±0.1	0.49±0.2
Polonium-210	Bq/g	0.27±0.1	0.38±0.1	0.47±0.2
Radium-226	Bq/g	0.02±0.02	0.02±0.02	0.04±0.03
Thorium-230	Bq/g	0.02±0.02	0.02±0.02	0.04±0.02

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SRC ANALYTICAL

Jan 06, 2012

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36019	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT***
36020	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT***
36021	**09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT***

Analyte	Units	36019	36020	36021
Inorganic Chemistry				
Loss on ignition	%	21.08±0.9	21.27±0.9	20.80±0.9
Moisture	%	92.02±0.7	93.20±0.7	92.74±0.7
ICP				
Aluminum	ug/g	Not Reported	Not Reported	Not Reported
Antimony	ug/g	Not Reported	Not Reported	Not Reported
Arsenic	ug/g	Not Reported	Not Reported	Not Reported
Barium	ug/g	Not Reported	Not Reported	Not Reported
Beryllium	ug/g	Not Reported	Not Reported	Not Reported
Boron	ug/g	Not Reported	Not Reported	Not Reported
Cadmium	ug/g	Not Reported	Not Reported	Not Reported
Chromium	ug/g	Not Reported	Not Reported	Not Reported
Cobalt	ug/g	Not Reported	Not Reported	Not Reported
Copper	ug/g	Not Reported	Not Reported	Not Reported
Iron	ug/g	Not Reported	Not Reported	Not Reported
Lead	ug/g	Not Reported	Not Reported	Not Reported
Manganese	ug/g	Not Reported	Not Reported	Not Reported
Molybdenum	ug/g	Not Reported	Not Reported	Not Reported
Nickel	ug/g	Not Reported	Not Reported	Not Reported
Selenium	ug/g	Not Reported	Not Reported	Not Reported
Silver	ug/g	Not Reported	Not Reported	Not Reported
Strontium	ug/g	Not Reported	Not Reported	Not Reported
Thallium	ug/g	Not Reported	Not Reported	Not Reported
Tin	ug/g	Not Reported	Not Reported	Not Reported
Titanium	ug/g	Not Reported	Not Reported	Not Reported
Uranium	ug/g	Not Reported	Not Reported	Not Reported
Vanadium	ug/g	Not Reported	Not Reported	Not Reported
Zinc	ug/g	Not Reported	Not Reported	Not Reported
Radio Chemistry				
Lead-210	Bq/g	0.43±0.1	0.41±0.1	0.44±0.1
Polonium-210	Bq/g	0.44±0.2	0.48±0.2	0.48±0.2
Radium-226	Bq/g	0.02±0.02	0.03±0.02	0.04±0.03
Thorium-230	Bq/g	0.02±0.02	0.04±0.02	0.02±0.02

Results are reported on a dry basis.

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Jan 06, 2012

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36022 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36023 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 1D, SED 0-2 CM COMPOSITE *SEDIMENT*
36024 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36022	36023	36024
Inorganic Chemistry				
Loss on ignition	%	2.46±0.3	2.26±0.3	1.86±0.3
Moisture	%	43.06±0.5	40.63±0.5	38.59±0.5
ICP				
Aluminum	ug/g	8600±1000	7700±1000	7900±1000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.6±0.1	2.7±0.1	1.7±0.1
Barium	ug/g	55±1	48±1	47±1
Beryllium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Boron	ug/g	8±1	7±1	7±1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	17±3	15±3	14±2
Cobalt	ug/g	2.7±0.3	2.5±0.2	2.6±0.3
Copper	ug/g	3.6±1	3.2±1	2.7±1
Iron	ug/g	10600±400	9900±400	9200±400
Lead	ug/g	4.4±0.6	4.2±0.6	4.0±0.6
Manganese	ug/g	220±60	200±60	180±60
Molybdenum	ug/g	0.5±0.2	0.5±0.2	0.4±0.2
Nickel	ug/g	6.6±0.2	6.3±0.2	5.7±0.2
Selenium	ug/g	0.8±0.3	0.7±0.3	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	30±3	29±3	32±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.4±0.1	0.4±0.1	0.4±0.1
Titanium	ug/g	720±100	650±100	780±100
Uranium	ug/g	38±2	32±2	23±1
Vanadium	ug/g	36±2	33±2	31±2
Zinc	ug/g	15±3	19±3	14±2
Radio Chemistry				
Lead-210	Bq/g	0.17±0.06	0.12±0.04	0.07±0.04
Polonium-210	Bq/g	0.14±0.06	0.12±0.05	0.12±0.05
Radium-226	Bq/g	0.09±0.05	0.06±0.04	<0.01
Thorium-230	Bq/g	5.0±0.9	4.1±0.8	2.8±0.6

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36025 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*
36026 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36027 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36025	36026	36027
Inorganic Chemistry				
Loss on ignition	%	1.83±0.3	3.73±0.4	4.15±0.4
Moisture	%	34.90±0.5	57.78±0.6	64.65±0.6
ICP				
Aluminum	ug/g	7600±1000	11800±2000	12500±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	4.9±0.2	9.8±0.3	3.7±0.1
Barium	ug/g	50±1	65±1	74±2
Beryllium	ug/g	0.3±0.1	0.5±0.1	0.4±0.1
Boron	ug/g	6±1	11±1	13±1
Cadmium	ug/g	<0.1	0.1±0.1	0.1±0.1
Chromium	ug/g	15±3	32±4	23±3
Cobalt	ug/g	2.6±0.3	3.8±0.3	3.7±0.3
Copper	ug/g	2.7±1	7.7±2	6.6±2
Iron	ug/g	10100±400	15300±500	15200±500
Lead	ug/g	4.0±0.6	11±0.9	7.0±0.7
Manganese	ug/g	210±60	220±60	370±80
Molybdenum	ug/g	0.5±0.2	1.4±0.4	0.8±0.3
Nickel	ug/g	5.5±0.2	9.7±0.3	10±0.3
Selenium	ug/g	0.5±0.2	1.1±0.3	1.1±0.3
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	28±3	39±4	47±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.3±0.1	0.6±0.1	0.6±0.1
Titanium	ug/g	640±100	880±100	990±100
Uranium	ug/g	25±1	67±2	54±2
Vanadium	ug/g	31±2	280±30	50±2
Zinc	ug/g	14±2	22±3	23±3
Radio Chemistry				
Lead-210	Bq/g	0.11±0.04	0.40±0.1	0.17±0.06
Polonium-210	Bq/g	0.13±0.06	0.47±0.2	0.21±0.08
Radium-226	Bq/g	0.01±0.01	0.51±0.2	0.10±0.05
Thorium-230	Bq/g	7.7±1	26±3	4.8±0.9

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Jan 06, 2012

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36028	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT***
36029	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT***
36030	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT***

Analyte	Units	36028	36029	36030
Inorganic Chemistry				
Loss on ignition	%	12.46±0.7	8.68±0.6	16.84±0.8
Moisture	%	85.71±0.7	80.68±0.7	87.53±0.7
ICP				
Aluminum	ug/g	20900±3000	23800±3000	20300±3000
Antimony	ug/g	0.6±0.3	0.3±0.2	0.3±0.2
Arsenic	ug/g	5.3±0.2	4.5±0.2	7.5±0.2
Barium	ug/g	200±20	180±2	270±20
Beryllium	ug/g	0.7±0.1	0.8±0.2	0.7±0.1
Boron	ug/g	32±1	33±1	34±1
Cadmium	ug/g	0.3±0.1	0.3±0.1	0.4±0.1
Chromium	ug/g	32±4	34±4	30±3
Cobalt	ug/g	5.9±0.4	6.4±0.4	6.0±0.4
Copper	ug/g	21±3	21±3	21±3
Iron	ug/g	20800±500	20300±500	29300±600
Lead	ug/g	8.2±0.8	8.3±0.8	7.8±0.8
Manganese	ug/g	1000±100	530±90	1600±200
Molybdenum	ug/g	1.9±0.4	1.9±0.4	2.0±0.4
Nickel	ug/g	21±0.5	22±0.5	22±0.5
Selenium	ug/g	0.7±0.3	0.7±0.3	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	79±5	84±6	82±6
Thallium	ug/g	0.2±0.2	0.2±0.2	<0.2
Tin	ug/g	0.9±0.1	1.0±0.1	0.8±0.1
Titanium	ug/g	1200±200	1400±200	1200±200
Uranium	ug/g	8.1±0.8	6.8±0.7	8.7±0.8
Vanadium	ug/g	37±2	39±2	35±2
Zinc	ug/g	45±4	47±4	46±4
Radio Chemistry				
Lead-210	Bq/g	0.12±0.04	0.16±0.06	0.26±0.09
Polonium-210	Bq/g	0.16±0.07	0.12±0.05	0.26±0.1
Radium-226	Bq/g	0.08±0.04	0.14±0.07	0.09±0.05
Thorium-230	Bq/g	0.10±0.05	0.06±0.03	0.05±0.03

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Jan 06, 2012

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36031 10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 3D, SED 0-2 CM COMPOSITE *SEDIMENT*
36032 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36033 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36031	36032	36033
Inorganic Chemistry				
Loss on ignition	%	16.20±0.8	13.13±0.7	11.00±0.6
Moisture	%	86.54±0.7	85.69±0.7	81.89±0.7
ICP				
Aluminum	ug/g	21600±3000	22500±3000	23400±3000
Antimony	ug/g	0.3±0.2	0.2±0.2	0.3±0.2
Arsenic	ug/g	5.7±0.2	3.9±0.2	4.7±0.2
Barium	ug/g	240±20	190±20	200±20
Beryllium	ug/g	0.8±0.2	0.7±0.1	0.7±0.1
Boron	ug/g	36±1	32±1	33±1
Cadmium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Chromium	ug/g	32±4	32±4	33±4
Cobalt	ug/g	6.1±0.4	5.8±0.4	6.1±0.4
Copper	ug/g	23±3	20±3	22±3
Iron	ug/g	25100±600	19100±500	19900±500
Lead	ug/g	8.4±0.8	8.4±0.8	8.1±0.8
Manganese	ug/g	1000±100	620±100	450±90
Molybdenum	ug/g	1.7±0.4	1.2±0.3	1.7±0.4
Nickel	ug/g	22±0.5	20±0.4	21±0.5
Selenium	ug/g	0.7±0.3	0.6±0.2	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	88±6	84±6	85±6
Thallium	ug/g	<0.2	<0.2	0.2±0.2
Tin	ug/g	0.9±0.1	0.8±0.1	0.9±0.1
Titanium	ug/g	1200±200	1200±200	1300±200
Uranium	ug/g	9.5±0.9	8.1±0.8	7.0±0.7
Vanadium	ug/g	37±2	37±2	39±2
Zinc	ug/g	48±4	46±4	46±4
Radio Chemistry				
Lead-210	Bq/g	0.28±0.1	0.24±0.08	0.09±0.04
Polonium-210	Bq/g	0.27±0.1	0.25±0.1	0.14±0.06
Radium-226	Bq/g	0.08±0.04	0.05±0.03	0.05±0.03
Thorium-230	Bq/g	0.11±0.05	0.06±0.03	0.09±0.05

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Results are reported on a dry basis.

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Jan 06, 2012

Quality Control Report

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This report was generated for samples included in SRC Group # 2011-10100

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value	
Aluminum	ug/g	23600	26000	
Antimony	ug/g	6.11	6.62	
Arsenic	ug/g	16.8	17.1	
Barium	ug/g	91.9	101	
Beryllium	ug/g	0.710	0.705	
Boron	ug/g	6.31	7.62	
Cadmium	ug/g	0.300	0.304	
Chromium	ug/g	40.8	43.8	
Cobalt	ug/g	14.3	15.6	
Copper	ug/g	44.7	47.3	
Iron	ug/g	40500	41300	
Lead	ug/g	13.3	14.1	
Lead-210	Bq/L	22.0	23.0	
Lead-210	Bq	0.322	0.384	
Lead-210	Bq/L	22.0	20.9	
Lead-210	Bq	1.61	1.60	
Lead-210	Bq/L	22.0	22.4	
Lead-210	Bq	0.322	0.325	
Lead-210	Bq/L	22.0	17.3	
Lead-210	Bq	6.64	5.90	
Manganese	ug/g	1170	1300	
Molybdenum	ug/g	0.727	0.828	
Nickel	ug/g	19.7	22.2	
Polonium-210	Bq/L	19.9	20.7	
Polonium-210	Bq	0.644	0.630	
Polonium-210	Bq/L	19.9	21.2	
Polonium-210	Bq	0.644	0.682	
Polonium-210	Bq/L	19.9	22.8	
Polonium-210	Bq	0.322	0.316	
Polonium-210	Bq/L	19.9	19.3	
Polonium-210	Bq	0.644	5.98	* (1)

QC Analysis	Units	Target Value	Obtained Value
Radium-226	Bq/L	20.6	22.2
Radium-226	Bq	0.427	0.402
Radium-226	Bq/L	20.6	20.4
Radium-226	Bq	2.13	2.01
Radium-226	Bq/L	20.6	20.7
Radium-226	Bq	0.043	0.040
Selenium	ug/g	0.400	0.383
Silver	ug/g	0.215	0.222
Strontium	ug/g	25.5	27.1
Thallium	ug/g	0.160	0.161
Thorium-230	Bq/L	24.0	24.0
Thorium-230	Bq/L	24.0	24.3
Thorium-230	Bq/L	24.0	23.9
Thorium-230	Bq/L	24.0	24.7
Thorium-232	Bq	0.216	0.249
Thorium-232	Bq	0.216	0.252
Thorium-232	Bq	0.216	0.209
Thorium-232	Bq	0.216	0.219
Tin	ug/g	1.40	1.47
Titanium	ug/g	1770	2350
Uranium	ug/g	1.06	1.23
Vanadium	ug/g	75.2	81.1
Zinc	ug/g	80.1	86.1

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Aluminum	ug/g	6000	5200
Aluminum	ug/g	2600	2900
Aluminum	ug/g	1200	1200
Aluminum	ug/g	7900	8400
Arsenic	ug/g	2.4	2.1
Arsenic	ug/g	1.2	1.1
Arsenic	ug/g	0.5	0.6
Arsenic	ug/g	1.7	1.7
Boron	ug/g	4	3
Boron	ug/g	3	3
Boron	ug/g	2	1
Boron	ug/g	7	7
Barium	ug/g	<20	<20
Barium	ug/g	50	50
Barium	ug/g	59	53

Duplicate Analysis	Units	First Result	Second Result
Barium	ug/g	25	27
Barium	ug/g	11	12
Barium	ug/g	47	48
Beryllium	ug/g	0.2	0.2
Beryllium	ug/g	<0.1	0.1
Beryllium	ug/g	<0.1	<0.1
Beryllium	ug/g	0.3	0.3
Cadmium	ug/g	<0.1	0.1
Cadmium	ug/g	0.1	0.2
Cadmium	ug/g	<0.1	<0.1
Cadmium	ug/g	<0.1	<0.1
Cobalt	ug/g	2.0	1.7
Cobalt	ug/g	0.5	0.6
Cobalt	ug/g	0.2	0.3
Cobalt	ug/g	2.6	2.6
Chromium	ug/g	10	9.5
Chromium	ug/g	4.0	4.8
Chromium	ug/g	1.8	2.0
Chromium	ug/g	14	14
Copper	ug/g	2.8	2.4
Copper	ug/g	1.7	1.8
Copper	ug/g	<0.5	<0.5
Copper	ug/g	2.7	2.7
Iron	ug/g	5400	4300
Iron	ug/g	3600	3900
Iron	ug/g	1300	1600
Iron	ug/g	9200	9400
Loss on ignition	%	12.63	12.14
Loss on ignition	%	1.97	1.89
Loss on ignition	%	1.86	1.85
Manganese	ug/g	290	260
Manganese	ug/g	110	110
Manganese	ug/g	90	80
Manganese	ug/g	180	190
Manganese	ug/g	290	260
Manganese	ug/g	110	110
Manganese	ug/g	83	87
Molybdenum	ug/g	1.3	1.0
Molybdenum	ug/g	0.3	0.4
Molybdenum	ug/g	<0.1	<0.1
Molybdenum	ug/g	0.4	0.4
Nickel	ug/g	4.6	4.2
Nickel	ug/g	2.0	2.7
Nickel	ug/g	0.7	1.0
Nickel	ug/g	5.7	5.8
Lead	ug/g	3.4	3.1
Lead	ug/g	5.7	5.9
Lead	ug/g	1.2	1.4
Lead	ug/g	4.0	4.0
Lead-210	Bq/g	0.48	0.40
Lead-210	Bq/g	0.001	<0.001
Lead-210	Bq/g	0.16	0.11
Lead-210	Bq/g	0.07	0.09
Lead-210	Bq/g	0.32	0.21
Lead-210	Bq/g	<0.04	0.05

Duplicate Analysis	Units	First Result	Second Result
Lead-210	Bq/g	<0.02	0.02
Polonium-210	Bq/g	0.15	0.13
Polonium-210	Bq/g	0.45	0.50
Polonium-210	Bq/g	6.3	6.9
Polonium-210	Bq/g	0.002	0.004
Polonium-210	Bq/g	0.11	0.08
Polonium-210	Bq/g	0.25	0.26
Polonium-210	Bq/g	0.09	0.09
Radium-226	Bq/g	0.6	0.4
Radium-226	Bq/g	<0.002	0.003
Radium-226	Bq/g	<0.01	<0.01
Radium-226	Bq/g	0.01	<0.01
Radium-226	Bq/g	0.08	0.07
Radium-226	Bq/g	0.06	0.04
Radium-226	Bq/g	0.3	0.6
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Selenium	ug/g	0.2	0.3
Selenium	ug/g	0.2	0.2
Selenium	ug/g	<0.1	<0.1
Selenium	ug/g	0.6	0.6
Tin	ug/g	0.5	0.4
Tin	ug/g	0.2	0.3
Tin	ug/g	<0.1	<0.1
Tin	ug/g	0.4	0.4
Strontium	ug/g	25	24
Strontium	ug/g	28	29
Strontium	ug/g	16	15
Strontium	ug/g	32	31
Thorium-230	Bq/g	0.02	0.02
Thorium-230	Bq/g	<0.02	<0.02
Thorium-230	Bq/g	<0.004	<0.004
Thorium-230	Bq/g	3.0	2.7
Thorium-230	Bq/g	0.08	0.05
Thorium-230	Bq/g	<0.01	0.02
Thorium-230	Bq/g	8.1	7.6
Thorium-230	Bq/g	14	15
Titanium	ug/g	440	390
Titanium	ug/g	200	230
Titanium	ug/g	80	100
Titanium	ug/g	780	850
Titanium	ug/g	440	400
Titanium	ug/g	220	250
Titanium	ug/g	80	94
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Uranium	ug/g	0.6	0.5
Uranium	ug/g	0.2	0.2
Uranium	ug/g	<0.1	<0.1
Uranium	ug/g	23	22
Vanadium	ug/g	31	32

Duplicate Analysis	Units	First Result	Second Result
Vanadium	ug/g	12	11
Vanadium	ug/g	7.5	8.5
Vanadium	ug/g	2.7	3.2
Vanadium	ug/g	31	31
Zinc	ug/g	24	19
Zinc	ug/g	15	17
Zinc	ug/g	3.7	4.5
Zinc	ug/g	14	15

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	% Recovered	
Polonium-210	96	
Radium-226	187	* (2)

*(1) The Polonium-210 result for the Quality Control calibration check standard was outside the laboratory's specified limits. The data was reviewed and it indicates an error with the preparation (mislabeled) of the calibration check standard. The 6.64 Bq calibration check standard was switched with the 0.644 Bq standard. The 6.64 Bq calibration check standard was within specified limits. This would not affect any sample results. All additional quality control measures in the same batch were within specified limits.

*(2) The percent recovery for Radium-226 in the spiked sample was outside the laboratory's specified limits of 80 - 120% recovery. The data was reviewed and another sample was reanalyzed. The second sample was within specified limits. Additional quality control measures in the same batch were within specified limits.

Roxane Ortmann - Quality Control Supervisor

SRC ANALYTICAL

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Jan 06, 2012

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK, S7L 6M7

This report was generated for samples included in SRC Group # 2011-10100

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value	
Aluminum	ug/g	23600	26000	
Antimony	ug/g	6.11	6.62	
Arsenic	ug/g	16.8	17.1	
Barium	ug/g	91.9	101	
Beryllium	ug/g	0.710	0.705	
Boron	ug/g	6.31	7.62	
Cadmium	ug/g	0.300	0.304	
Chromium	ug/g	40.8	43.8	
Cobalt	ug/g	14.3	15.6	
Copper	ug/g	44.7	47.3	
Iron	ug/g	40500	41300	
Lead	ug/g	13.3	14.1	
Lead-210	Bq/L	22.0	23.0	
Lead-210	Bq	0.322	0.384	
Lead-210	Bq/L	22.0	20.9	
Lead-210	Bq	1.61	1.60	
Lead-210	Bq/L	22.0	22.4	
Lead-210	Bq	0.322	0.325	
Lead-210	Bq/L	22.0	17.3	
Lead-210	Bq	6.64	5.90	
Manganese	ug/g	1170	1300	
Molybdenum	ug/g	0.727	0.828	
Nickel	ug/g	19.7	22.2	
Polonium-210	Bq/L	19.9	20.7	
Polonium-210	Bq	0.644	0.630	
Polonium-210	Bq/L	19.9	21.2	
Polonium-210	Bq	0.644	0.682	
Polonium-210	Bq/L	19.9	22.8	
Polonium-210	Bq	0.322	0.316	
Polonium-210	Bq/L	19.9	19.3	
Polonium-210	Bq	0.644	5.98	* (1)

QC Analysis	Units	Target Value	Obtained Value
Radium-226	Bq/L	20.6	22.2
Radium-226	Bq	0.427	0.402
Radium-226	Bq/L	20.6	20.4
Radium-226	Bq	2.13	2.01
Radium-226	Bq/L	20.6	20.7
Radium-226	Bq	0.043	0.040
Selenium	ug/g	0.400	0.383
Silver	ug/g	0.215	0.222
Strontium	ug/g	25.5	27.1
Thallium	ug/g	0.160	0.161
Thorium-230	Bq/L	24.0	24.0
Thorium-230	Bq/L	24.0	24.3
Thorium-230	Bq/L	24.0	23.9
Thorium-230	Bq/L	24.0	24.7
Thorium-232	Bq	0.216	0.249
Thorium-232	Bq	0.216	0.252
Thorium-232	Bq	0.216	0.209
Thorium-232	Bq	0.216	0.219
Tin	ug/g	1.40	1.47
Titanium	ug/g	1770	2350
Uranium	ug/g	1.06	1.23
Vanadium	ug/g	75.2	81.1
Zinc	ug/g	80.1	86.1

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Silver	ug/g	<0.1	<0.1
Aluminum	ug/g	6000	5200
Aluminum	ug/g	2600	2900
Aluminum	ug/g	1200	1200
Aluminum	ug/g	7900	8400
Arsenic	ug/g	2.4	2.1
Arsenic	ug/g	1.2	1.1
Arsenic	ug/g	0.5	0.6
Arsenic	ug/g	1.7	1.7
Boron	ug/g	4	3
Boron	ug/g	3	3
Boron	ug/g	2	1
Boron	ug/g	7	7
Barium	ug/g	<20	<20
Barium	ug/g	50	50
Barium	ug/g	59	53

Duplicate Analysis	Units	First Result	Second Result
Barium	ug/g	25	27
Barium	ug/g	11	12
Barium	ug/g	47	48
Beryllium	ug/g	0.2	0.2
Beryllium	ug/g	<0.1	0.1
Beryllium	ug/g	<0.1	<0.1
Beryllium	ug/g	0.3	0.3
Cadmium	ug/g	<0.1	0.1
Cadmium	ug/g	0.1	0.2
Cadmium	ug/g	<0.1	<0.1
Cadmium	ug/g	<0.1	<0.1
Cobalt	ug/g	2.0	1.7
Cobalt	ug/g	0.5	0.6
Cobalt	ug/g	0.2	0.3
Cobalt	ug/g	2.6	2.6
Chromium	ug/g	10	9.5
Chromium	ug/g	4.0	4.8
Chromium	ug/g	1.8	2.0
Chromium	ug/g	14	14
Copper	ug/g	2.8	2.4
Copper	ug/g	1.7	1.8
Copper	ug/g	<0.5	<0.5
Copper	ug/g	2.7	2.7
Iron	ug/g	5400	4300
Iron	ug/g	3600	3900
Iron	ug/g	1300	1600
Iron	ug/g	9200	9400
Loss on ignition	%	12.63	12.14
Loss on ignition	%	1.97	1.89
Loss on ignition	%	1.86	1.85
Manganese	ug/g	290	260
Manganese	ug/g	110	110
Manganese	ug/g	90	80
Manganese	ug/g	180	190
Manganese	ug/g	290	260
Manganese	ug/g	110	110
Manganese	ug/g	83	87
Molybdenum	ug/g	1.3	1.0
Molybdenum	ug/g	0.3	0.4
Molybdenum	ug/g	<0.1	<0.1
Molybdenum	ug/g	0.4	0.4
Nickel	ug/g	4.6	4.2
Nickel	ug/g	2.0	2.7
Nickel	ug/g	0.7	1.0
Nickel	ug/g	5.7	5.8
Lead	ug/g	3.4	3.1
Lead	ug/g	5.7	5.9
Lead	ug/g	1.2	1.4
Lead	ug/g	4.0	4.0
Lead-210	Bq/g	0.48	0.40
Lead-210	Bq/g	0.001	<0.001
Lead-210	Bq/g	0.16	0.11
Lead-210	Bq/g	0.07	0.09
Lead-210	Bq/g	0.32	0.21
Lead-210	Bq/g	<0.04	0.05

Duplicate Analysis	Units	First Result	Second Result
Lead-210	Bq/g	<0.02	0.02
Polonium-210	Bq/g	0.15	0.13
Polonium-210	Bq/g	0.45	0.50
Polonium-210	Bq/g	6.3	6.9
Polonium-210	Bq/g	0.002	0.004
Polonium-210	Bq/g	0.11	0.08
Polonium-210	Bq/g	0.25	0.26
Polonium-210	Bq/g	0.09	0.09
Radium-226	Bq/g	0.6	0.4
Radium-226	Bq/g	<0.002	0.003
Radium-226	Bq/g	<0.01	<0.01
Radium-226	Bq/g	0.01	<0.01
Radium-226	Bq/g	0.08	0.07
Radium-226	Bq/g	0.06	0.04
Radium-226	Bq/g	0.3	0.6
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Antimony	ug/g	<0.2	<0.2
Selenium	ug/g	0.2	0.3
Selenium	ug/g	0.2	0.2
Selenium	ug/g	<0.1	<0.1
Selenium	ug/g	0.6	0.6
Tin	ug/g	0.5	0.4
Tin	ug/g	0.2	0.3
Tin	ug/g	<0.1	<0.1
Tin	ug/g	0.4	0.4
Strontium	ug/g	25	24
Strontium	ug/g	28	29
Strontium	ug/g	16	15
Strontium	ug/g	32	31
Thorium-230	Bq/g	0.02	0.02
Thorium-230	Bq/g	<0.02	<0.02
Thorium-230	Bq/g	<0.004	<0.004
Thorium-230	Bq/g	3.0	2.7
Thorium-230	Bq/g	0.08	0.05
Thorium-230	Bq/g	<0.01	0.02
Thorium-230	Bq/g	8.1	7.6
Thorium-230	Bq/g	14	15
Titanium	ug/g	440	390
Titanium	ug/g	200	230
Titanium	ug/g	80	100
Titanium	ug/g	780	850
Titanium	ug/g	440	400
Titanium	ug/g	220	250
Titanium	ug/g	80	94
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Thallium	ug/g	<0.2	<0.2
Uranium	ug/g	0.6	0.5
Uranium	ug/g	0.2	0.2
Uranium	ug/g	<0.1	<0.1
Uranium	ug/g	23	22
Vanadium	ug/g	31	32

Duplicate Analysis	Units	First Result	Second Result
Vanadium	ug/g	12	11
Vanadium	ug/g	7.5	8.5
Vanadium	ug/g	2.7	3.2
Vanadium	ug/g	31	31
Zinc	ug/g	24	19
Zinc	ug/g	15	17
Zinc	ug/g	3.7	4.5
Zinc	ug/g	14	15

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	% Recovered	
Polonium-210	96	
Radium-226	187	* (2)

*(1) The Polonium-210 result for the Quality Control calibration check standard was outside the laboratory's specified limits. The data was reviewed and it indicates an error with the preparation (mislabeled) of the calibration check standard. The 6.64 Bq calibration check standard was switched with the 0.644 Bq standard. The 6.64 Bq calibration check standard was within specified limits. This would not affect any sample results. All additional quality control measures in the same batch were within specified limits.

*(2) The percent recovery for Radium-226 in the spiked sample was outside the laboratory's specified limits of 80 - 120% recovery. The data was reviewed and another sample was reanalyzed. The second sample was within specified limits. Additional quality control measures in the same batch were within specified limits.

Roxane Ortmann - Quality Control Supervisor

Revised

SRC Group # 2011-10100

Mar 14, 2012

SRC ANALYTICAL

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CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

Revised

SRC Group # 2011-10100

SRC ANALYTICAL

Mar 14, 2012

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Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Oct-12-2011 Client P.O.: PROJ#1489

35995 09/22/2011 KELLY BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
35996 09/22/2011 KELLY BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
35997 09/22/2011 KELLY BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35995	35996	35997
Inorganic Chemistry				
Loss on ignition	%	6.44±0.5	13.26±0.7	4.62±0.4
Moisture	%	79.05±0.7	87.81±0.7	81.96±0.7
ICP				
Aluminum	ug/g	6000±1000	4300±900	3100±700
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.4±0.1	1.9±0.1	1.0±0.1
Barium	ug/g	59±1	66±2	41±1
Beryllium	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Boron	ug/g	4±1	3±1	3±1
Cadmium	ug/g	<0.1	0.1±0.1	<0.1
Chromium	ug/g	10±2	8.2±2	6.7±2
Cobalt	ug/g	2.0±0.2	1.3±0.2	0.9±0.2
Copper	ug/g	2.8±1	2.3±1	1.4±0.8
Iron	ug/g	5400±300	8200±300	3600±200
Lead	ug/g	3.4±0.5	5.3±0.7	3.6±0.5
Manganese	ug/g	290±70	1200±100	340±80
Molybdenum	ug/g	1.3±0.3	4.7±0.6	1.5±0.4
Nickel	ug/g	4.6±0.2	3.9±0.2	2.8±0.2
Selenium	ug/g	0.2±0.1	0.3±0.2	0.2±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	25±3	22±3	18±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.5±0.1	0.3±0.1	0.6±0.1

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Mar 14, 2012

CanNorth, Canada North Environmental Services Limited

35995 09/22/2011 KELLY BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
35996 09/22/2011 KELLY BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
35997 09/22/2011 KELLY BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35995	35996	35997
ICP				
Titanium	ug/g	440±90	290±70	230±60
Uranium	ug/g	0.6±0.2	0.6±0.2	0.3±0.2
Vanadium	ug/g	12±1	11±0.9	8.2±0.8
Zinc	ug/g	24±3	18±3	12±2
Radio Chemistry				
Lead-210	Bq/g	0.06±0.04	0.27±0.09	0.07±0.04
Polonium-210	Bq/g	0.11±0.05	0.26±0.1	0.09±0.04
Radium-226	Bq/g	0.01±0.01	0.02±0.02	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

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Mar 14, 2012

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35998 09/23/2011 KELLY BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
35999 09/23/2011 KELLY BAY, STN 1 SAMPLE 4D, SED 0-2 CM COMPOSITE *SEDIMENT*
36000 09/23/2011 KELLY BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	35998	35999	36000
Inorganic Chemistry				
Loss on ignition	%	3.12±0.4	6.41±0.5	4.96±0.4
Moisture	%	75.58±0.7	81.74±0.7	78.69±0.7
ICP				
Aluminum	ug/g	2300±600	2400±600	2300±600
Antimony	ug/g	0.4±0.3	<0.2	<0.2
Arsenic	ug/g	0.7±0.1	0.8±0.1	0.9±0.1
Barium	ug/g	24±0.9	28±1	42±1
Beryllium	ug/g	<0.1	<0.1	0.1±0.1
Boron	ug/g	2±1	1±1	2±1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	3.5±1	4.5±1	4.1±1
Cobalt	ug/g	0.6±0.2	0.8±0.2	0.7±0.2
Copper	ug/g	0.7±0.6	1.0±0.7	1.0±0.7
Iron	ug/g	2200±200	2100±200	1300±100
Lead	ug/g	2.4±0.5	2.0±0.4	2.6±0.5
Manganese	ug/g	200±60	220±60	310±70
Molybdenum	ug/g	0.8±0.3	0.9±0.3	1.3±0.3
Nickel	ug/g	1.3±0.1	1.7±0.1	1.7±0.1
Selenium	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	17±3	15±3	16±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.3±0.1	0.2±0.1	0.1±0.1
Titanium	ug/g	140±40	170±50	150±50
Uranium	ug/g	0.2±0.1	0.2±0.1	0.2±0.1
Vanadium	ug/g	5.2±0.7	6.3±0.7	5.7±0.7
Zinc	ug/g	7.9±2	9.9±2	9.0±2
Radio Chemistry				
Lead-210	Bq/g	0.06±0.04	<0.04	0.10±0.04
Polonium-210	Bq/g	0.06±0.03	0.06±0.03	0.09±0.04
Radium-226	Bq/g	0.02±0.02	<0.01	0.03±0.02
Thorium-230	Bq/g	<0.02	<0.02	<0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Note for Sample # 35999
Note revised result for Zn. 3/14/2012 MTS.

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CanNorth, Canada North Environmental Services Limited

Results are reported on a dry basis.

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Mar 14, 2012

CanNorth, Canada North Environmental Services Limited

36001 09/24/2011 GREEN BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36002 09/24/2011 GREEN BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
36003 09/24/2011 GREEN BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36001	36002	36003
Inorganic Chemistry				
Loss on ignition	%	4.80±0.4	4.67±0.4	3.29±0.4
Moisture	%	63.38±0.6	64.27±0.6	58.57±0.6
ICP				
Aluminum	ug/g	1500±400	1500±400	1100±300
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	0.7±0.1	0.7±0.1	1.4±0.1
Barium	ug/g	16±0.8	16±0.8	12±0.7
Beryllium	ug/g	<0.1	<0.1	<0.1
Boron	ug/g	2±1	2±1	1±1
Cadmium	ug/g	0.2±0.1	0.1±0.1	<0.1
Chromium	ug/g	2.2±1	2.1±1	2.0±1
Cobalt	ug/g	0.2±0.2	0.3±0.2	<0.2
Copper	ug/g	0.7±0.6	0.7±0.6	0.5±0.5
Iron	ug/g	1800±200	1500±200	1200±100
Lead	ug/g	2.5±0.5	2.3±0.4	1.9±0.4
Manganese	ug/g	71±5	56±5	55±5
Molybdenum	ug/g	0.2±0.1	0.2±0.1	0.1±0.1
Nickel	ug/g	0.8±0.1	0.9±0.1	0.8±0.1
Selenium	ug/g	<0.1	<0.1	<0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	20±3	22±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	0.1±0.1	<0.1
Titanium	ug/g	98±8	110±40	67±7
Uranium	ug/g	0.1±0.1	0.1±0.1	<0.1
Vanadium	ug/g	4.1±0.6	4.1±0.6	3.2±0.5
Zinc	ug/g	7.8±2	10±2	5.3±2
Radio Chemistry				
Lead-210	Bq/g	0.14±0.05	0.30±0.1	0.08±0.04
Polonium-210	Bq/g	0.16±0.07	0.11±0.05	0.10±0.05
Radium-226	Bq/g	<0.01	<0.01	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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Results are reported on a dry basis.

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36004 09/24/2011 GREEN BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36005 09/24/2011 GREEN BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*
36006 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36004	36005	36006
Inorganic Chemistry				
Loss on ignition	%	12.38±0.7	3.18±0.4	16.28±0.8
Moisture	%	81.96±0.7	72.86±0.7	90.61±0.7
ICP				
Aluminum	ug/g	2600±600	620±200	12000±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.2±0.1	0.5±0.1	2.2±0.1
Barium	ug/g	25±1	8.2±0.6	80±2
Beryllium	ug/g	<0.1	<0.1	0.6±0.1
Boron	ug/g	3±1	1±1	6±1
Cadmium	ug/g	0.1±0.1	<0.1	0.3±0.1
Chromium	ug/g	4.0±1	1.0±0.7	23±3
Cobalt	ug/g	0.5±0.2	<0.2	3.7±0.3
Copper	ug/g	1.7±0.9	<0.5	7.9±2
Iron	ug/g	3600±200	660±100	16800±500
Lead	ug/g	5.7±0.7	1.1±0.3	11±0.9
Manganese	ug/g	110±50	47±4	240±70
Molybdenum	ug/g	0.3±0.2	0.1±0.1	6.2±0.7
Nickel	ug/g	2.0±0.1	0.7±0.1	12±0.3
Selenium	ug/g	0.2±0.1	<0.1	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	28±3	13±2	20±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	<0.1	1.0±0.1
Titanium	ug/g	200±60	40±5	870±100
Uranium	ug/g	0.2±0.1	<0.1	4.6±0.6
Vanadium	ug/g	7.5±0.8	1.9±0.4	26±1
Zinc	ug/g	15±3	3.6±1	43±4
Radio Chemistry				
Lead-210	Bq/g	0.35±0.1	0.11±0.04	0.41±0.1
Polonium-210	Bq/g	0.35±0.1	0.10±0.05	0.43±0.2
Radium-226	Bq/g	0.01±0.01	<0.01	0.04±0.03
Thorium-230	Bq/g	<0.02	<0.02	0.02±0.02

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36007 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

36008 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*

36009 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36007	36008	36009
Inorganic Chemistry				
Loss on ignition	%	16.18±0.8	14.79±0.7	17.30±0.8
Moisture	%	91.54±0.7	91.15±0.7	92.45±0.7
ICP				
Aluminum	ug/g	12400±2000	12200±2000	12100±2000
Antimony	ug/g	<0.2	0.4±0.3	<0.2
Arsenic	ug/g	2.2±0.1	2.0±0.1	2.0±0.1
Barium	ug/g	80±2	77±2	80±2
Beryllium	ug/g	0.6±0.1	0.6±0.1	0.6±0.1
Boron	ug/g	6±1	6±1	6±1
Cadmium	ug/g	0.4±0.1	0.3±0.1	0.2±0.1
Chromium	ug/g	22±3	22±3	22±3
Cobalt	ug/g	3.6±0.3	3.4±0.3	3.5±0.3
Copper	ug/g	7.8±2	7.6±2	8.1±2
Iron	ug/g	18200±500	18800±500	19300±500
Lead	ug/g	10±0.9	9.2±0.9	9.6±0.9
Manganese	ug/g	230±60	250±70	250±70
Molybdenum	ug/g	6.8±0.7	6.4±0.7	6.6±0.7
Nickel	ug/g	12±0.3	11±0.3	12±0.3
Selenium	ug/g	0.6±0.2	0.6±0.2	0.7±0.3
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	20±3	19±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.8±0.1	0.8±0.1	0.7±0.1
Titanium	ug/g	900±100	890±100	850±100
Uranium	ug/g	4.4±0.6	4.2±0.6	4.4±0.6
Vanadium	ug/g	25±1	25±1	25±1
Zinc	ug/g	42±4	41±4	41±4
Radio Chemistry				
Lead-210	Bq/g	0.42±0.1	0.37±0.1	0.38±0.1
Polonium-210	Bq/g	0.42±0.1	0.31±0.1	0.35±0.1
Radium-226	Bq/g	0.05±0.03	0.06±0.04	<0.01
Thorium-230	Bq/g	0.04±0.02	0.02±0.02	0.05±0.03

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36010 09/26/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

36011 09/28/2011 WOLLASTON LK/COCHRANE R, STN 1 SAMPLE 5D, SED 0-2 CM COMPOSITE *SEDIMENT*

36012 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36010	36011	36012
Inorganic Chemistry				
Loss on ignition	%	16.41±0.8	16.95±0.8	7.33±0.5
Moisture	%	92.14±0.7	92.50±0.7	84.98±0.7
ICP				
Aluminum	ug/g	12100±2000	11900±2000	3600±800
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.1±0.1	2.0±0.1	2.0±0.1
Barium	ug/g	82±2	80±2	29±1
Beryllium	ug/g	0.6±0.1	0.6±0.1	0.2±0.1
Boron	ug/g	6±1	5±1	3±1
Cadmium	ug/g	0.3±0.1	0.4±0.1	0.1±0.1
Chromium	ug/g	23±3	22±3	7.4±2
Cobalt	ug/g	3.4±0.3	3.3±0.3	1.2±0.2
Copper	ug/g	7.8±2	7.7±2	1.7±0.9
Iron	ug/g	20800±500	19900±500	7600±300
Lead	ug/g	9.3±0.9	9.3±0.9	2.8±0.5
Manganese	ug/g	280±70	240±70	260±70
Molybdenum	ug/g	5.6±0.7	4.9±0.6	0.4±0.2
Nickel	ug/g	11±0.3	11±0.3	2.5±0.1
Selenium	ug/g	0.5±0.2	0.6±0.2	0.5±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	20±3	19±3	20±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.8±0.1	0.7±0.1	0.2±0.1
Titanium	ug/g	920±100	880±100	230±60
Uranium	ug/g	4.3±0.6	4.2±0.6	0.3±0.2
Vanadium	ug/g	26±1	25±1	11±0.9
Zinc	ug/g	41±4	41±4	9.7±2
Radio Chemistry				
Lead-210	Bq/g	0.35±0.1	0.36±0.1	0.22±0.08
Polonium-210	Bq/g	0.37±0.1	0.33±0.1	0.14±0.06
Radium-226	Bq/g	<0.01	<0.01	<0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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36013 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*
36014 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*
36015 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36013	36014	36015
Inorganic Chemistry				
Loss on ignition	%	10.23±0.6	1.93±0.3	4.60±0.4
Moisture	%	88.22±0.7	50.44±0.6	75.27±0.7
ICP				
Aluminum	ug/g	3400±800	1200±400	1200±400
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	1.5±0.1	0.5±0.1	0.7±0.1
Barium	ug/g	30±1	11±0.7	15±0.8
Beryllium	ug/g	0.1±0.1	<0.1	<0.1
Boron	ug/g	3±1	2±1	1±1
Cadmium	ug/g	0.2±0.1	<0.1	<0.1
Chromium	ug/g	5.7±2	1.8±0.9	2.5±1
Cobalt	ug/g	1.1±0.2	0.2±0.2	0.3±0.2
Copper	ug/g	1.9±1	<0.5	0.7±0.6
Iron	ug/g	6000±300	1300±100	2100±200
Lead	ug/g	3.7±0.6	1.2±0.3	1.5±0.4
Manganese	ug/g	280±70	83±6	140±50
Molybdenum	ug/g	0.3±0.2	<0.1	0.1±0.1
Nickel	ug/g	4.6±0.2	0.7±0.1	1.3±0.1
Selenium	ug/g	0.3±0.2	<0.1	0.1±0.1
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	22±3	16±3	16±3
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.2±0.1	<0.1	<0.1
Titanium	ug/g	230±60	80±7	91±8
Uranium	ug/g	0.3±0.2	<0.1	0.1±0.1
Vanadium	ug/g	8.7±0.8	2.7±0.5	3.5±0.5
Zinc	ug/g	13±2	3.7±1	5.3±2
Radio Chemistry				
Lead-210	Bq/g	0.13±0.05	0.05±0.04	0.09±0.04
Polonium-210	Bq/g	0.16±0.07	0.04±0.02	0.10±0.05
Radium-226	Bq/g	0.01±0.01	0.04±0.03	0.01±0.01
Thorium-230	Bq/g	<0.02	<0.02	<0.02

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Mar 14, 2012

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36016 09/28/2011 ARMATAGE BAY, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*
36017 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36018 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36016	36017	36018
Inorganic Chemistry				
Loss on ignition	%	13.82±0.7	21.11±0.9	22.02±0.9
Moisture	%	90.90±0.7	93.45±0.7	93.71±0.8
ICP				
Aluminum	ug/g	3300±800	Not Reported	Not Reported
Antimony	ug/g	<0.2	Not Reported	Not Reported
Arsenic	ug/g	1.8±0.1	Not Reported	Not Reported
Barium	ug/g	43±1	Not Reported	Not Reported
Beryllium	ug/g	0.2±0.1	Not Reported	Not Reported
Boron	ug/g	3±1	Not Reported	Not Reported
Cadmium	ug/g	0.2±0.1	Not Reported	Not Reported
Chromium	ug/g	6.0±2	Not Reported	Not Reported
Cobalt	ug/g	1.2±0.2	Not Reported	Not Reported
Copper	ug/g	2.3±1	Not Reported	Not Reported
Iron	ug/g	6900±300	Not Reported	Not Reported
Lead	ug/g	4.0±0.6	Not Reported	Not Reported
Manganese	ug/g	290±70	Not Reported	Not Reported
Molybdenum	ug/g	0.3±0.2	Not Reported	Not Reported
Nickel	ug/g	3.4±0.2	Not Reported	Not Reported
Selenium	ug/g	0.6±0.2	Not Reported	Not Reported
Silver	ug/g	<0.1	Not Reported	Not Reported
Strontium	ug/g	24±3	Not Reported	Not Reported
Thallium	ug/g	<0.2	Not Reported	Not Reported
Tin	ug/g	0.2±0.1	Not Reported	Not Reported
Titanium	ug/g	200±60	Not Reported	Not Reported
Uranium	ug/g	0.3±0.2	Not Reported	Not Reported
Vanadium	ug/g	9.8±0.9	Not Reported	Not Reported
Zinc	ug/g	15±3	Not Reported	Not Reported
Radio Chemistry				
Lead-210	Bq/g	0.21±0.07	0.41±0.1	0.49±0.2
Polonium-210	Bq/g	0.27±0.1	0.38±0.1	0.47±0.2
Radium-226	Bq/g	0.02±0.02	0.02±0.02	0.04±0.03
Thorium-230	Bq/g	0.02±0.02	0.02±0.02	0.04±0.02

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Mar 14, 2012

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36019 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*
36020 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36021 09/30/2011 FOND DU LAC RIVER, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36019	36020	36021
Inorganic Chemistry				
Loss on ignition	%	21.08±0.9	21.27±0.9	20.80±0.9
Moisture	%	92.02±0.7	93.20±0.7	92.74±0.7
ICP				
Aluminum	ug/g	Not Reported	Not Reported	Not Reported
Antimony	ug/g	Not Reported	Not Reported	Not Reported
Arsenic	ug/g	Not Reported	Not Reported	Not Reported
Barium	ug/g	Not Reported	Not Reported	Not Reported
Beryllium	ug/g	Not Reported	Not Reported	Not Reported
Boron	ug/g	Not Reported	Not Reported	Not Reported
Cadmium	ug/g	Not Reported	Not Reported	Not Reported
Chromium	ug/g	Not Reported	Not Reported	Not Reported
Cobalt	ug/g	Not Reported	Not Reported	Not Reported
Copper	ug/g	Not Reported	Not Reported	Not Reported
Iron	ug/g	Not Reported	Not Reported	Not Reported
Lead	ug/g	Not Reported	Not Reported	Not Reported
Manganese	ug/g	Not Reported	Not Reported	Not Reported
Molybdenum	ug/g	Not Reported	Not Reported	Not Reported
Nickel	ug/g	Not Reported	Not Reported	Not Reported
Selenium	ug/g	Not Reported	Not Reported	Not Reported
Silver	ug/g	Not Reported	Not Reported	Not Reported
Strontium	ug/g	Not Reported	Not Reported	Not Reported
Thallium	ug/g	Not Reported	Not Reported	Not Reported
Tin	ug/g	Not Reported	Not Reported	Not Reported
Titanium	ug/g	Not Reported	Not Reported	Not Reported
Uranium	ug/g	Not Reported	Not Reported	Not Reported
Vanadium	ug/g	Not Reported	Not Reported	Not Reported
Zinc	ug/g	Not Reported	Not Reported	Not Reported
Radio Chemistry				
Lead-210	Bq/g	0.43±0.1	0.41±0.1	0.44±0.1
Polonium-210	Bq/g	0.44±0.2	0.48±0.2	0.48±0.2
Radium-226	Bq/g	0.02±0.02	0.03±0.02	0.04±0.03
Thorium-230	Bq/g	0.02±0.02	0.04±0.02	0.02±0.02

Results are reported on a dry basis.

SRC ANALYTICAL

Mar 14, 2012

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36022 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT*
36023 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 1D, SED 0-2 CM COMPOSITE *SEDIMENT*
36024 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36022	36023	36024
Inorganic Chemistry				
Loss on ignition	%	2.46±0.3	2.26±0.3	1.86±0.3
Moisture	%	43.06±0.5	40.63±0.5	38.59±0.5
ICP				
Aluminum	ug/g	8600±1000	7700±1000	7900±1000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	2.6±0.1	2.7±0.1	1.7±0.1
Barium	ug/g	55±1	48±1	47±1
Beryllium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Boron	ug/g	8±1	7±1	7±1
Cadmium	ug/g	<0.1	<0.1	<0.1
Chromium	ug/g	17±3	15±3	14±2
Cobalt	ug/g	2.7±0.3	2.5±0.2	2.6±0.3
Copper	ug/g	3.6±1	3.2±1	2.7±1
Iron	ug/g	10600±400	9900±400	9200±400
Lead	ug/g	4.4±0.6	4.2±0.6	4.0±0.6
Manganese	ug/g	220±60	200±60	180±60
Molybdenum	ug/g	0.5±0.2	0.5±0.2	0.4±0.2
Nickel	ug/g	6.6±0.2	6.3±0.2	5.7±0.2
Selenium	ug/g	0.8±0.3	0.7±0.3	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	30±3	29±3	32±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.4±0.1	0.4±0.1	0.4±0.1
Titanium	ug/g	720±100	650±100	780±100
Uranium	ug/g	38±2	32±2	23±1
Vanadium	ug/g	36±2	33±2	31±2
Zinc	ug/g	15±3	19±3	14±2
Radio Chemistry				
Lead-210	Bq/g	0.17±0.06	0.12±0.04	0.07±0.04
Polonium-210	Bq/g	0.14±0.06	0.12±0.05	0.12±0.05
Radium-226	Bq/g	0.09±0.05	0.06±0.04	<0.01
Thorium-230	Bq/g	5.0±0.9	4.1±0.8	2.8±0.6

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Mar 14, 2012

CanNorth, Canada North Environmental Services Limited

36025 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT*
36026 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36027 10/02/2011 CRACKINGSTONE INLET, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36025	36026	36027
Inorganic Chemistry				
Loss on ignition	%	1.83±0.3	3.73±0.4	4.15±0.4
Moisture	%	34.90±0.5	57.78±0.6	64.65±0.6
ICP				
Aluminum	ug/g	7600±1000	11800±2000	12500±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	4.9±0.2	9.8±0.3	3.7±0.1
Barium	ug/g	50±1	65±1	74±2
Beryllium	ug/g	0.3±0.1	0.5±0.1	0.4±0.1
Boron	ug/g	6±1	11±1	13±1
Cadmium	ug/g	<0.1	0.1±0.1	0.1±0.1
Chromium	ug/g	15±3	32±4	23±3
Cobalt	ug/g	2.6±0.3	3.8±0.3	3.7±0.3
Copper	ug/g	2.7±1	7.7±2	6.6±2
Iron	ug/g	10100±400	15300±500	15200±500
Lead	ug/g	4.0±0.6	11±0.9	7.0±0.7
Manganese	ug/g	210±60	220±60	370±80
Molybdenum	ug/g	0.5±0.2	1.4±0.4	0.8±0.3
Nickel	ug/g	5.5±0.2	9.7±0.3	10±0.3
Selenium	ug/g	0.5±0.2	1.1±0.3	1.1±0.3
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	28±3	39±4	47±4
Thallium	ug/g	<0.2	<0.2	<0.2
Tin	ug/g	0.3±0.1	0.6±0.1	0.6±0.1
Titanium	ug/g	640±100	880±100	990±100
Uranium	ug/g	25±1	67±2	54±2
Vanadium	ug/g	31±2	280±30	50±2
Zinc	ug/g	14±2	22±3	23±3
Radio Chemistry				
Lead-210	Bq/g	0.11±0.04	0.40±0.1	0.17±0.06
Polonium-210	Bq/g	0.13±0.06	0.47±0.2	0.21±0.08
Radium-226	Bq/g	0.01±0.01	0.51±0.2	0.10±0.05
Thorium-230	Bq/g	7.7±1	26±3	4.8±0.9

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SRC ANALYTICAL

Mar 14, 2012

CanNorth, Canada North Environmental Services Limited

36028	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 1, SED 0-2 CM COMPOSITE *SEDIMENT***
36029	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 2, SED 0-2 CM COMPOSITE *SEDIMENT***
36030	**10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 3, SED 0-2 CM COMPOSITE *SEDIMENT***

Analyte	Units	36028	36029	36030
Inorganic Chemistry				
Loss on ignition	%	12.46±0.7	8.68±0.6	16.84±0.8
Moisture	%	85.71±0.7	80.68±0.7	87.53±0.7
ICP				
Aluminum	ug/g	20900±3000	23800±3000	20300±3000
Antimony	ug/g	0.6±0.3	0.3±0.2	0.3±0.2
Arsenic	ug/g	5.3±0.2	4.5±0.2	7.5±0.2
Barium	ug/g	200±20	180±2	270±20
Beryllium	ug/g	0.7±0.1	0.8±0.2	0.7±0.1
Boron	ug/g	32±1	33±1	34±1
Cadmium	ug/g	0.3±0.1	0.3±0.1	0.4±0.1
Chromium	ug/g	32±4	34±4	30±3
Cobalt	ug/g	5.9±0.4	6.4±0.4	6.0±0.4
Copper	ug/g	21±3	21±3	21±3
Iron	ug/g	20800±500	20300±500	29300±600
Lead	ug/g	8.2±0.8	8.3±0.8	7.8±0.8
Manganese	ug/g	1000±100	530±90	1600±200
Molybdenum	ug/g	1.9±0.4	1.9±0.4	2.0±0.4
Nickel	ug/g	21±0.5	22±0.5	22±0.5
Selenium	ug/g	0.7±0.3	0.7±0.3	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	79±5	84±6	82±6
Thallium	ug/g	0.2±0.2	0.2±0.2	<0.2
Tin	ug/g	0.9±0.1	1.0±0.1	0.8±0.1
Titanium	ug/g	1200±200	1400±200	1200±200
Uranium	ug/g	8.1±0.8	6.8±0.7	8.7±0.8
Vanadium	ug/g	37±2	39±2	35±2
Zinc	ug/g	45±4	47±4	46±4
Radio Chemistry				
Lead-210	Bq/g	0.12±0.04	0.16±0.06	0.26±0.09
Polonium-210	Bq/g	0.16±0.07	0.12±0.05	0.26±0.1
Radium-226	Bq/g	0.08±0.04	0.14±0.07	0.09±0.05
Thorium-230	Bq/g	0.10±0.05	0.06±0.03	0.05±0.03

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

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Mar 14, 2012

CanNorth, Canada North Environmental Services Limited

36031 10/04/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 3D, SED 0-2 CM COMPOSITE *SEDIMENT*
36032 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 4, SED 0-2 CM COMPOSITE *SEDIMENT*
36033 10/05/2011 CHARLOT RIVER OUTLET, STN 1 SAMPLE 5, SED 0-2 CM COMPOSITE *SEDIMENT*

Analyte	Units	36031	36032	36033
Inorganic Chemistry				
Loss on ignition	%	16.20±0.8	13.13±0.7	11.00±0.6
Moisture	%	86.54±0.7	85.69±0.7	81.89±0.7
ICP				
Aluminum	ug/g	21600±3000	22500±3000	23400±3000
Antimony	ug/g	0.3±0.2	0.2±0.2	0.3±0.2
Arsenic	ug/g	5.7±0.2	3.9±0.2	4.7±0.2
Barium	ug/g	240±20	190±20	200±20
Beryllium	ug/g	0.8±0.2	0.7±0.1	0.7±0.1
Boron	ug/g	36±1	32±1	33±1
Cadmium	ug/g	0.3±0.1	0.3±0.1	0.3±0.1
Chromium	ug/g	32±4	32±4	33±4
Cobalt	ug/g	6.1±0.4	5.8±0.4	6.1±0.4
Copper	ug/g	23±3	20±3	22±3
Iron	ug/g	25100±600	19100±500	19900±500
Lead	ug/g	8.4±0.8	8.4±0.8	8.1±0.8
Manganese	ug/g	1000±100	620±100	450±90
Molybdenum	ug/g	1.7±0.4	1.2±0.3	1.7±0.4
Nickel	ug/g	22±0.5	20±0.4	21±0.5
Selenium	ug/g	0.7±0.3	0.6±0.2	0.6±0.2
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	88±6	84±6	85±6
Thallium	ug/g	<0.2	<0.2	0.2±0.2
Tin	ug/g	0.9±0.1	0.8±0.1	0.9±0.1
Titanium	ug/g	1200±200	1200±200	1300±200
Uranium	ug/g	9.5±0.9	8.1±0.8	7.0±0.7
Vanadium	ug/g	37±2	37±2	39±2
Zinc	ug/g	48±4	46±4	46±4
Radio Chemistry				
Lead-210	Bq/g	0.28±0.1	0.24±0.08	0.09±0.04
Polonium-210	Bq/g	0.27±0.1	0.25±0.1	0.14±0.06
Radium-226	Bq/g	0.08±0.04	0.05±0.03	0.05±0.03
Thorium-230	Bq/g	0.11±0.05	0.06±0.03	0.09±0.05

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

SRC Group # 2011-11076

SRC ANALYTICAL

Nov 18, 2011

422 Downey Road
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(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

---

* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Nov 18, 2011

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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1489

40199 10/28/2011 FOND DU LAC RIVER *WATER*
40200 10/28/2011 FOND DU LAC RIVER - 4D *WATER*

Analyte	Units	40199	40200
Inorganic Chemistry			
Bicarbonate	mg/L	21±4	17±4
Carbonate	mg/L	<1	<1
Chloride	mg/L	0.3±0.1	0.2±0.1
Hydroxide	mg/L	<1	<1
P. alkalinity	mg/L	<1	<1
pH	pH units	7.18±0.1	7.10±0.1
Specific conductivity	uS/cm	36±4	35±3
Sum of ions	mg/L	32±5	27±5
Total alkalinity	mg/L	17±2	14±2
Total hardness	mg/L	12±3	12±3
Ammonia as nitrogen	mg/L	0.01±0.01	<0.01
Nitrate	mg/L	<0.04	<0.04
Total Kjeldahl nitrogen	mg/L	0.15±0.09	0.17±0.1
Total nitrogen	mg/L	0.15	0.17
Organic carbon	mg/L	2.9±0.3	2.8±0.3
Fluoride	mg/L	0.06±0.02	0.06±0.02
Total dissolved solids	mg/L	30±5	30±5
Total suspended solids	mg/L	<1	<1
Turbidity	NTU	0.5±0.1	0.5±0.1
ICP			
Calcium	mg/L	3.4±0.4	3.3±0.4
Magnesium	mg/L	0.9±0.1	0.8±0.1
Potassium	mg/L	0.6±0.2	0.6±0.2

SRC ANALYTICAL

Nov 18, 2011

CanNorth, Canada North Environmental Services Limited

40199 10/28/2011 FOND DU LAC RIVER *WATER*
40200 10/28/2011 FOND DU LAC RIVER - 4D *WATER*

Analyte	Units	40199	40200
ICP			
Sodium	mg/L	1.4±0.2	1.3±0.1
Sulfate	mg/L	4.4±0.7	4.0±0.7
Phosphorus	mg/L	<0.01	<0.01
Aluminum	mg/L	0.012±0.002	0.0086±0.002
Antimony	mg/L	<0.0002	<0.0002
Arsenic	ug/L	<0.1	0.2±0.1
Barium	mg/L	0.0046±0.001	0.0047±0.001
Beryllium	mg/L	<0.0001	<0.0001
Boron	mg/L	<0.01	<0.01
Cadmium	mg/L	0.00001±0.00001	0.00001±0.00001
Chromium	mg/L	<0.0005	<0.0005
Cobalt	mg/L	<0.0001	<0.0001
Copper	mg/L	<0.0002	<0.0002
Iron	mg/L	0.030±0.003	0.032±0.004
Lead	mg/L	<0.0001	0.0002±0.0001
Manganese	mg/L	0.0064±0.0008	0.0066±0.0008
Mercury	ug/L	<0.01	<0.01
Molybdenum	mg/L	0.0012±0.0004	0.0012±0.0004
Nickel	mg/L	<0.0001	<0.0001
Selenium	mg/L	<0.0001	<0.0001
Silver	mg/L	<0.00005	<0.00005
Strontium	mg/L	0.012±0.002	0.012±0.002
Thallium	mg/L	<0.0002	<0.0002
Tin	mg/L	<0.0001	<0.0001
Titanium	mg/L	<0.0002	<0.0002
Uranium	ug/L	<0.1	<0.1
Vanadium	mg/L	<0.0001	<0.0001
Zinc	mg/L	<0.0005	<0.0005
Radio Chemistry			
Lead-210	Bq/L	<0.02	<0.02
Polonium-210	Bq/L	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005
Thorium-230	Bq/L	<0.01	<0.01

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SRC ANALYTICAL

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Nov 18, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK, S7L 6M7

This report was generated for samples included in SRC Group # 2011-11076

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	mg/L	0.0586	0.0590
Antimony	mg/L	0.00324	0.00330
Arsenic	ug/L	3.99	4.01
Barium	mg/L	0.150	0.151
Beryllium	mg/L	0.0130	0.0136
Boron	mg/L	0.0794	0.0807
Cadmium	mg/L	0.00413	0.00411
Calcium	mg/L	10	10
Chloride	mg/L	8.35	7.94
Chromium	mg/L	0.0456	0.0456
Cobalt	mg/L	0.0644	0.0655
Copper	mg/L	0.164	0.165
Fluoride	mg/L	1.72	1.68
Iron	mg/L	0.224	0.225
Lead	mg/L	0.00797	0.00805
Lead-210	Bq/L	22.0	21.9
Lead-210	Bq	6.44	6.20
Magnesium	mg/L	15	15
Manganese	mg/L	0.0473	0.0479
Mercury	ug/L	0.191	0.185
Molybdenum	mg/L	0.0660	0.0651
N, Ammonia	mg/L	1.10	1.13
N, Ammonia	mg/L	1.10	1.10
N, NO2 + NO3	mg/L	2.45	2.54
Nickel	mg/L	0.0814	0.0826
Organic carbon	mg/L	44.4	45.8
pH	pH units	4.00	4.01
Phosphorus	mg/L	5.75	5.56
Polonium-210	Bq/L	19.9	19.9
Polonium-210	Bq	1.61	1.57
Potassium	mg/L	21	21

QC Analysis	Units	Target Value	Obtained Value	
Radium-226	Bq/L	20.6	22.3	
Radium-226	Bq	2.13	1.92	
Selenium	mg/L	0.00843	0.00832	
Silver	mg/L	0.00933	0.00915	
Sodium	mg/L	14	14	
Specific Conductivity	uS/cm	330	326	
Strontium	mg/L	0.247	0.254	
Sulfate	mg/L	25	24	
Thallium	mg/L	0.00830	0.00838	
Thorium-230	Bq/L	24	6.1	* (1)
Thorium-232	Bq	0.216	0.120	* (2)
Tin	mg/L	0.0117	0.0114	
Titanium	mg/L	0.0147	0.0150	
Total alkalinity	mg/L	250	246.9	
Total Kjeldahl nitrogen	mg/L	0.838	0.877	
Total suspended solids	mg/L	100	98.8	
Turbidity	mg/L	11.2	11.2	
Uranium	ug/L	14.0	14.3	
Vanadium	mg/L	0.0445	0.0446	
Zinc	mg/L	0.379	0.382	

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	mg/L	<0.001	<0.001
Aluminum	mg/L	0.20	0.20
Boron	mg/L	0.10	0.098
Barium	mg/L	0.11	0.11
Beryllium	mg/L	<0.001	<0.001
Calcium	mg/L	3.3	3.3
Calcium	mg/L	3.4	3.3
Cadmium	mg/L	<0.001	<0.001
Chloride	mg/L	0.2	0.2
Cobalt	mg/L	<0.001	<0.001
Chromium	mg/L	0.039	0.039
Copper	mg/L	0.043	0.043
Fluoride	mg/L	0.06	0.06
Iron	mg/L	0.42	0.40
Mercury	ug/L	0.02	0.02
Potassium	mg/L	0.6	0.6
Potassium	mg/L	0.6	0.6
Magnesium	mg/L	0.8	1.0
Magnesium	mg/L	0.9	1.0
Manganese	mg/L	0.023	0.023
Molybdenum	mg/L	0.008	0.008
Sodium	mg/L	1.3	1.3
Sodium	mg/L	1.4	1.4

Duplicate Analysis	Units	First Result	Second Result
Ammonia as nitrogen	mg/L	0.07	0.06
Ammonia as nitrogen	mg/L	<0.01	<0.01
Nickel	mg/L	0.008	0.008
Nitrate	mg/L	<0.04	<0.04
Phosphorus	mg/L	3.0	3.0
Lead	mg/L	0.002	0.002
Lead-210	Bq/L	0.09	0.08
Lead-210	Bq/L	<0.02	<0.02
pH	pH units	7.05	7.12
Polonium-210	Bq/L	<0.005	<0.005
Polonium-210	Bq/L	<0.005	<0.005
Radium-226	Bq/L	<0.005	<0.005
Antimony	mg/L	0.0012	0.0013
Sulfate	mg/L	4.0	4.0
Sulfate	mg/L	4.4	4.1
Specific conductivity	uS/cm	38	38.0
Strontium	mg/L	0.70	0.70
Total dissolved solids	mg/L	28	29
Thorium-230	Bq/L	<0.01	0.02
Titanium	mg/L	0.004	0.004
Total Kjeldahl nitrogen	mg/L	0.80	0.78
Organic carbon	mg/L	4.1	4.1
Total alkalinity	mg/L	16	20
Total suspended solids	mg/L	20	16
Turbidity	NTU	1.65	1.60
Vanadium	mg/L	0.001	0.001
Zinc	mg/L	0.10	0.10

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	% Recovered
Cl, IC	95
Aluminum	103
Antimony	96
Arsenic	95
Barium	97
Beryllium	101
Boron	98
Cadmium	98
Calcium	96
Chromium	97
Cobalt	97
Copper	97
DOC	93
Iron	99
Lead	99
Magnesium	98

Spike Analysis	% Recovered
Manganese	98
Mercury	106
Molybdenum	98
NH3-N	92
NH3-N	94
Nickel	97
NO2+NO3-N	102
Phosphorus	101
Potassium	99
Selenium	101
Silver	95
Sodium	93
Strontium	99
Sulfate	91
Thallium	96
Tin	99
Titanium	99
TKN (N, total Kjeldahl)	96
Uranium	99
Vanadium	97
Zinc	96

*(1) (2) The Thorium-230 and Thorium-232 results for the Quality Control samples were outside the laboratory's specified limits. All additional quality control measures in the same batch were within specified limits therefore suspect problem was localized to the control. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable

Roxane Ortmann - Quality Control Supervisor

SRC Group # 2011-11077

Dec 16, 2011

SRC ANALYTICAL

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Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1489

40290 09/14/2011 FOND DU LAC - BLUEBERRIES 02 *VEGETATION*
40291 09/14/2011 FOND DU LAC - BLUEBERRIES 03 *VEGETATION*
40292 09/14/2011 FOND DU LAC - BLUEBERRIES 04 *VEGETATION*

Analyte	Units	40290	40291	40292
Inorganic Chemistry				
Moisture	%	85.50±0.7	86.68±0.7	84.60±0.7
ICP				
Aluminum	ug/g	9.5±4	6.2±3	7.0±3
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	12±0.2	13±0.2	13±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	6±1	7±1	8±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.02±0.01	<0.01	<0.01
Copper	ug/g	3.0±0.3	3.6±0.4	3.2±0.4
Iron	ug/g	8.2±2	9.7±2	11±2
Lead	ug/g	0.02±0.01	<0.01	0.03±0.02
Manganese	ug/g	150±40	140±40	140±40
Molybdenum	ug/g	0.2±0.1	0.4±0.2	0.4±0.2
Nickel	ug/g	0.67±0.05	0.75±0.05	0.80±0.06
Selenium	ug/g	<0.05	<0.05	0.08±0.06
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	1.3±0.2	1.4±0.2	1.6±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

40290 09/14/2011 FOND DU LAC - BLUEBERRIES 02 *VEGETATION*
40291 09/14/2011 FOND DU LAC - BLUEBERRIES 03 *VEGETATION*
40292 09/14/2011 FOND DU LAC - BLUEBERRIES 04 *VEGETATION*

Analyte	Units	40290	40291	40292
ICP				
Titanium	ug/g	0.08±0.05	0.08±0.05	0.08±0.05
Uranium	ug/g	0.02±0.01	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	6.0±2	7.5±2	7.0±2
Radio Chemistry				
Lead-210	Bq/g	0.007±0.004	0.010±0.004	0.011±0.004
Polonium-210	Bq/g	0.002±0.001	0.001±0.0009	0.004±0.002
Radium-226	Bq/g	0.004±0.003	0.003±0.002	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.002	<0.002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

Please note that radionuclide detection limits for vegetation can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. The detection limits reported are the lowest attainable for this group.

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

40293 09/14/2011 FOND DU LAC - BLUEBERRIES 05 *VEGETATION*
40294 09/13/2011 STONY RAPIDS - BLUEBERRIES 02 *VEGETATION*
40295 09/13/2011 STONY RAPIDS - BLUEBERRIES 03 *VEGETATION*

Analyte	Units	40293	40294	40295
Inorganic Chemistry				
Moisture	%	86.31±0.7	85.47±0.7	84.14±0.7
ICP				
Aluminum	ug/g	6.2±3	8.0±4	27±9
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	12±0.2	15±0.2	16±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	6±1	5±1	4±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	<0.01	0.07±0.01	0.01±0.01
Copper	ug/g	3.9±0.4	3.2±0.4	3.0±0.3
Iron	ug/g	9.3±2	12±2	23±3
Lead	ug/g	0.01±0.01	<0.01	0.02±0.01
Manganese	ug/g	130±30	100±30	130±30
Molybdenum	ug/g	0.4±0.2	0.2±0.1	<0.1
Nickel	ug/g	0.74±0.05	0.68±0.05	0.84±0.06
Selenium	ug/g	0.07±0.06	0.05±0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	1.3±0.2	1.7±0.3	2.9±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	0.10±0.05	0.12±0.06	1.6±0.3
Uranium	ug/g	0.01±0.01	<0.01	0.02±0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	7.1±2	6.4±2	5.1±2
Radio Chemistry				
Lead-210	Bq/g	0.006±0.004	0.005±0.004	0.012±0.004
Polonium-210	Bq/g	0.002±0.001	0.002±0.001	0.002±0.001
Radium-226	Bq/g	0.005±0.003	0.006±0.004	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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Results are reported on a dry basis.

Please note that radionuclide detection limits for vegetation can vary.

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40296 09/13/2011 STONY RAPIDS - BLUEBERRIES 04 *VEGETATION*
40297 09/13/2011 STONY RAPIDS - BLUEBERRIES 05 *VEGETATION*
40298 09/12/2011 BLACK LAKE - BLUEBERRIES 02 *VEGETATION*

Analyte	Units	40296	40297	40298
Inorganic Chemistry				
Moisture	%	85.08±0.7	86.57±0.7	86.69±0.7
ICP				
Aluminum	ug/g	37±10	10±4	8.6±4
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	8.9±0.2	13±0.2	15±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	3±1	4±1	5±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.02±0.01	0.01±0.01	0.01±0.01
Copper	ug/g	2.4±0.3	2.9±0.3	3.2±0.4
Iron	ug/g	32±4	11±2	11±2
Lead	ug/g	0.04±0.02	<0.01	0.02±0.01
Manganese	ug/g	70±30	180±40	130±30
Molybdenum	ug/g	<0.1	<0.1	0.2±0.1
Nickel	ug/g	0.82±0.06	0.74±0.05	0.68±0.05
Selenium	ug/g	<0.05	<0.05	0.08±0.06
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	2.5±0.3	2.0±0.3	4.4±0.4
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	1.4±0.2	0.19±0.08	0.08±0.05
Uranium	ug/g	0.01±0.01	0.02±0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	4.9±1	5.3±2	6.1±2
Radio Chemistry				
Lead-210	Bq/g	0.006±0.004	<0.004	0.005±0.004
Polonium-210	Bq/g	0.003±0.002	0.002±0.001	0.002±0.001
Radium-226	Bq/g	<0.0009	0.001±0.001	0.004±0.003
Thorium-230	Bq/g	<0.002	<0.002	<0.002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.

Please note that radionuclide detection limits for vegetation can vary.

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Dec 16, 2011

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40299 09/12/2011 BLACK LAKE - BLUEBERRIES 03 *VEGETATION*
40300 09/12/2011 BLACK LAKE - BLUEBERRIES 04 *VEGETATION*
40301 09/12/2011 BLACK LAKE - BLUEBERRIES 05 *VEGETATION*

Analyte	Units	40299	40300	40301
Inorganic Chemistry				
Moisture	%	85.12±0.7	86.04±0.7	87.39±0.7
ICP				
Aluminum	ug/g	7.9±4	8.6±4	6.0±3
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	13±0.2	11±0.2	15±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	5±1	3±1	5±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	<0.01	0.01±0.01	<0.01
Copper	ug/g	2.5±0.3	2.6±0.3	3.1±0.4
Iron	ug/g	8.6±2	11±2	10±2
Lead	ug/g	0.02±0.01	0.07±0.03	<0.01
Manganese	ug/g	120±30	180±40	220±40
Molybdenum	ug/g	0.1±0.1	0.1±0.1	0.2±0.1
Nickel	ug/g	0.54±0.05	0.56±0.05	0.38±0.05
Selenium	ug/g	<0.05	<0.05	0.06±0.06
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	3.5±0.4	2.1±0.3	1.2±0.2
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	0.06±0.05	0.10±0.05	0.15±0.07
Uranium	ug/g	<0.01	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	5.0±1	3.9±1	5.5±2
Radio Chemistry				
Lead-210	Bq/g	0.007±0.004	0.009±0.004	0.012±0.004
Polonium-210	Bq/g	0.001±0.0009	0.002±0.001	<0.0009
Radium-226	Bq/g	0.004±0.003	0.002±0.002	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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SRC ANALYTICAL

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40302 09/15/2011 WOLLASTON LAKE - BLUEBERRIES 02 *VEGETATION*
40303 09/15/2011 WOLLASTON LAKE - BLUEBERRIES 03 *VEGETATION*
40304 09/15/2011 WOLLASTON LAKE - BLUEBERRIES 04 *VEGETATION*

Analyte	Units	40302	40303	40304
Inorganic Chemistry				
Moisture	%	84.46±0.7	84.79±0.7	84.44±0.7
ICP				
Aluminum	ug/g	3.9±2	8.7±4	6.2±3
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	17±0.2	15±0.2	14±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	4±1	7±1	13±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	<0.01	<0.01	<0.01
Copper	ug/g	1.7±0.3	3.0±0.3	3.0±0.3
Iron	ug/g	5.4±2	12±2	9.5±2
Lead	ug/g	<0.01	0.01±0.01	<0.01
Manganese	ug/g	290±50	300±50	290±50
Molybdenum	ug/g	<0.1	<0.1	0.1±0.1
Nickel	ug/g	0.28±0.05	0.59±0.05	0.50±0.05
Selenium	ug/g	<0.05	0.05±0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	1.2±0.2	3.1±0.4	3.8±0.4
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	0.07±0.05	0.13±0.06	0.09±0.05
Uranium	ug/g	<0.01	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	3.0±1	5.5±2	5.1±2
Radio Chemistry				
Lead-210	Bq/g	0.009±0.004	0.008±0.004	0.010±0.004
Polonium-210	Bq/g	0.002±0.001	0.004±0.002	0.004±0.002
Radium-226	Bq/g	0.001±0.001	<0.001	0.006±0.004
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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Results are reported on a dry basis.

Please note that radionuclide detection limits for vegetation can vary.

SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

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Dec 16, 2011

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40305 09/15/2011 WOLLASTON LAKE - BLUEBERRIES 05 *VEGETATION*

Analyte	Units	40305
Inorganic Chemistry		
Moisture	%	85.11±0.7
ICP		
Aluminum	ug/g	5.9±3
Antimony	ug/g	<0.1
Arsenic	ug/g	<0.05
Barium	ug/g	15±0.2
Beryllium	ug/g	<0.01
Boron	ug/g	6±1
Cadmium	ug/g	<0.01
Chromium	ug/g	<0.5
Cobalt	ug/g	<0.01
Copper	ug/g	2.6±0.3
Iron	ug/g	9.0±2
Lead	ug/g	<0.01
Manganese	ug/g	260±50
Molybdenum	ug/g	0.1±0.1
Nickel	ug/g	0.59±0.05
Selenium	ug/g	<0.05
Silver	ug/g	<0.01
Strontium	ug/g	3.6±0.4
Thallium	ug/g	<0.05
Tin	ug/g	<0.05
Titanium	ug/g	0.09±0.05
Uranium	ug/g	<0.01
Vanadium	ug/g	<0.1
Zinc	ug/g	4.4±1
Radio Chemistry		
Lead-210	Bq/g	0.004±0.004
Polonium-210	Bq/g	0.004±0.002
Radium-226	Bq/g	<0.001
Thorium-230	Bq/g	<0.002

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SRC ANALYTICAL

Dec 16, 2011

CanNorth, Canada North Environmental Services Limited

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SRC ANALYTICAL

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Dec 16, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-11077

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value	
Aluminum	ug/g	1320	1050	
Antimony	ug/g	0.221	0.233	
Barium	ug/g	76.0	92.8	*(1)
Barium	ug/g	76.0	77.0	
Beryllium	ug/g	0.0670	0.0484	
Cadmium	ug/g	1.56	1.96	
Cobalt	ug/g	3.41	3.47	
Iron	ug/g	1650	1680	
Lead	ug/g	57.2	58.6	
Lead-210	Bq/L	22.0	23.4	
Lead-210	Bq	0.644	0.688	
Manganese	ug/g	1760	1610	
Molybdenum	ug/g	0.792	0.796	
Polonium-210	Bq/L	19.9	18.8	
Polonium-210	Bq	0.064	0.064	
Radium-226	Bq/L	20.6	18.4	
Radium-226	Bq	0.043	0.050	
Selenium	ug/g	0.700	0.836	
Silver	ug/g	0.200	0.223	
Strontium	ug/g	165	175	
Thallium	ug/g	0.118	0.153	
Thorium-230	Bq/L	24.0	23.1	
Thorium-232	Bq	0.216	0.168	

QC Analysis	Units	Target Value	Obtained Value	
Titanium	ug/g	68.8	32.1	*(2)
Titanium	ug/g	68.8	61.8	
Uranium	ug/g	0.900	0.820	
Vanadium	ug/g	3.50	3.42	
Zinc	ug/g	313	286	

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Aluminum	ug/g	8.6	8.6
Aluminum	ug/g	5.9	6.1
Arsenic	ug/g	<0.05	<0.05
Arsenic	ug/g	<0.05	<0.05
Boron	ug/g	5	5
Boron	ug/g	6	5
Barium	ug/g	16	13
Barium	ug/g	15	15
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Cadmium	ug/g	<0.01	<0.01
Cadmium	ug/g	<0.01	<0.01
Cobalt	ug/g	0.01	0.01
Cobalt	ug/g	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5
Chromium	ug/g	<0.5	<0.5
Copper	ug/g	3.2	3.1
Copper	ug/g	2.6	2.5
Iron	ug/g	11	9.8
Iron	ug/g	9.0	8.7
Manganese	ug/g	130	130
Manganese	ug/g	260	280
Molybdenum	ug/g	0.2	0.2
Molybdenum	ug/g	0.1	0.1
Nickel	ug/g	0.68	0.64
Nickel	ug/g	0.58	0.47
Lead	ug/g	0.02	0.02
Lead	ug/g	<0.01	<0.01
Lead-210	Bq/g	0.004	0.014
Lead-210	Bq/g	0.008	0.008

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This report was generated for samples included in SRC Group # 2011-11077 Dec 16, 2011

Duplicate Analysis	Units	First Result	Second Result
Lead-210	Bq/g	0.12	0.11
Polonium-210	Bq/g	0.003	0.001
Polonium-210	Bq/g	0.006	0.003
Radium-226	Bq/g	0.003	0.002
Radium-226	Bq/g	<0.001	<0.001
Antimony	ug/g	<0.1	<0.1
Antimony	ug/g	<0.1	<0.1
Selenium	ug/g	0.08	0.06
Selenium	ug/g	<0.05	<0.05
Tin	ug/g	<0.05	<0.05
Tin	ug/g	<0.05	<0.05
Strontium	ug/g	4.4	3.3
Strontium	ug/g	3.6	3.2
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.002	<0.002
Thorium-230	Bq/g	<0.002	<0.002
Titanium	ug/g	0.08	0.08
Titanium	ug/g	0.09	0.10
Thallium	ug/g	<0.05	<0.05
Thallium	ug/g	<0.05	<0.05
Uranium	ug/g	<0.01	<0.01
Uranium	ug/g	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1
Vanadium	ug/g	<0.1	<0.1
Zinc	ug/g	6.0	5.4
Zinc	ug/g	4.4	4.1

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	Percent Recovery
Thorium-230	84

*(1)(2) The Barium and Titanium results for the quality control sample were outside the laboratory's specified limits. The data was reviewed and a number of samples were reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-11078

Dec 20, 2011

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

SRC ANALYTICAL

Dec 20, 2011

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(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1489

40280 10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, SED 0-2 CM *SEDIMENT*
40281 10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, SED 0-2 CM *SEDIMENT*
40282 10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, SED 0-2 CM *SEDIMENT*

Analyte	Units	40280	40281	40282
Inorganic Chemistry				
Loss on ignition	%	21.45	25.12	23.88
Moisture	%	89.50±0.7	91.38±0.7	90.80±0.7
ICP				
Aluminum	ug/g	14200±2000	12600±2000	12100±2000
Antimony	ug/g	<0.2	<0.2	<0.2
Arsenic	ug/g	4.6±0.2	4.9±0.2	13±0.3
Barium	ug/g	170±2	170±2	240±3
Beryllium	ug/g	0.9±0.2	0.7±0.1	0.8±0.2
Boron	ug/g	1±1	1±1	<1
Cadmium	ug/g	0.4±0.1	0.5±0.1	0.7±0.1
Chromium	ug/g	24±3	21±3	21±3
Cobalt	ug/g	6.9±0.4	5.5±0.3	7.4±0.4
Copper	ug/g	12±2	12±2	11±2
Iron	ug/g	54300±800	49500±800	96900±1000
Lead	ug/g	7.9±0.8	13±1	11±0.9
Manganese	ug/g	2440±30	2190±30	4510±40
Molybdenum	ug/g	14±1	14±1	28±1
Nickel	ug/g	15±0.4	14±0.4	14±0.4
Selenium	ug/g	0.9±0.3	1.2±0.3	1.1±0.3
Silver	ug/g	<0.1	<0.1	<0.1
Strontium	ug/g	27±3	24±3	26±3
Thallium	ug/g	0.3±0.2	0.2±0.2	0.2±0.2
Tin	ug/g	0.7±0.1	0.6±0.1	0.6±0.1

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Dec 20, 2011

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40280	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, SED 0-2 CM *SEDIMENT***
40281	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, SED 0-2 CM *SEDIMENT***
40282	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, SED 0-2 CM *SEDIMENT***

Analyte	Units	40280	40281	40282
ICP				
Titanium	ug/g	810±100	630±100	640±100
Uranium	ug/g	5.0±0.6	5.2±0.7	5.5±0.7
Vanadium	ug/g	35±2	31±2	34±2
Zinc	ug/g	88±6	68±5	75±5
Radio Chemistry				
Lead-210	Bq/g	0.26±0.09	0.43±0.1	0.44±0.1
Polonium-210	Bq/g	0.35±0.1	0.44±0.2	0.57±0.2
Radium-226	Bq/g	0.12	0.06±0.04	0.06±0.04
Thorium-230	Bq/g	0.04±0.02	0.06±0.03	0.04±0.02

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Moisture for samples 40285 through 40289 could not be reported as the samples were inadvertently dried by the subcontract lab before subsampling for moisture analysis.
Results are reported on a dry basis.

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Dec 20, 2011

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40283 10/28/2011 FOND DU LAC RIVER, STN 1 SAMPLE 4, SED 0-2 CM *SEDIMENT*
40284 10/28/2011 FOND DU LAC RIVER, STN 1 SAMPLE 5, SED 0-2 CM *SEDIMENT*

Analyte	Units	40283	40284
Inorganic Chemistry			
Loss on ignition	%	24.04	22.19
Moisture	%	90.97±0.7	89.64±0.7
ICP			
Aluminum	ug/g	12900±2000	13400±2000
Antimony	ug/g	<0.2	<0.2
Arsenic	ug/g	11±0.3	9.1±0.3
Barium	ug/g	190±2	150±2
Beryllium	ug/g	0.8±0.2	0.9±0.2
Boron	ug/g	1±1	<1
Cadmium	ug/g	0.5±0.1	0.6±0.1
Chromium	ug/g	23±3	23±3
Cobalt	ug/g	6.7±0.4	7.2±0.4
Copper	ug/g	12±2	11±2
Iron	ug/g	80900±1000	83400±1000
Lead	ug/g	13±1	12±1
Manganese	ug/g	3090±30	2840±30
Molybdenum	ug/g	21±1	19±1
Nickel	ug/g	15±0.4	14±0.4
Selenium	ug/g	1.1±0.3	1.0±0.3
Silver	ug/g	<0.1	<0.1
Strontium	ug/g	25±3	25±3
Thallium	ug/g	0.2±0.2	0.2±0.2
Tin	ug/g	0.7±0.1	0.7±0.1
Titanium	ug/g	760±100	760±100
Uranium	ug/g	5.8±0.7	5.1±0.6
Vanadium	ug/g	35±2	37±2
Zinc	ug/g	75±5	83±6
Radio Chemistry			
Lead-210	Bq/g	0.44±0.1	0.42±0.1
Polonium-210	Bq/g	0.45±0.2	0.46±0.2
Radium-226	Bq/g	0.02±0.02	0.04±0.03
Thorium-230	Bq/g	<0.02	0.05±0.03

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Moisture for samples 40285 through 40289 could not be reported as the samples were inadvertently dried by the subcontract lab before subsampling

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for moisture analysis.
Results are reported on a dry basis.

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Dec 20, 2011

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40285	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 1, SED 0-5 CM *SEDIMENT***
40286	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 2, SED 0-5 CM *SEDIMENT***
40287	**10/26/2011 FOND DU LAC RIVER, STN 1 SAMPLE 3, SED 0-5 CM *SEDIMENT***

Analyte	Units	40285	40286	40287
Inorganic Chemistry				
Organic carbon	%	7.67	11.4	10.0
Moisture	%	Not Reported	Not Reported	Not Reported
Gravel	wt %	<0.10	<0.10	<0.10
Coarse Sand	wt %	19.5	1.13	0.88
Fine Sand	wt %	5.04	1.39	2.68
Silt	wt %	67.4	90.2	90.5
Clay	wt %	8.03	7.26	5.97

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Organic carbon was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

Moisture for samples 40285 through 40289 could not be reported as the samples were inadvertently dried by the subcontract lab before subsampling for moisture analysis.
Results are reported on a dry basis.

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40288 10/28/2011 FOND DU LAC RIVER, STN 1 SAMPLE 4, SED 0-5 CM *SEDIMENT*
40289 10/28/2011 FOND DU LAC RIVER, STN 1 SAMPLE 5, SED 0-5 CM *SEDIMENT*

Analyte	Units	40288	40289
Inorganic Chemistry			
Organic carbon	%	10.6	10.1
Moisture	%	Not Reported	Not Reported
Gravel	wt %	<0.10	<0.10
Coarse Sand	wt %	1.02	1.17
Fine Sand	wt %	2.96	6.03
Silt	wt %	91.2	88.5
Clay	wt %	4.88	4.29

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Organic carbon was subcontracted to ALS Laboratories
Gravel was subcontracted to ALS Laboratories
Coarse Sand was subcontracted to ALS Laboratories
Fine Sand was subcontracted to ALS Laboratories
Silt was subcontracted to ALS Laboratories
Clay was subcontracted to ALS Laboratories

Moisture for samples 40285 through 40289 could not be reported as the samples were inadvertently dried by the subcontract lab before subsampling for moisture analysis.
Results are reported on a dry basis.

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Dec 20, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-11078

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	ug/g	23600	21300
Antimony	ug/g	6.11	4.92
Arsenic	ug/g	16.8	16.6
Barium	ug/g	91.9	86.3
Beryllium	ug/g	0.710	0.604
Boron	ug/g	6.31	3.60
Cadmium	ug/g	0.300	0.310
Chromium	ug/g	40.8	34.6
Cobalt	ug/g	14.3	13.1
Copper	ug/g	44.7	43.9
Iron	ug/g	40500	42300
Lead	ug/g	13.3	14.5
Lead-210	Bq/L	22.0	24.5
Lead-210	Bq	1.61	1.64
Manganese	ug/g	1170	1090
Molybdenum	ug/g	0.727	0.709
Nickel	ug/g	19.7	18.8
Polonium-210	Bq/L	19.9	21.7
Polonium-210	Bq	1.61	1.54
Radium-226	Bq	0.043	0.047
Selenium	ug/g	0.400	0.393
Silver	ug/g	0.215	0.203
Strontium	ug/g	25.5	20.7

QC Analysis	Units	Target Value	Obtained Value
Thallium	ug/g	0.160	0.152
Thorium-230	Bq/L	24.0	26.1
Thorium-232	Bq	0.216	0.246
Tin	ug/g	1.40	1.22
Titanium	ug/g	1770	1620
Uranium	ug/g	1.06	1.15
Vanadium	ug/g	75.2	66.6
Zinc	ug/g	80.1	75.7

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.1	<0.1
Aluminum	ug/g	13400	13900
Arsenic	ug/g	9.1	9.4
Boron	ug/g	<1	<1
Barium	ug/g	150	160
Beryllium	ug/g	0.9	1.0
Cadmium	ug/g	0.6	0.6
Cobalt	ug/g	7.2	7.3
Chromium	ug/g	23	24
Copper	ug/g	11	11
Iron	ug/g	83400	84200
Manganese	ug/g	2840	2930
Molybdenum	ug/g	19	20
Nickel	ug/g	14	15
Lead	ug/g	12	12
Lead-210	Bq/g	0.41	0.44
Polonium-210	Bq/g	0.03	0.02
Polonium-210	Bq/g	0.47	0.44
Radium-226	Bq/g	0.03	0.04
Antimony	ug/g	<0.2	<0.2
Selenium	ug/g	1.0	1.0
Tin	ug/g	0.6	0.7
Strontium	ug/g	24	26
Thorium-230	Bq/g	4.1	4.2
Thorium-230	Bq/g	0.06	0.04
Titanium	ug/g	760	920
Thallium	ug/g	0.2	0.2
Uranium	ug/g	5.1	5.4
Vanadium	ug/g	37	39

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This report was generated for samples included in SRC Group # 2011-11078 Dec 20, 2011

Duplicate Analysis	**Units**	**First Result**	**Second Result**
Zinc	ug/g	83	85

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	**Percent Recovery**
Polonium-210	114
Radium-226	89
Thorium-230	110

All quality control results were within the specified limits and considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-11383

Feb 08, 2012

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CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-10-2011 Client P.O.: PROJ#1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-10-2011 Client P.O.: PROJ#1489

41694 09/22/2011 BLACK LAKE - SP 1-1 - LT01 *FISH FLESH*
41695 09/22/2011 BLACK LAKE - SP 1-1 - LT02 *FISH FLESH*
41696 09/22/2011 BLACK LAKE - SP 1-1 - LT03 *FISH FLESH*

Analyte	Units	41694	41695	41696
Inorganic Chemistry				
Mercury	ug/g	0.45±0.2	0.41±0.2	0.37±0.2
Moisture	%	77.19±0.7	77.72±0.7	73.93±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.05±0.01	0.06±0.01	0.07±0.01
Barium	ug/g	0.02±0.01	0.03±0.01	0.01±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	<0.002
Copper	ug/g	0.27±0.05	0.41±0.06	0.31±0.05
Iron	ug/g	1.9±1	3.3±1	2.0±1
Lead	ug/g	<0.002	0.004±0.003	<0.002
Manganese	ug/g	0.06±0.03	0.08±0.04	0.08±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.11±0.03	0.15±0.04	0.15±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.10±0.04	0.07±0.04	0.09±0.04
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01

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41694 09/22/2011 BLACK LAKE - SP 1-1 - LT01 *FISH FLESH*
41695 09/22/2011 BLACK LAKE - SP 1-1 - LT02 *FISH FLESH*
41696 09/22/2011 BLACK LAKE - SP 1-1 - LT03 *FISH FLESH*

Analyte	Units	41694	41695	41696
ICP				
Titanium	ug/g	0.08±0.02	0.09±0.03	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	2.9±0.5	4.7±0.6	2.5±0.5
Radio Chemistry				
Lead-210	Bq/g	0.002±0.001	<0.001	0.002±0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00004	<0.00006	<0.00007
Thorium-230	Bq/g	<0.00009	<0.0001	0.0001±0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on an "as received" basis.
Please note that radionuclide detection limits for biological tissue samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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41697 09/22/2011 BLACK LAKE - SP 1 -1 - LT04 *FISH FLESH*
41698 09/22/2011 BLACK LAKE - SP 1 -1 - LT05 *FISH FLESH*
41699 09/22/2011 BLACK LAKE - SP 1 -1 - LW06 *FISH FLESH*

Analyte	Units	41697	41698	41699
Inorganic Chemistry				
Mercury	ug/g	0.33±0.2	0.37±0.2	0.16±0.09
Moisture	%	76.78±0.7	77.42±0.7	75.22±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.05±0.01	0.10±0.01	0.25±0.01
Barium	ug/g	<0.01	0.03±0.01	0.06±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.002±0.002	0.002±0.002	0.003±0.002
Copper	ug/g	0.22±0.04	1.0±0.09	0.24±0.05
Iron	ug/g	4.5±1	6.0±2	2.3±1
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.08±0.04	0.09±0.04	0.18±0.06
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.11±0.03	0.13±0.03	0.30±0.05
Silver	ug/g	<0.002	0.005±0.003	<0.002
Strontium	ug/g	0.05±0.03	0.13±0.05	0.79±0.1
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.08±0.02	0.08±0.02
Uranium	ug/g	<0.001	<0.001	0.002±0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	2.2±0.4	5.9±0.7	3.9±0.6
Radio Chemistry				
Lead-210	Bq/g	0.001±0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	0.0002±0.0002
Radium-226	Bq/g	<0.00005	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on an "as received" basis.
Please note that radionuclide detection limits for biological tissue

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samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 08, 2012

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41700 09/22/2011 BLACK LAKE - SP 1 -1 - LW07 *FISH FLESH*
41701 09/22/2011 BLACK LAKE - SP 1 -1 - LW08 *FISH FLESH*
41702 09/22/2011 BLACK LAKE - SP 1 -1 - LW09 *FISH FLESH*

Analyte	Units	41700	41701	41702
Inorganic Chemistry				
Mercury	ug/g	0.13±0.08	0.14±0.08	0.06±0.03
Moisture	%	76.01±0.7	76.93±0.7	75.27±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.27±0.01	0.40±0.02	0.14±0.01
Barium	ug/g	0.13±0.01	0.09±0.01	<0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.005±0.002	<0.002	0.003±0.002
Copper	ug/g	0.21±0.04	0.12±0.03	0.17±0.04
Iron	ug/g	2.9±1	2.5±1	1.4±0.8
Lead	ug/g	0.002±0.002	<0.002	<0.002
Manganese	ug/g	0.39±0.08	0.22±0.06	0.06±0.03
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	0.01±0.01	<0.01	<0.01
Selenium	ug/g	0.35±0.05	0.25±0.05	0.36±0.05
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.24±0.07	1.2±0.1	0.28±0.07
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.09±0.03	0.08±0.02	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	4.6±0.6	3.5±0.5	4.7±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	0.0005±0.0003	0.0007±0.0004
Radium-226	Bq/g	<0.00006	0.00009±0.00008	<0.00007
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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Please note that radionuclide detection limits for biological tissue

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samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 08, 2012

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41703 09/22/2011 BLACK LAKE - SP 1 -1 - LW10 *FISH FLESH*
41704 09/24/2011 FOND DU LAC - SP 1-1 - LT01 *FISH FLESH*
41705 09/24/2011 FOND DU LAC - SP 1-1 - LT02 *FISH FLESH*

Analyte	Units	41703	41704	41705
Inorganic Chemistry				
Mercury	ug/g	0.21±0.1	0.26±0.2	0.30±0.2
Moisture	%	75.79±0.7	76.91±0.7	76.77±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.37±0.01	0.17±0.01	0.08±0.01
Barium	ug/g	0.02±0.01	<0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.003±0.002	<0.002	<0.002
Copper	ug/g	0.14±0.04	0.17±0.04	0.31±0.05
Iron	ug/g	1.5±0.9	2.1±1	2.1±1
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.09±0.04	0.09±0.04	0.08±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.31±0.05	0.17±0.04	0.12±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.22±0.06	0.11±0.05	0.16±0.05
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.09±0.03
Uranium	ug/g	<0.001	<0.001	0.001±0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.3±0.5	3.0±0.5	3.7±0.6
Radio Chemistry				
Lead-210	Bq/g	0.001±0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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Please note that radionuclide detection limits for biological tissue

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41706 09/24/2011 FOND DU LAC - SP 1-1 - LT03 *FISH FLESH*
41707 09/24/2011 FOND DU LAC - SP 1 -1 - LT04 *FISH FLESH*
41708 09/24/2011 FOND DU LAC - SP 1 -1 - LT05 *FISH FLESH*

Analyte	Units	41706	41707	41708
Inorganic Chemistry				
Mercury	ug/g	0.24±0.2	0.10±0.04	0.23±0.2
Moisture	%	74.35±0.7	75.75±0.7	71.88±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.10±0.01	0.05±0.01	0.12±0.01
Barium	ug/g	0.01±0.01	0.66±0.3	0.01±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	<0.002
Copper	ug/g	0.40±0.06	0.19±0.04	0.40±0.06
Iron	ug/g	3.2±1	1.8±0.9	2.8±1
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.09±0.04	0.10±0.04	0.08±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.16±0.04	0.16±0.04	0.13±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.18±0.06	0.20±0.06	0.18±0.06
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.09±0.03	0.10±0.03	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	4.2±0.6	3.2±0.5	3.9±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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Please note that radionuclide detection limits for biological tissue

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41709 09/24/2011 FOND DU LAC - SP 1 -1 - LW06 *FISH FLESH*
41710 09/24/2011 FOND DU LAC - SP 1 -1 - LW07 *FISH FLESH*
41711 09/24/2011 FOND DU LAC - SP 1 -1 - LW08 *FISH FLESH*

Analyte	Units	41709	41710	41711
Inorganic Chemistry				
Mercury	ug/g	0.14±0.08	0.12±0.08	0.14±0.08
Moisture	%	73.98±0.7	78.34±0.7	76.86±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.40±0.02	0.19±0.01	0.20±0.01
Barium	ug/g	0.06±0.01	0.04±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	0.002±0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.003±0.002	0.005±0.002	0.003±0.002
Copper	ug/g	0.14±0.04	0.18±0.04	0.12±0.03
Iron	ug/g	1.7±0.9	2.9±1	1.3±0.8
Lead	ug/g	<0.002	0.002±0.002	<0.002
Manganese	ug/g	0.17±0.06	0.13±0.05	0.07±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.25±0.05	0.15±0.04	0.22±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	1.0±0.1	0.88±0.1	0.55±0.4
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.09±0.03
Uranium	ug/g	0.002±0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.0±0.5	4.2±0.6	3.2±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	0.0002±0.0002
Radium-226	Bq/g	<0.00008	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0002	<0.0001	<0.0001

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41712 09/24/2011 FOND DU LAC - SP 1 -1 - LW09 *FISH FLESH*
41713 09/24/2011 FOND DU LAC - SP 1 -1 - LW10 *FISH FLESH*
41714 09/27/2011 WOLLASTON LAKE - SP 1-1 - LT01 *FISH FLESH*

Analyte	Units	41712	41713	41714
Inorganic Chemistry				
Mercury	ug/g	0.18±0.09	0.18±0.09	0.15±0.08
Moisture	%	75.56±0.7	75.69±0.7	78.93±0.7
ICP				
Aluminum	ug/g	<0.5	1.3±1	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.52±0.02	0.29±0.01	0.06±0.01
Barium	ug/g	<0.01	0.03±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	0.006±0.004	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.003±0.002	0.015±0.002	<0.002
Copper	ug/g	0.22±0.04	0.28±0.05	0.62±0.07
Iron	ug/g	2.6±1	6.0±2	6.0±2
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.14±0.05	0.08±0.04	0.10±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	0.02±0.01	0.01±0.01
Selenium	ug/g	0.20±0.04	0.29±0.05	0.17±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.15±0.05	0.36±0.08	0.09±0.04
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.10±0.03	0.09±0.03
Uranium	ug/g	<0.001	0.003±0.002	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.0±0.5	4.2±0.6	5.5±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00007	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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41715 09/27/2011 WOLLASTON LAKE - SP 1-1 - LT02 *FISH FLESH*
41716 09/27/2011 WOLLASTON LAKE - SP 1-1 - LT03 *FISH FLESH*
41717 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LT04 *FISH FLESH*

Analyte	Units	41715	41716	41717
Inorganic Chemistry				
Mercury	ug/g	0.16±0.09	0.16±0.09	0.20±0.1
Moisture	%	75.50±0.7	76.46±0.7	75.65±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.03±0.01	0.04±0.01	0.02±0.01
Barium	ug/g	0.02±0.01	0.02±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	<0.002
Copper	ug/g	0.48±0.06	0.53±0.07	0.31±0.05
Iron	ug/g	4.0±1	2.6±1	1.8±0.9
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.10±0.04	0.07±0.04	0.06±0.03
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	0.02±0.01	<0.01
Selenium	ug/g	0.28±0.05	0.19±0.04	0.18±0.04
Silver	ug/g	0.003±0.002	<0.002	<0.002
Strontium	ug/g	0.22±0.06	0.09±0.04	0.15±0.05
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.09±0.03	0.09±0.03	0.09±0.03
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	6.6±0.7	3.9±0.6	3.1±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00006	0.0003±0.0002
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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41718 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LT05 *FISH FLESH*
41719 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LW06 *FISH FLESH*
41720 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LW07 *FISH FLESH*

Analyte	Units	41718	41719	41720
Inorganic Chemistry				
Mercury	ug/g	0.12±0.08	0.06±0.03	0.05±0.03
Moisture	%	75.48±0.7	73.60±0.7	75.29±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.04±0.01	0.24±0.01	0.13±0.01
Barium	ug/g	<0.01	0.11±0.01	0.01±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	<0.002
Copper	ug/g	0.30±0.05	0.26±0.05	0.16±0.04
Iron	ug/g	1.9±1	2.2±1	1.3±0.8
Lead	ug/g	<0.002	0.002±0.002	<0.002
Manganese	ug/g	0.07±0.04	0.15±0.05	0.09±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.19±0.04	0.39±0.06	0.41±0.06
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.05±0.03	0.47±0.09	0.08±0.04
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.07±0.02	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.3±0.5	5.1±0.6	3.0±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	0.0003±0.0002	0.0004±0.0002
Radium-226	Bq/g	0.00009±0.00008	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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41721 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LW08 *FISH FLESH*
41722 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LW09 *FISH FLESH*
41723 09/27/2011 WOLLASTON LAKE - SP 1 -1 - LW10 *FISH FLESH*

Analyte	Units	41721	41722	41723
Inorganic Chemistry				
Mercury	ug/g	0.05±0.03	0.05±0.03	0.08±0.04
Moisture	%	75.27±0.7	76.01±0.7	73.60±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.17±0.01	0.09±0.01	0.18±0.01
Barium	ug/g	0.01±0.01	0.02±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	0.005±0.002	<0.002
Copper	ug/g	0.18±0.04	0.12±0.03	0.14±0.04
Iron	ug/g	1.5±0.9	3.1±1	1.4±0.8
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.09±0.04	0.12±0.05	0.10±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.34±0.05	0.38±0.06	0.38±0.06
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.11±0.05	0.24±0.07	0.14±0.05
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.11±0.03	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.8±0.6	4.7±0.6	4.3±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	0.0002±0.0002	0.0004±0.0002
Radium-226	Bq/g	<0.00008	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0002	<0.0001	<0.0001

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41724 10/06/2011 STONY RAPIDS - SP 1-1 - LT01 *FISH FLESH*
41725 10/06/2011 STONY RAPIDS - SP 1-1 - LT02 *FISH FLESH*
41726 10/06/2011 STONY RAPIDS - SP 1-1 - LT03 *FISH FLESH*

Analyte	Units	41724	41725	41726
Inorganic Chemistry				
Mercury	ug/g	0.27±0.1	0.46±0.2	0.57±0.2
Moisture	%	77.77±0.7	77.90±0.7	77.43±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.02±0.01	0.06±0.01	0.05±0.01
Barium	ug/g	<0.01	<0.01	0.01±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	<0.002
Copper	ug/g	0.28±0.05	0.20±0.04	0.22±0.04
Iron	ug/g	1.9±1	1.7±0.9	1.5±0.9
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.09±0.04	0.09±0.04	0.08±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	0.01±0.01	<0.01	<0.01
Selenium	ug/g	0.10±0.03	0.11±0.03	0.09±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.10±0.04	0.09±0.04	0.21±0.06
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.07±0.02	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	4.7±0.6	3.1±0.5	3.4±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	0.0004±0.0002
Radium-226	Bq/g	<0.00007	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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41727 10/06/2011 STONY RAPIDS - SP 1 -1 - LT04 *FISH FLESH*
41728 10/06/2011 STONY RAPIDS - SP 1 -1 - LT05 *FISH FLESH*
41729 10/06/2011 STONY RAPIDS - SP 1 -1 - LW06 *FISH FLESH*

Analyte	Units	41727	41728	41729
Inorganic Chemistry				
Mercury	ug/g	0.38±0.2	0.49±0.2	0.23±0.2
Moisture	%	76.77±0.7	73.64±0.7	76.78±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.06±0.01	0.09±0.01	0.06±0.01
Barium	ug/g	<0.01	0.01±0.01	0.01±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	<0.002	<0.002	0.005±0.002
Copper	ug/g	0.22±0.04	0.17±0.04	0.36±0.05
Iron	ug/g	1.6±0.9	1.2±0.8	3.5±1
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.12±0.05	0.06±0.03	0.09±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	0.05±0.01
Selenium	ug/g	0.14±0.04	0.16±0.04	0.13±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.23±0.06	0.09±0.04	0.23±0.06
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.07±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	3.3±0.5	2.5±0.5	4.0±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00006	<0.00008
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on an "as received" basis.
Please note that radionuclide detection limits for biological tissue

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samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 08, 2012

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41730 10/06/2011 STONY RAPIDS - SP 1 -1 - LW07 *FISH FLESH*
41731 10/06/2011 STONY RAPIDS - SP 1 -1 - LW08 *FISH FLESH*
41732 10/06/2011 STONY RAPIDS - SP 1 -1 - LW09 *FISH FLESH*

Analyte	Units	41730	41731	41732
Inorganic Chemistry				
Mercury	ug/g	0.06±0.03	0.15±0.08	0.37±0.2
Moisture	%	78.07±0.7	78.94±0.7	77.19±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.03±0.01	0.03±0.01	0.07±0.01
Barium	ug/g	0.01±0.01	0.09±0.01	<0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	<0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.009±0.002	0.012±0.002	0.004±0.002
Copper	ug/g	0.15±0.04	0.14±0.04	0.26±0.05
Iron	ug/g	2.0±1	2.0±1	2.2±1
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.10±0.04	0.18±0.06	0.08±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	0.01±0.01	<0.01
Selenium	ug/g	0.10±0.03	0.15±0.04	0.27±0.05
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.26±0.07	2.0±0.2	0.12±0.05
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.07±0.02
Uranium	ug/g	<0.001	0.001±0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	4.0±0.6	4.1±0.6	8.3±0.8
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	<0.0002	<0.0002
Radium-226	Bq/g	0.00010±0.00008	0.00006±0.00005	0.0001±0.0001
Thorium-230	Bq/g	<0.00009	<0.00008	<0.0002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on an "as received" basis.
Please note that radionuclide detection limits for biological tissue

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samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 08, 2012

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41733 10/06/2011 STONY RAPIDS - SP 1 -1 - LW10 *FISH FLESH*

Analyte	Units	41733
Inorganic Chemistry		
Mercury	ug/g	0.06±0.03
Moisture	%	75.50±0.7
ICP		
Aluminum	ug/g	<0.5
Antimony	ug/g	<0.02
Arsenic	ug/g	0.02±0.01
Barium	ug/g	0.02±0.01
Beryllium	ug/g	<0.002
Boron	ug/g	<0.2
Cadmium	ug/g	<0.002
Chromium	ug/g	<0.1
Cobalt	ug/g	0.008±0.002
Copper	ug/g	0.19±0.04
Iron	ug/g	1.7±0.9
Lead	ug/g	<0.002
Manganese	ug/g	0.10±0.04
Molybdenum	ug/g	<0.02
Nickel	ug/g	<0.01
Selenium	ug/g	0.12±0.03
Silver	ug/g	<0.002
Strontium	ug/g	0.24±0.07
Thallium	ug/g	<0.01
Tin	ug/g	<0.01
Titanium	ug/g	0.09±0.03
Uranium	ug/g	<0.001
Vanadium	ug/g	<0.02
Zinc	ug/g	4.7±0.6
Radio Chemistry		
Lead-210	Bq/g	<0.001
Polonium-210	Bq/g	<0.0002
Radium-226	Bq/g	<0.00006
Thorium-230	Bq/g	<0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on an "as received" basis.
Please note that radionuclide detection limits for biological tissue

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samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

SRC ANALYTICAL

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Feb 08, 2012

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-11383

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value	
Aluminum	ug/g	1110	1200	
Arsenic	ug/g	7.34	7.19	
Cadmium	ug/g	0.302	0.300	
Chromium	ug/g	1.53	1.41	
Copper	ug/g	14.8	14.8	
Iron	ug/g	302	326	
Lead	ug/g	0.270	0.222	
Lead-210	Bq/L	22.0	21.5	
Lead-210	Bq	1.61	1.70	
Lead-210	Bq/L	22.0	20.4	
Lead-210	Bq	0.322	0.356	
Lead-210	Bq/L	22.0	18.1	
Lead-210	Bq	0.644	0.304	*(1)
Lead-210	Bq/L	22.0	20.6	
Lead-210	Bq	6.64	7.40	
Manganese	ug/g	3.02	2.85	
Mercury	ug/g	0.382	0.436	
Mercury	ug/g	0.382	0.467	
Nickel	ug/g	1.28	1.14	
Polonium-210	Bq/L	22.0	22.3	
Polonium-210	Bq	1.61	1.60	
Polonium-210	Bq/L	22.0	20.7	
Polonium-210	Bq	0.322	0.277	

QC Analysis	Units	Target Value	Obtained Value
Polonium-210	Bq/L	22.0	19.1
Polonium-210	Bq	0.064	0.068
Radium-226	Bq/L	20.1	19.9
Radium-226	Bq	2.13	1.84
Radium-226	Bq	2.13	1.88
Radium-226	Bq/L	20.1	23.2
Radium-226	Bq/L	20.1	22.5
Radium-226	Bq	0.043	0.047
Radium-226	Bq/L	20.1	17.7
Radium-226	Bq	0.427	0.423
Selenium	ug/g	3.63	3.82
Silver	ug/g	0.0240	0.0239
Thorium-230	Bq/L	24.0	21.3
Thorium-230	Bq/L	24.0	26.2
Thorium-232	Bq	0.216	0.228
Thorium-232	Bq	0.216	0.215
Zinc	ug/g	46.5	48.2

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Arsenic	ug/g	0.14	0.13
Arsenic	ug/g	0.17	0.19
Arsenic	ug/g	0.20	0.25
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Barium	ug/g	<0.01	0.02
Barium	ug/g	0.02	0.04
Barium	ug/g	0.01	0.01
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002

Duplicate Analysis	Units	First Result	Second Result
Cadmium	ug/g	<0.002	<0.002
Cobalt	ug/g	0.003	0.003
Cobalt	ug/g	<0.002	<0.002
Cobalt	ug/g	0.003	0.003
Chromium	ug/g	<0.1	<0.1
Chromium	ug/g	<0.1	<0.1
Chromium	ug/g	<0.1	<0.1
Copper	ug/g	0.12	0.10
Copper	ug/g	0.18	0.15
Copper	ug/g	0.17	0.16
Iron	ug/g	1.4	1.7
Iron	ug/g	1.5	1.3
Iron	ug/g	1.2	1.4
Mercury	ug/g	0.06	0.06
Mercury	ug/g	0.14	0.13
Mercury	ug/g	0.05	0.05
Manganese	ug/g	0.07	0.12
Manganese	ug/g	0.09	0.10
Manganese	ug/g	0.06	0.07
Molybdenum	ug/g	<0.02	<0.02
Molybdenum	ug/g	<0.02	<0.02
Molybdenum	ug/g	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01
Nickel	ug/g	<0.01	0.03
Nickel	ug/g	<0.01	0.02
Lead	ug/g	<0.002	<0.002
Lead	ug/g	<0.002	<0.002
Lead	ug/g	<0.002	<0.002
Lead-210	Bq/g	<0.001	0.002
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.001	<0.001
Lead-210	Bq/g	<0.02	<0.02
Lead-210	Bq/g	<0.02	<0.02
Lead-210	Bq/g	<0.02	<0.02
Polonium-210	Bq/g	<0.0002	<0.0002
Polonium-210	Bq/g	<0.0002	<0.0002
Polonium-210	Bq/g	<0.0002	<0.0002
Polonium-210	Bq/g	<0.0002	<0.0002
Polonium-210	Bq/g	<0.005	<0.005
Radium-226	Bq/g	<0.00006	<0.00006
Radium-226	Bq/g	<0.00006	<0.00006
Radium-226	Bq/g	<0.00006	<0.00006
Radium-226	Bq/g	<0.00006	<0.00006
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02

Duplicate Analysis	Units	First Result	Second Result	
Antimony	ug/g	<0.02	<0.02	
Selenium	ug/g	0.22	0.23	
Selenium	ug/g	0.34	0.32	
Selenium	ug/g	0.36	0.33	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Strontium	ug/g	0.29	0.55	*(2)
Strontium	ug/g	0.11	0.14	
Strontium	ug/g	0.28	0.26	
Thorium-230	Bq/g	<0.0001	<0.0001	
Thorium-230	Bq/g	<0.0001	<0.0001	
Thorium-230	Bq/g	<0.0002	<0.0002	
Thorium-230	Bq/g	<0.0002	<0.0002	
Thorium-230	Bq/g	<0.01	<0.01	
Titanium	ug/g	0.08	0.09	
Titanium	ug/g	0.09	0.08	
Titanium	ug/g	0.08	0.08	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.1	<0.1	
Thallium	ug/g	<0.01	<0.01	
Uranium	ug/g	<0.001	0.002	
Uranium	ug/g	<0.001	<0.001	
Uranium	ug/g	<0.001	<0.001	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Zinc	ug/g	4.7	3.9	
Zinc	ug/g	3.8	3.3	
Zinc	ug/g	3.2	3.7	

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	Percent Recovery
Lead-210	94
Polonium-210	105

*(1) The Lead-210 result for the calibration check sample was outside the laboratory's specified limits. The data was reviewed and all additional quality control measures in the same batch were within specified limits.

*(2) The duplicate results for Strontium were outside the laboratory's specified limits. The data was reviewed and the sample was reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-11384

Mar 07, 2012

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
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(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-10-2011 Client P.O.: PROJ# 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Mar 07, 2012

422 Downey Road
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CanNorth
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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-10-2011 Client P.O.: PROJ# 1489

41737 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH FLESH*
41738 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH BONES*
41739 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH FLESH*

Analyte	Units	41737	41738	41739
Inorganic Chemistry				
Mercury	ug/g	0.04±0.03	0.02±0.02	0.01±0.01
Moisture	%	75.72±0.7	46.16±0.5	77.95±0.7
ICP				
Aluminum	ug/g	0.5±0.5	1.6±1	0.7±0.6
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08±0.01	0.06±0.02	0.02±0.01
Barium	ug/g	0.08±0.01	9.1±0.1	0.05±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.005±0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.03±0.01	0.006±0.002
Copper	ug/g	0.34±0.05	0.21±0.06	0.25±0.05
Iron	ug/g	4.6±1	5.9±2	4.6±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.69±0.1	159±2	1.4±0.1
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02±0.01	0.13±0.02	0.07±0.01
Selenium	ug/g	0.27±0.05	0.24±0.07	0.57±0.07
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.58±0.1	178±2	0.37±0.08
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01

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Mar 07, 2012

CanNorth, Canada North Environmental Services Limited

41737 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH FLESH*
41738 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH BONES*
41739 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH FLESH*

Analyte	Units	41737	41738	41739
ICP				
Titanium	ug/g	0.11±0.03	0.33±0.08	0.09±0.03
Uranium	ug/g	0.003±0.002	<0.01	0.002±0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.1±0.6	27±2	5.0±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0007±0.0004	0.003±0.002	0.0022±0.001
Radium-226	Bq/g	<0.00007	<0.001	<0.0001
Thorium-230	Bq/g	<0.0001	<0.003	<0.0003

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a "raw weight" basis.
Please note that radionuclide detection limits for biological tissue samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Mar 07, 2012

CanNorth, Canada North Environmental Services Limited

41740 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH BONES*
41741 09/29/2011 ARMATAGE BAY, SP91, LSU 10 AND LSU 11 COMPOSITE *FISH FLESH*
41742 09/29/2011 ARMATAGE BAY, SP91, LSU 10 AND LSU 11 COMPOSITE *FISH BONES*

Analyte	Units	41740	41741	41742
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02±0.01	<0.01
Moisture	%	52.93±0.6	77.45±0.7	49.09±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.02±0.01	0.06±0.02
Barium	ug/g	10±0.1	0.02±0.01	6.2±0.09
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	0.004±0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03±0.01	0.008±0.002	0.02±0.01
Copper	ug/g	0.26±0.07	0.19±0.04	0.34±0.08
Iron	ug/g	15±3	1.8±0.9	12±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	104±2	0.31±0.07	38±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.13±0.02	<0.01	0.10±0.02
Selenium	ug/g	0.25±0.07	0.53±0.07	0.21±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	275±3	0.23±0.06	182±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.45±0.09	0.08±0.02	0.27±0.07
Uranium	ug/g	0.02±0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	43±3	4.1±0.6	27±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	0.0035±0.001	0.013±0.005
Radium-226	Bq/g	<0.001	<0.00006	0.010±0.008
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41743 09/29/2011 ARMATAGE BAY, SP91, LSU 12 AND LSU 13 COMPOSITE *FISH FLESH*
41744 09/29/2011 ARMATAGE BAY, SP91, LSU 12 AND LSU 13 COMPOSITE *FISH BONES*
41745 09/29/2011 ARMATAGE BAY, SP91, LSU 14 AND LSU 15 COMPOSITE *FISH FLESH*

Analyte	Units	41743	41744	41745
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.01±0.01	0.02±0.01
Moisture	%	77.03±0.7	55.45±0.6	77.28±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.04±0.01	0.03±0.02	0.06±0.01
Barium	ug/g	0.06±0.01	5.6±0.08	0.08±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002±0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004±0.002	0.01±0.01	0.005±0.002
Copper	ug/g	0.26±0.05	0.26±0.07	0.18±0.04
Iron	ug/g	8.5±2	11±2	1.8±0.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	2.0±0.2	94±2	0.71±0.1
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.06±0.02	<0.01
Selenium	ug/g	0.32±0.05	0.27±0.07	0.33±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.72±0.1	130±2	0.80±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.22±0.06	0.08±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.8±0.6	24±2	4.8±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0030±0.001	0.005±0.002	0.0023±0.001
Radium-226	Bq/g	<0.0001	0.001±0.001	<0.0001
Thorium-230	Bq/g	<0.0002	<0.002	<0.0003

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41746 09/29/2011 ARMATAGE BAY, SP91, LSU 14 AND LSU 15 COMPOSITE *FISH BONES*
41747 09/29/2011 ARMATAGE BAY, SP9-1, WSU 02 *FISH FLESH*
41748 09/29/2011 ARMATAGE BAY, SP9-1, WSU 02 *FISH BONES*

Analyte	Units	41746	41747	41748
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.01±0.01	<0.01
Moisture	%	55.70±0.6	77.35±0.7	46.43±0.5
ICP				
Aluminum	ug/g	<0.5	<0.5	0.6±0.6
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.05±0.01	0.04±0.02
Barium	ug/g	7.1±0.09	0.04±0.01	16±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.003±0.002	0.03±0.01
Copper	ug/g	1.0±0.1	0.36±0.05	0.28±0.07
Iron	ug/g	11±2	3.7±1	26±3
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	138±2	0.28±0.07	153±2
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	<0.01	0.19±0.02
Selenium	ug/g	0.28±0.07	0.21±0.04	0.20±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	174±2	0.22±0.06	388±3
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.26±0.07	0.06±0.02	0.50±0.1
Uranium	ug/g	<0.01	0.001±0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	27±2	4.1±0.6	38±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.004±0.002	0.0020±0.0009	0.003±0.002
Radium-226	Bq/g	<0.001	<0.00008	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.003

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41749 09/29/2011 ARMATAGE BAY, SP9-1, WSU 03 *FISH FLESH*
41750 09/29/2011 ARMATAGE BAY, SP9-1, WSU 03 *FISH BONES*
41751 09/29/2011 ARMATAGE BAY, SP9-1, WSU 04 *FISH FLESH*

Analyte	Units	41749	41750	41751
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	<0.01	0.01±0.01
Moisture	%	76.30±0.7	45.36±0.5	79.19±0.7
ICP				
Aluminum	ug/g	0.6±0.6	<0.5	0.7±0.6
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11±0.01	0.07±0.02	0.06±0.01
Barium	ug/g	0.16±0.01	11±0.1	0.06±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002±0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.005±0.002
Copper	ug/g	0.22±0.04	0.39±0.08	0.25±0.05
Iron	ug/g	1.9±1	19±3	5.1±2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.63±0.1	74±2	0.81±0.1
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01±0.01	0.11±0.02	<0.01
Selenium	ug/g	0.21±0.04	0.16±0.05	0.20±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.2±0.1	207±3	0.54±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.33±0.08	0.08±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.5±0.7	30±2	4.7±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0008±0.0004	0.003±0.002	0.0020±0.0009
Radium-226	Bq/g	<0.00009	0.004±0.003	0.0001±0.0001
Thorium-230	Bq/g	<0.0002	<0.003	<0.0002

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41752 09/29/2011 ARMATAGE BAY, SP9-1, WSU 04 *FISH BONES*
41753 09/29/2011 ARMATAGE BAY, SP9-1, WSU 05 *FISH FLESH*
41754 09/29/2011 ARMATAGE BAY, SP9-1, WSU 05 *FISH BONES*

Analyte	Units	41752	41753	41754
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02±0.01	<0.01
Moisture	%	45.93±0.5	79.36±0.7	52.30±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.04±0.02	0.06±0.01	0.05±0.02
Barium	ug/g	7.7±0.1	0.04±0.01	7.9±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.002±0.002	0.02±0.01
Copper	ug/g	0.28±0.07	0.20±0.04	0.38±0.08
Iron	ug/g	11±2	2.4±1	13±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	80±2	0.23±0.06	54±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	<0.01	0.12±0.02
Selenium	ug/g	0.19±0.06	0.18±0.04	0.15±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	179±2	0.21±0.06	194±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.29±0.07	0.08±0.02	0.29±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	23±2	4.3±0.6	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.004
Polonium-210	Bq/g	0.004±0.002	0.0010±0.0005	0.003±0.002
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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41755 09/29/2011 ARMATAGE BAY, SP9-1, WSU 06 *FISH FLESH*
41756 09/29/2011 ARMATAGE BAY, SP9-1, WSU 06 *FISH BONES*
41757 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY- SP 1-1 - LT01 *FISH FLESH*

Analyte	Units	41755	41756	41757
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	<0.01	0.13±0.08
Moisture	%	73.98±0.7	44.43±0.5	66.65±0.6
ICP				
Aluminum	ug/g	0.6±0.6	<0.5	0.9±0.8
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05±0.01	0.04±0.02	0.11±0.01
Barium	ug/g	0.04±0.01	8.5±0.1	0.03±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.02±0.01	<0.002
Copper	ug/g	0.39±0.06	0.25±0.07	0.27±0.05
Iron	ug/g	3.7±1	19±3	5.3±2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.22±0.06	90±2	0.20±0.06
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.11±0.02	<0.01
Selenium	ug/g	0.20±0.04	0.15±0.05	0.16±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.20±0.06	208±3	0.17±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.40±0.08	0.11±0.03
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.4±0.6	32±2	6.5±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0006±0.0003	0.002±0.001	<0.0002
Radium-226	Bq/g	0.0002±0.0002	<0.001	<0.00007
Thorium-230	Bq/g	<0.0002	<0.002	<0.0001

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41758 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY- SP 1-1 - LT01 *FISH BONES*
41759 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT02 *FISH FLESH*
41760 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT02 *FISH BONES*

Analyte	Units	41758	41759	41760
Inorganic Chemistry				
Mercury	ug/g	0.03±0.02	0.17±0.09	0.07±0.04
Moisture	%	48.21±0.5	72.80±0.7	47.80±0.5
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.26±0.02	0.08±0.01	0.34±0.02
Barium	ug/g	1.1±0.04	<0.01	0.76±0.03
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	<0.002	0.01±0.01
Copper	ug/g	0.18±0.06	0.13±0.03	0.12±0.05
Iron	ug/g	3.5±1	1.9±1	2.2±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	0.90±0.2	0.06±0.03	0.60±0.2
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.07±0.02	0.01±0.01	0.08±0.02
Selenium	ug/g	0.15±0.05	0.15±0.04	0.11±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	77±2	0.17±0.06	60±1
Thallium	ug/g	0.02±0.02	<0.01	0.02±0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17±0.05	0.07±0.02	0.19±0.05
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	21±2	3.4±0.5	19±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0005±0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	0.0002±0.0001	<0.002

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41761 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT03 *FISH FLESH*
41762 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT03 *FISH BONES*
41763 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT04 *FISH FLESH*

Analyte	Units	41761	41762	41763
Inorganic Chemistry				
Mercury	ug/g	0.18±0.09	0.03±0.02	0.17±0.09
Moisture	%	72.26±0.7	51.05±0.6	70.93±0.6
ICP				
Aluminum	ug/g	0.5±0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12±0.01	0.29±0.02	0.07±0.01
Barium	ug/g	0.04±0.01	1.1±0.04	0.01±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	<0.002
Copper	ug/g	0.20±0.04	0.11±0.05	0.24±0.05
Iron	ug/g	1.9±1	2.2±1	2.3±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.07±0.04	0.89±0.2	0.06±0.03
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.07±0.02	0.02±0.01
Selenium	ug/g	0.12±0.03	0.09±0.04	0.21±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.46±0.09	85±2	0.07±0.04
Thallium	ug/g	<0.01	0.02±0.02	0.01±0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.23±0.06	0.08±0.02
Uranium	ug/g	0.001±0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.8±0.6	22±2	2.6±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0005	<0.0002
Radium-226	Bq/g	<0.00007	<0.0008	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	0.0001±0.0001

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41764 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT04 *FISH BONES*
41765 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT05 *FISH FLESH*
41766 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT05 *FISH BONES*

Analyte	Units	41764	41765	41766
Inorganic Chemistry				
Mercury	ug/g	0.03±0.02	0.13±0.08	0.03±0.02
Moisture	%	50.55±0.6	75.14±0.7	49.93±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	1.5±1
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.26±0.02	0.06±0.01	0.16±0.02
Barium	ug/g	0.83±0.04	<0.01	1.1±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	<0.01	0.003±0.002	0.01±0.01
Copper	ug/g	0.17±0.06	0.22±0.04	0.17±0.06
Iron	ug/g	6.0±2	3.4±1	10±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	0.92±0.2	0.09±0.04	0.71±0.2
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.06±0.02	<0.01	0.08±0.02
Selenium	ug/g	0.18±0.06	0.18±0.04	0.16±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	49±1	0.12±0.05	72±2
Thallium	ug/g	<0.02	<0.01	0.03±0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.15±0.05	0.08±0.02	0.40±0.08
Uranium	ug/g	0.01±0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	19±2	7.8±0.8	23±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.0004±0.0002	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41767 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW06 *FISH FLESH*
41768 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW06 *FISH BONES*
41769 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW07 *FISH FLESH*

Analyte	Units	41767	41768	41769
Inorganic Chemistry				
Mercury	ug/g	0.04±0.02	<0.01	0.04±0.02
Moisture	%	75.91±0.7	48.14±0.5	75.86±0.7
ICP				
Aluminum	ug/g	<0.5	2.7±2	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12±0.01	0.27±0.02	0.05±0.01
Barium	ug/g	0.63±0.02	14±0.1	0.60±0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	0.2±0.2	<0.1
Cobalt	ug/g	<0.002	0.03±0.01	0.009±0.002
Copper	ug/g	0.19±0.04	0.12±0.05	0.25±0.05
Iron	ug/g	1.3±0.8	5.7±2	2.1±1
Lead	ug/g	<0.002	0.08±0.03	<0.002
Manganese	ug/g	0.09±0.04	6.6±0.5	0.08±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.15±0.02	<0.01
Selenium	ug/g	0.18±0.04	0.15±0.05	0.21±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.22±0.06	264±3	0.18±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.30±0.07	0.07±0.02
Uranium	ug/g	<0.001	0.19±0.04	0.007±0.003
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6±0.5	38±2	4.4±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.002±0.001	<0.0002
Radium-226	Bq/g	<0.00008	0.002±0.002	<0.00006
Thorium-230	Bq/g	0.0004±0.0002	<0.002	<0.0001

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41770 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW07 *FISH BONES*
41771 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW08 *FISH FLESH*
41772 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW08 *FISH BONES*

Analyte	Units	41770	41771	41772
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.09±0.04	0.04±0.02
Moisture	%	56.47±0.6	76.21±0.7	50.40±0.6
ICP				
Aluminum	ug/g	1.4±1	<0.5	1.0±0.8
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.14±0.02	0.12±0.01	0.16±0.02
Barium	ug/g	9.3±0.1	0.01±0.01	3.4±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	0.2±0.2
Cobalt	ug/g	0.03±0.01	0.004±0.002	0.02±0.01
Copper	ug/g	0.21±0.06	0.15±0.04	0.14±0.05
Iron	ug/g	6.7±2	4.4±1	5.7±2
Lead	ug/g	<0.01	<0.002	0.01±0.01
Manganese	ug/g	6.4±0.5	0.07±0.04	4.0±0.4
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.18±0.02	<0.01	0.17±0.02
Selenium	ug/g	0.19±0.06	0.58±0.07	0.45±0.09
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	233±3	0.34±0.08	175±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	0.02±0.01	<0.02
Titanium	ug/g	0.31±0.07	0.06±0.02	0.31±0.07
Uranium	ug/g	0.16±0.04	0.006±0.002	0.40±0.06
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	49±3	5.3±0.7	34±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001±0.0006	0.0007±0.0004	0.001±0.0006
Radium-226	Bq/g	<0.001	0.0003±0.0002	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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41773 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW09 *FISH FLESH*
41774 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW09 *FISH BONES*
41775 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW10 *FISH FLESH*

Analyte	Units	41773	41774	41775
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	<0.01	0.02±0.01
Moisture	%	73.83±0.7	55.43±0.6	74.66±0.7
ICP				
Aluminum	ug/g	<0.5	1.9±1	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11±0.01	0.18±0.02	0.11±0.01
Barium	ug/g	0.17±0.01	12±0.1	0.04±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.003±0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	0.004±0.002
Copper	ug/g	0.19±0.04	0.13±0.05	0.20±0.04
Iron	ug/g	1.8±0.9	5.4±2	4.3±1
Lead	ug/g	<0.002	0.02±0.01	<0.002
Manganese	ug/g	0.11±0.05	7.3±0.5	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	0.02±0.02
Nickel	ug/g	<0.01	0.12±0.02	0.08±0.01
Selenium	ug/g	2.6±0.1	1.8±0.2	0.28±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.75±0.5	211±3	0.45±0.09
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.31±0.07	0.07±0.02
Uranium	ug/g	0.008±0.003	1.8±0.1	0.012±0.003
Vanadium	ug/g	<0.02	2.0±0.3	<0.02
Zinc	ug/g	5.0±0.6	36±2	4.1±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0007±0.0004	0.002±0.001	<0.0002
Radium-226	Bq/g	<0.00007	<0.001	<0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0002

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41776 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW10 *FISH BONES*
41777 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT01 *FISH FLESH*
41778 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT01 *FISH BONES*

Analyte	Units	41776	41777	41778
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.13±0.08	0.04±0.02
Moisture	%	55.27±0.6	73.73±0.7	45.36±0.5
ICP				
Aluminum	ug/g	2.6±2	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.20±0.02	0.12±0.01	<0.02
Barium	ug/g	18±0.1	0.04±0.01	0.06±0.02
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	0.3±0.2
Cobalt	ug/g	0.03±0.01	0.003±0.002	0.02±0.01
Copper	ug/g	0.11±0.05	0.52±0.07	<0.02
Iron	ug/g	7.6±2	4.5±1	1.2±0.8
Lead	ug/g	0.04±0.02	<0.002	<0.01
Manganese	ug/g	13±0.7	0.10±0.04	0.11±0.07
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.13±0.02	0.03±0.01	0.49±0.03
Selenium	ug/g	0.24±0.07	0.14±0.04	<0.02
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	286±3	0.30±0.07	2.2±0.3
Thallium	ug/g	0.02±0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.37±0.08	0.07±0.02	<0.02
Uranium	ug/g	0.29±0.05	0.014±0.004	<0.01
Vanadium	ug/g	0.24±0.1	<0.02	<0.05
Zinc	ug/g	37±2	11±3	0.7±0.4
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0007±0.0005	<0.0002	<0.0004
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41779 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT02 *FISH FLESH*
41780 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT02 *FISH BONES*
41781 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT03 *FISH FLESH*

Analyte	Units	41779	41780	41781
Inorganic Chemistry				
Mercury	ug/g	0.20±0.1	0.05±0.02	0.28±0.2
Moisture	%	71.70±0.7	50.35±0.6	74.10±0.7
ICP				
Aluminum	ug/g	<0.5	0.7±0.6	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08±0.01	0.23±0.02	0.12±0.01
Barium	ug/g	0.01±0.01	0.70±0.03	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	<0.01	<0.002
Copper	ug/g	0.52±0.07	0.18±0.06	0.11±0.03
Iron	ug/g	3.0±1	2.6±1	1.0±0.7
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.09±0.04	1.1±0.2	0.09±0.04
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.08±0.02	<0.01
Selenium	ug/g	0.18±0.04	0.13±0.05	0.15±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.19±0.06	54±1	0.26±0.07
Thallium	ug/g	0.01±0.01	0.04±0.03	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.15±0.04	0.20±0.06	0.06±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.8±0.6	18±2	2.9±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0004	<0.0002
Radium-226	Bq/g	<0.00006	<0.0008	0.0002±0.0001
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41782 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT03 *FISH BONES*
41783 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT04 *FISH FLESH*
41784 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT04 *FISH BONES*

Analyte	Units	41782	41783	41784
Inorganic Chemistry				
Mercury	ug/g	0.06±0.06	0.07±0.04	0.02±0.01
Moisture	%	50.25±0.6	70.34±0.6	50.14±0.6
ICP				
Aluminum	ug/g	1.6±1	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.29±0.02	0.08±0.01	0.16±0.02
Barium	ug/g	0.88±0.04	<0.01	1.3±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	0.8±0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	<0.01	<0.002	0.01±0.01
Copper	ug/g	0.08±0.04	0.32±0.05	0.16±0.05
Iron	ug/g	2.3±1	2.2±1	4.2±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	2.0±0.3	0.07±0.04	2.1±0.3
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.07±0.02	<0.01	0.08±0.02
Selenium	ug/g	0.12±0.05	0.16±0.04	0.13±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	62±1	0.20±0.06	77±2
Thallium	ug/g	<0.02	<0.01	0.04±0.03
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24±0.06	0.07±0.02	0.18±0.05
Uranium	ug/g	0.49±0.06	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	16±2	3.8±0.6	27±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	0.003±0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.00009±0.00009	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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41785 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT05 *FISH FLESH*
41786 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT05 *FISH BONES*
41787 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW06 *FISH FLESH*

Analyte	Units	41785	41786	41787
Inorganic Chemistry				
Mercury	ug/g	0.18±0.09	0.04±0.02	0.07±0.04
Moisture	%	67.36±0.6	49.24±0.6	74.81±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12±0.01	0.21±0.02	0.38±0.01
Barium	ug/g	<0.01	1.1±0.04	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.01±0.01	<0.002
Copper	ug/g	0.28±0.05	0.10±0.04	0.12±0.03
Iron	ug/g	2.0±1	2.2±1	1.5±0.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.08±0.04	1.5±0.3	0.12±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01±0.01	0.07±0.02	<0.01
Selenium	ug/g	0.18±0.04	0.13±0.05	0.29±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.15±0.05	82±2	0.15±0.05
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06±0.02	0.21±0.06	0.07±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.5±0.5	18±2	3.0±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0005	0.0005±0.0003
Radium-226	Bq/g	0.0001±0.0001	<0.0008	<0.00006
Thorium-230	Bq/g	<0.0002	<0.002	<0.0001

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41788 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW06 *FISH BONES*
41789 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW07 *FISH FLESH*
41790 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW07 *FISH BONES*

Analyte	Units	41788	41789	41790
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.06±0.03	0.03±0.02
Moisture	%	50.47±0.6	78.24±0.7	56.90±0.6
ICP				
Aluminum	ug/g	3.3±2	<0.5	4.2±2
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.41±0.02	0.24±0.01	0.18±0.02
Barium	ug/g	10±0.1	0.04±0.01	15±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.02±0.01
Copper	ug/g	0.09±0.04	0.15±0.04	0.19±0.06
Iron	ug/g	3.6±1	1.2±0.8	4.3±1
Lead	ug/g	0.03±0.02	<0.002	0.04±0.02
Manganese	ug/g	16±0.8	0.19±0.06	29±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	<0.01	0.13±0.02
Selenium	ug/g	0.21±0.06	0.25±0.05	0.24±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	217±3	0.74±0.1	287±3
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24±0.06	0.07±0.02	0.44±0.09
Uranium	ug/g	0.51±0.06	0.002±0.001	0.61±0.07
Vanadium	ug/g	0.14±0.08	<0.02	0.19±0.1
Zinc	ug/g	25±2	2.8±0.5	27±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	<0.0002	0.004±0.002
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41791 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW08 *FISH FLESH*
41792 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW08 *FISH BONES*
41793 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW09 *FISH FLESH*

Analyte	Units	41791	41792	41793
Inorganic Chemistry				
Mercury	ug/g	0.03±0.02	0.02±0.01	0.03±0.02
Moisture	%	73.86±0.7	49.52±0.6	77.91±0.7
ICP				
Aluminum	ug/g	<0.5	2.2±1	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.36±0.01	0.37±0.02	0.31±0.01
Barium	ug/g	0.06±0.01	9.2±0.1	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.007±0.002	0.02±0.01	0.002±0.002
Copper	ug/g	0.38±0.06	0.24±0.07	0.11±0.03
Iron	ug/g	3.6±1	5.5±2	1.1±0.7
Lead	ug/g	<0.002	0.07±0.03	<0.002
Manganese	ug/g	0.13±0.05	6.2±0.5	0.12±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02±0.01	0.07±0.02	<0.01
Selenium	ug/g	0.25±0.05	0.21±0.06	0.22±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.0±0.1	156±2	0.18±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06±0.02	0.19±0.05	0.06±0.02
Uranium	ug/g	<0.001	0.26±0.05	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.4±0.6	21±2	3.3±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.002±0.001	<0.0002
Radium-226	Bq/g	<0.0002	0.002±0.002	<0.00006
Thorium-230	Bq/g	<0.0003	<0.002	<0.0001

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41794 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW09 *FISH BONES*
41795 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW10 *FISH FLESH*
41796 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW10 *FISH BONES*

Analyte	Units	41794	41795	41796
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.02±0.01	<0.01
Moisture	%	52.63±0.6	76.16±0.7	56.19±0.6
ICP				
Aluminum	ug/g	2.2±1	<0.5	1.6±1
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.29±0.02	0.17±0.01	0.33±0.02
Barium	ug/g	8.0±0.1	<0.01	9.4±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.002±0.002	0.02±0.01
Copper	ug/g	0.11±0.05	0.15±0.04	0.09±0.04
Iron	ug/g	5.9±2	2.2±1	4.7±1
Lead	ug/g	0.02±0.01	<0.002	<0.01
Manganese	ug/g	20±0.9	0.10±0.04	14±0.7
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12±0.02	<0.01	0.09±0.02
Selenium	ug/g	0.21±0.06	0.25±0.05	0.21±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	239±3	0.24±0.07	191±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.35±0.08	0.07±0.02	0.27±0.07
Uranium	ug/g	0.84±0.08	<0.001	0.54±0.07
Vanadium	ug/g	0.12±0.08	<0.02	0.12±0.08
Zinc	ug/g	38±2	3.1±0.5	27±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0007±0.0005	<0.0002	0.001±0.0006
Radium-226	Bq/g	<0.001	0.0003±0.0002	<0.0009
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41797 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 01 *FISH FLESH*
41798 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 01 *FISH BONES*
41799 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 02 *FISH FLESH*

Analyte	Units	41797	41798	41799
Inorganic Chemistry				
Mercury	ug/g	0.08±0.04	0.02±0.01	0.05±0.02
Moisture	%	75.91±0.7	62.48±0.6	78.64±0.7
ICP				
Aluminum	ug/g	<0.5	1.9±1	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11±0.01	0.16±0.02	0.14±0.01
Barium	ug/g	<0.01	13±0.1	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.004±0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	0.002±0.002
Copper	ug/g	0.14±0.04	0.10±0.04	0.15±0.04
Iron	ug/g	1.8±0.9	5.4±2	1.7±0.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.09±0.04	12±0.7	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09±0.02	<0.01
Selenium	ug/g	0.64±0.07	0.42±0.09	0.40±0.06
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.13±0.05	98±2	0.09±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.25±0.06	0.06±0.02
Uranium	ug/g	<0.001	0.06±0.02	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.3±0.5	33±2	3.0±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.002±0.002	<0.001
Polonium-210	Bq/g	0.0008±0.0004	0.002±0.001	0.0011±0.0006
Radium-226	Bq/g	<0.0002	0.002±0.002	0.0002±0.0002
Thorium-230	Bq/g	<0.0003	<0.002	<0.0002

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41800 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 02 *FISH BONES*
41801 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 03 *FISH FLESH*
41802 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 03 *FISH BONES*

Analyte	Units	41800	41801	41802
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.04±0.02	0.02±0.01
Moisture	%	57.88±0.6	79.11±0.7	48.48±0.6
ICP				
Aluminum	ug/g	1.9±1	<0.5	4.1±2
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.19±0.02	0.19±0.01	0.17±0.02
Barium	ug/g	18±0.1	0.02±0.01	14±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.02±0.01
Copper	ug/g	0.09±0.04	0.15±0.04	0.10±0.04
Iron	ug/g	4.0±1	2.1±1	4.6±1
Lead	ug/g	0.01±0.01	<0.002	0.02±0.01
Manganese	ug/g	23±0.9	0.10±0.04	19±0.8
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.08±0.02	<0.01	0.09±0.02
Selenium	ug/g	0.32±0.07	0.40±0.06	0.37±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	122±2	0.12±0.05	133±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24±0.06	0.06±0.02	0.34±0.08
Uranium	ug/g	0.18±0.04	<0.001	0.33±0.05
Vanadium	ug/g	0.18±0.09	<0.02	0.21±0.1
Zinc	ug/g	28±2	3.6±0.5	28±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	<0.0002	0.002±0.001
Radium-226	Bq/g	0.002±0.002	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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41803 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 04 *FISH FLESH*
41804 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 04 *FISH BONES*
41805 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 05 *FISH FLESH*

Analyte	Units	41803	41804	41805
Inorganic Chemistry				
Mercury	ug/g	0.07±0.04	0.04±0.02	0.03±0.02
Moisture	%	75.83±0.7	50.11±0.6	77.43±0.7
ICP				
Aluminum	ug/g	<0.5	4.5±2	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.31±0.01	0.23±0.02	0.07±0.01
Barium	ug/g	<0.01	11±0.1	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.006±0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.02±0.01	0.006±0.002
Copper	ug/g	0.10±0.03	0.07±0.04	0.16±0.04
Iron	ug/g	1.9±1	7.0±2	2.2±1
Lead	ug/g	<0.002	0.01±0.01	<0.002
Manganese	ug/g	0.11±0.05	27±1	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.13±0.02	<0.01
Selenium	ug/g	0.78±0.08	0.55±0.1	0.31±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.12±0.05	156±2	0.11±0.05
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.29±0.07	0.06±0.02
Uranium	ug/g	<0.001	0.13±0.03	<0.001
Vanadium	ug/g	<0.02	0.41±0.1	<0.02
Zinc	ug/g	2.6±0.5	35±2	4.1±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.004±0.002	<0.001
Polonium-210	Bq/g	0.0004±0.0002	0.002±0.001	0.0005±0.0003
Radium-226	Bq/g	<0.00006	<0.001	0.00009±0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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Mar 07, 2012

CanNorth, Canada North Environmental Services Limited

41806 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 05 *FISH BONES*
41807 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 06 *FISH FLESH*
41808 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 06 *FISH BONES*

Analyte	Units	41806	41807	41808
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.06±0.03	0.01±0.01
Moisture	%	56.08±0.6	77.94±0.7	56.86±0.6
ICP				
Aluminum	ug/g	1.6±1	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.09±0.02	0.02±0.01	0.02±0.02
Barium	ug/g	5.9±0.09	0.04±0.01	3.4±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03±0.01	0.003±0.002	0.02±0.01
Copper	ug/g	0.10±0.04	0.29±0.05	0.17±0.06
Iron	ug/g	7.3±2	2.3±1	6.4±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	15±0.7	0.37±0.08	31±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	<0.01	0.09±0.02
Selenium	ug/g	0.26±0.07	0.26±0.05	0.20±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	121±2	0.46±0.09	51±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.36±0.08	0.07±0.02	0.35±0.08
Uranium	ug/g	0.06±0.02	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	39±2	5.1±0.6	67±3
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.004±0.002	0.0031±0.001	0.001±0.0006
Radium-226	Bq/g	<0.001	<0.00006	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41809 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 072 *FISH FLESH*
41810 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 072 *FISH BONES*
41811 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 08 *FISH FLESH*

Analyte	Units	41809	41810	41811
Inorganic Chemistry				
Mercury	ug/g	0.20±0.1	0.03±0.02	0.20±0.1
Moisture	%	76.92±0.7	55.90±0.6	78.89±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.03±0.01	0.07±0.02	0.03±0.01
Barium	ug/g	0.02±0.01	3.2±0.07	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.009±0.002	0.02±0.01	0.004±0.002
Copper	ug/g	0.25±0.05	0.15±0.05	0.18±0.04
Iron	ug/g	2.3±1	3.2±1	1.7±0.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.21±0.06	21±0.9	0.12±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09±0.02	<0.01
Selenium	ug/g	0.31±0.05	0.24±0.07	0.24±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.22±0.06	46±1	0.07±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.27±0.07	0.06±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.2±0.6	62±3	4.0±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0016±0.0008	0.001±0.0006	0.0011±0.0006
Radium-226	Bq/g	0.0001±0.00009	<0.001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41812 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 08 *FISH BONES*
41813 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 09 *FISH FLESH*
41814 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 09 *FISH BONES*

Analyte	Units	41812	41813	41814
Inorganic Chemistry				
Mercury	ug/g	0.04±0.02	0.09±0.04	0.02±0.01
Moisture	%	54.19±0.6	78.56±0.7	60.44±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.02±0.01	0.02±0.02
Barium	ug/g	2.8±0.06	0.06±0.01	3.5±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.006±0.002	0.01±0.01
Copper	ug/g	0.13±0.05	0.55±0.07	0.14±0.05
Iron	ug/g	3.8±1	3.7±1	4.4±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	17±0.8	0.34±0.08	24±0.9
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	<0.01	0.08±0.02
Selenium	ug/g	0.17±0.06	0.27±0.05	0.18±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	44±1	0.57±0.1	48±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24±0.06	0.06±0.02	0.28±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	62±3	8.3±0.8	55±3
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	0.0032±0.001	0.002±0.001
Radium-226	Bq/g	0.001±0.001	0.00007±0.00007	0.001±0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41815 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 10 *FISH FLESH*
41816 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 10 *FISH BONES*
41817 09/24/2011 GREEN BAY, SP 2-1, NP 02 *FISH FLESH*

Analyte	Units	41815	41816	41817
Inorganic Chemistry				
Mercury	ug/g	0.08±0.04	0.02±0.01	0.11±0.07
Moisture	%	78.58±0.7	62.72±0.6	78.45±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.03±0.02	0.02±0.01
Barium	ug/g	0.04±0.01	3.5±0.07	0.01±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.02±0.01	<0.002
Copper	ug/g	0.22±0.04	0.15±0.05	0.15±0.04
Iron	ug/g	1.9±1	3.5±1	1.5±0.9
Lead	ug/g	<0.002	0.03±0.02	<0.002
Manganese	ug/g	0.26±0.07	23±0.9	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02±0.01	0.08±0.02	<0.01
Selenium	ug/g	0.28±0.05	0.22±0.06	0.21±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.53±0.09	48±1	0.27±0.07
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08±0.02	0.24±0.06	0.19±0.04
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.3±0.7	66±3	6.9±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0031±0.001	0.003±0.002	0.0010±0.0005
Radium-226	Bq/g	<0.00007	<0.001	<0.0001
Thorium-230	Bq/g	<0.0001	<0.002	<0.0003

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41818 09/24/2011 GREEN BAY, SP 2-1, NP 02 *FISH BONES*
41819 09/25/2011 GREEN BAY, SP 7-1, LSU 11 *FISH FLESH*
41820 09/25/2011 GREEN BAY, SP 7-1, LSU 11 *FISH BONES*

Analyte	Units	41818	41819	41820
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.01±0.01	0.01±0.01
Moisture	%	54.77±0.6	72.49±0.7	54.20±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.11±0.01	0.05±0.02
Barium	ug/g	3.8±0.07	0.04±0.01	5.3±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.003±0.002	0.01±0.01
Copper	ug/g	0.12±0.05	0.26±0.05	0.40±0.08
Iron	ug/g	3.4±1	2.2±1	6.1±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	7.4±0.5	0.18±0.06	30±1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	0.03±0.01	0.07±0.02
Selenium	ug/g	0.13±0.05	0.26±0.05	0.28±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	164±2	0.39±0.08	197±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22±0.06	0.06±0.02	0.14±0.04
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61±3	4.4±0.6	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	0.0034±0.001	0.009±0.004
Radium-226	Bq/g	<0.001	0.0006±0.0004	0.006±0.004
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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41821 09/25/2011 GREEN BAY, SP 7-1, LSU 12 *FISH FLESH*
41822 09/25/2011 GREEN BAY, SP 7-1, LSU 12 *FISH BONES*
41823 09/25/2011 GREEN BAY, SP 7-1, LSU 13 *FISH FLESH*

Analyte	Units	41821	41822	41823
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	<0.01	0.04±0.02
Moisture	%	78.00±0.7	51.36±0.6	72.37±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.14±0.01	0.10±0.02	0.08±0.01
Barium	ug/g	0.08±0.01	4.1±0.07	0.06±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.01±0.01	<0.002
Copper	ug/g	0.25±0.05	0.24±0.07	0.21±0.04
Iron	ug/g	3.9±1	3.4±1	2.0±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.33±0.08	10±0.6	0.27±0.07
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.05±0.01	0.08±0.02	<0.01
Selenium	ug/g	0.25±0.05	0.21±0.06	0.25±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	2.3±0.2	169±2	0.92±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.21±0.06	0.08±0.02
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	7.7±0.8	23±2	4.1±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0016±0.0008	0.006±0.003	0.0026±0.001
Radium-226	Bq/g	0.00007±0.00007	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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41824 09/25/2011 GREEN BAY, SP 7-1, LSU 13 *FISH BONES*
41825 09/23/2011 KELLY BAY, SP 8-1, NP 01 *FISH FLESH*
41826 09/23/2011 KELLY BAY, SP 8-1, NP 01 *FISH BONES*

Analyte	Units	41824	41825	41826
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.21±0.1	0.01±0.01
Moisture	%	46.14±0.5	75.81±0.7	53.17±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	0.8±0.7
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.02±0.01	0.04±0.02
Barium	ug/g	7.5±0.1	0.01±0.01	4.1±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	<0.002	0.01±0.01
Copper	ug/g	0.15±0.05	0.15±0.04	0.12±0.05
Iron	ug/g	4.2±1	1.5±0.9	2.4±1
Lead	ug/g	0.03±0.02	<0.002	<0.01
Manganese	ug/g	25±0.9	0.11±0.05	24±0.9
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.14±0.02	0.03±0.01	0.12±0.02
Selenium	ug/g	0.18±0.06	0.28±0.05	0.16±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	233±3	0.09±0.04	106±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.29±0.07	0.07±0.02	0.28±0.07
Uranium	ug/g	<0.01	0.018±0.004	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	25±2	4.8±0.6	51±3
Radio Chemistry				
Lead-210	Bq/g	0.003±0.002	<0.001	<0.002
Polonium-210	Bq/g	0.009±0.004	0.0003±0.0002	0.001±0.0006
Radium-226	Bq/g	<0.001	<0.0002	<0.001
Thorium-230	Bq/g	<0.002	<0.0004	<0.002

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41827 09/23/2011 KELLY BAY, SP 8-1, NP 02 *FISH FLESH*
41828 09/23/2011 KELLY BAY, SP 8-1, NP 02 *FISH BONES*
41829 09/22/2011 KELLY BAY, SP 1-1, NP 03 *FISH FLESH*

Analyte	Units	41827	41828	41829
Inorganic Chemistry				
Mercury	ug/g	0.14±0.08	0.01±0.01	0.20±0.1
Moisture	%	78.74±0.7	55.13±0.6	81.23±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.03±0.02	0.01±0.01
Barium	ug/g	0.01±0.01	3.6±0.07	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	0.002±0.002
Copper	ug/g	0.17±0.04	0.12±0.05	0.17±0.04
Iron	ug/g	1.5±0.9	2.7±1	2.1±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.17±0.06	21±0.9	0.11±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02±0.01	0.10±0.02	0.02±0.01
Selenium	ug/g	0.21±0.04	0.14±0.05	0.32±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.31±0.07	116±2	0.10±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.25±0.06	0.08±0.02
Uranium	ug/g	0.002±0.001	<0.01	0.003±0.002
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.0±0.6	51±3	3.9±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0013±0.0006	0.0012±0.0007	0.0004±0.0002
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	0.003±0.002	<0.0001

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41830 09/22/2011 KELLY BAY, SP 1-1, NP 03 *FISH BONES*
41831 09/23/2011 KELLY BAY, SP 8-1, LSU 11 AND LSU 12 COMPOSITE *FISH FLESH*
41832 09/23/2011 KELLY BAY, SP 8-1, LSU 11 AND LSU 12 COMPOSITE *FISH BONES*

Analyte	Units	41830	41831	41832
Inorganic Chemistry				
Mercury	ug/g	0.04±0.02	0.03±0.02	<0.01
Moisture	%	53.55±0.6	80.61±0.7	58.61±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	<0.02	0.03±0.01	0.04±0.02
Barium	ug/g	4.2±0.07	0.22±0.01	6.6±0.09
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.003±0.002	0.02±0.01
Copper	ug/g	0.17±0.06	0.11±0.03	0.20±0.06
Iron	ug/g	3.9±1	1.5±0.9	3.3±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	15±0.7	0.43±0.09	97±2
Molybdenum	ug/g	<0.05	<0.02	0.19±0.1
Nickel	ug/g	0.09±0.02	0.02±0.01	0.09±0.02
Selenium	ug/g	0.21±0.06	0.17±0.04	0.35±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	102±2	0.68±0.1	201±3
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22±0.06	0.06±0.02	0.31±0.07
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	45±3	7.2±0.8	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	0.0004±0.0002	0.001±0.0006
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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41833 09/23/2011 KELLY BAY, SP 8-1, LSU 13 *FISH FLESH*
41834 09/23/2011 KELLY BAY, SP 8-1, LSU 13 *FISH BONES*
41835 09/23/2011 KELLY BAY, SP 8-1, LSU 14 *FISH FLESH*

Analyte	Units	41833	41834	41835
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.01±0.01	0.02±0.01
Moisture	%	80.66±0.7	58.75±0.6	79.81±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.04±0.01	0.03±0.02	0.05±0.01
Barium	ug/g	0.06±0.01	5.1±0.08	0.07±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	0.004±0.002
Copper	ug/g	0.11±0.03	0.16±0.05	0.15±0.04
Iron	ug/g	0.9±0.7	3.6±1	1.2±0.8
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.57±0.1	53±1	0.99±0.1
Molybdenum	ug/g	<0.02	0.15±0.09	0.04±0.03
Nickel	ug/g	<0.01	0.07±0.02	0.01±0.01
Selenium	ug/g	0.25±0.05	0.25±0.07	0.21±0.04
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.83±0.1	143±2	1.4±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06±0.02	0.21±0.06	0.06±0.02
Uranium	ug/g	<0.001	<0.01	0.004±0.002
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6±0.5	21±2	3.6±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0004±0.0002	0.002±0.001	0.0003±0.0002
Radium-226	Bq/g	<0.00007	0.004±0.003	0.00008±0.00008
Thorium-230	Bq/g	<0.0001	<0.002	0.0001±0.0001

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41836 09/23/2011 KELLY BAY, SP 8-1, LSU 14 *FISH BONES*
41837 09/23/2011 KELLY BAY, SP 8-1, LSU 15 AND LSU 16 COMPOSITE *FISH FLESH*
41838 09/23/2011 KELLY BAY, SP 8-1, LSU 15 AND LSU 16 COMPOSITE *FISH BONES*

Analyte	Units	41836	41837	41838
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02±0.01	<0.01
Moisture	%	54.41±0.6	78.71±0.7	57.01±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.08±0.01	0.06±0.02
Barium	ug/g	3.7±0.07	0.08±0.01	5.2±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	<0.002	0.01±0.01
Copper	ug/g	0.21±0.06	0.24±0.05	0.22±0.06
Iron	ug/g	4.5±1	1.9±1	4.1±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	54±1	0.33±0.08	49±1
Molybdenum	ug/g	0.43±0.1	0.02±0.02	0.22±0.1
Nickel	ug/g	0.07±0.02	<0.01	0.07±0.02
Selenium	ug/g	0.19±0.06	0.25±0.05	0.19±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	133±2	0.68±0.1	148±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17±0.05	0.08±0.02	0.19±0.05
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	21±2	5.9±0.7	25±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	0.0007±0.0004	0.002±0.001
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	0.002±0.002	<0.0001	<0.002

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41839 09/23/2011 KELLY BAY, SP 8-1, LSU 17 AND LSU 18 COMPOSITE *FISH FLESH*
41840 09/23/2011 KELLY BAY, SP 8-1, LSU 17 AND LSU 18 COMPOSITE *FISH BONES*
41841 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 01 *FISH FLESH*

Analyte	Units	41839	41840	41841
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.01±0.01	0.09±0.04
Moisture	%	81.03±0.7	61.18±0.6	78.43±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08±0.01	0.05±0.02	0.05±0.01
Barium	ug/g	0.04±0.01	4.1±0.07	0.02±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004±0.002	0.01±0.01	0.002±0.002
Copper	ug/g	0.14±0.04	0.17±0.06	0.28±0.05
Iron	ug/g	1.6±0.9	2.8±1	2.8±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.28±0.07	50±1	0.12±0.05
Molybdenum	ug/g	0.03±0.02	0.25±0.1	<0.02
Nickel	ug/g	0.03±0.01	0.07±0.02	0.04±0.01
Selenium	ug/g	0.20±0.04	0.20±0.06	0.64±0.07
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.39±0.08	128±2	0.14±0.05
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06±0.02	0.20±0.06	0.09±0.03
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.7±0.6	23±2	6.2±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.0009±0.0006	0.0008±0.0004
Radium-226	Bq/g	<0.00007	<0.001	0.00006±0.00006
Thorium-230	Bq/g	<0.0001	<0.002	0.0003±0.0002

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41842 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 01 *FISH BONES*
41843 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 02 *FISH FLESH*
41844 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 02 *FISH BONES*

Analyte	Units	41842	41843	41844
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.06±0.02	<0.01
Moisture	%	59.11±0.6	78.59±0.7	58.41±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.08±0.02	0.06±0.01	0.17±0.02
Barium	ug/g	7.3±0.1	0.04±0.01	6.0±0.09
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.002±0.002	0.01±0.01
Copper	ug/g	0.15±0.05	0.25±0.05	0.12±0.05
Iron	ug/g	4.9±1	2.3±1	3.9±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	16±0.8	0.13±0.05	12±0.7
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09±0.02	0.03±0.01	0.09±0.02
Selenium	ug/g	0.32±0.07	0.52±0.07	0.33±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	81±2	0.27±0.07	85±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.27±0.07	0.07±0.02	0.23±0.06
Uranium	ug/g	0.29±0.05	<0.001	0.20±0.04
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61±3	6.6±0.7	68±3
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001±0.0006	0.0010±0.0005	0.0008±0.0005
Radium-226	Bq/g	0.002±0.002	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41845 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 03 *FISH FLESH*
41846 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 03 *FISH BONES*
41847 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 04 *FISH FLESH*

Analyte	Units	41845	41846	41847
Inorganic Chemistry				
Mercury	ug/g	0.05±0.02	0.01±0.01	0.13
Moisture	%	79.09±0.7	55.48±0.6	78.21±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05±0.01	0.15±0.02	0.05±0.01
Barium	ug/g	0.01±0.01	4.8±0.08	0.12±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002±0.002	0.01±0.01	0.002±0.002
Copper	ug/g	0.25±0.05	0.16±0.05	0.16±0.04
Iron	ug/g	2.4±1	2.8±1	2.0±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.11±0.05	9.0±0.6	0.13±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.07±0.02	<0.01
Selenium	ug/g	0.32±0.05	0.23±0.06	0.36±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.13±0.05	86±2	0.57±0.1
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.21±0.06	0.09±0.03
Uranium	ug/g	<0.001	0.05±0.02	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	7.9±0.8	70±3	6.0±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0003±0.0002	<0.0005	0.0010±0.0005
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41848 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 04 *FISH BONES*
41849 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 05 *FISH FLESH*
41850 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 05 *FISH BONES*

Analyte	Units	41848	41849	41850
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.14	0.02±0.01
Moisture	%	55.28±0.6	77.81±0.7	55.59±0.6
ICP				
Aluminum	ug/g	0.6±0.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.12±0.02	0.10±0.01	0.14±0.02
Barium	ug/g	6.7±0.09	<0.01	5.6±0.08
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.002±0.002	0.02±0.01
Copper	ug/g	0.13±0.05	0.17±0.04	0.14±0.05
Iron	ug/g	3.9±1	1.3±0.8	4.0±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	11±0.6	0.07±0.04	9.5±0.6
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12±0.02	<0.01	0.11±0.02
Selenium	ug/g	0.24±0.07	0.42±0.06	0.28±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	113±2	0.09±0.04	98±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.32±0.07	0.07±0.02	0.31±0.07
Uranium	ug/g	0.15±0.04	<0.001	0.28±0.05
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	57±3	3.5±0.5	55±3
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	0.0004±0.0002	0.0008±0.0005
Radium-226	Bq/g	0.005±0.003	<0.00006	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41851 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 07 *FISH FLESH*
41852 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 07 *FISH BONES*
41853 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 01 *FISH FLESH*

Analyte	Units	41851	41852	41853
Inorganic Chemistry				
Mercury	ug/g	0.24±0.1	0.04±0.02	0.04±0.03
Moisture	%	76.84±0.7	55.27±0.6	77.79±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.01±0.01	0.04±0.02	0.02±0.01
Barium	ug/g	0.05±0.01	2.9±0.06	0.13±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01±0.01	0.003±0.002
Copper	ug/g	0.20±0.04	0.14±0.05	0.17±0.04
Iron	ug/g	1.5±0.9	2.7±1	3.4±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.11±0.05	24±0.9	0.13±0.05
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09±0.02	0.06±0.01
Selenium	ug/g	0.22±0.04	0.17±0.06	0.24±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.12±0.05	38±1	0.19±0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.21±0.06	0.09±0.03
Uranium	ug/g	0.002±0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	6.7±0.7	63±3	5.9±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0025±0.001	0.001±0.0006	0.0023±0.001
Radium-226	Bq/g	<0.00006	<0.001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41854 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 01 *FISH BONES*
41855 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 02 *FISH FLESH*
41856 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 02 *FISH BONES*

Analyte	Units	41854	41855	41856
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.11±0.04	0.03±0.02
Moisture	%	58.09±0.6	78.47±0.7	61.04±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.04±0.02	0.02±0.01	0.03±0.02
Barium	ug/g	2.8±0.06	0.03±0.01	3.2±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	<0.002	0.02±0.01
Copper	ug/g	0.16±0.05	0.19±0.04	0.21±0.06
Iron	ug/g	4.0±1	1.8±0.9	23±3
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	21±0.9	0.09±0.04	16±0.8
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10±0.02	0.03±0.01	0.07±0.02
Selenium	ug/g	0.17±0.06	0.25±0.05	0.20±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	43±1	0.12±0.05	42±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22±0.06	0.09±0.03	0.38±0.08
Uranium	ug/g	<0.01	0.002±0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	69±3	5.3±0.7	55±3
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.003
Polonium-210	Bq/g	0.003±0.002	0.0037±0.002	0.002±0.001
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41857 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 03 *FISH FLESH*
41858 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 03 *FISH BONES*
41859 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 06 *FISH FLESH*

Analyte	Units	41857	41858	41859
Inorganic Chemistry				
Mercury	ug/g	0.18±0.09	0.04±0.02	0.34±0.2
Moisture	%	77.74±0.7	56.54±0.6	78.49±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02±0.01	0.04±0.02	0.01±0.01
Barium	ug/g	0.01±0.01	3.8±0.07	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02±0.01	<0.002
Copper	ug/g	0.14±0.04	0.16±0.05	0.18±0.04
Iron	ug/g	1.3±0.8	3.9±1	11±2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.13±0.05	23±0.9	0.19±0.06
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.05±0.01	0.09±0.02	<0.01
Selenium	ug/g	0.23±0.04	0.18±0.06	0.26±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.11±0.05	52±1	0.11±0.05
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.10±0.03	0.31±0.07	0.08±0.02
Uranium	ug/g	0.009±0.003	<0.01	0.018±0.004
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	6.1±0.7	90±4	5.4±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0012±0.0006	0.001±0.0006	0.0024±0.001
Radium-226	Bq/g	<0.00006	<0.001	<0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0002

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41860 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 06 *FISH BONES*
41861 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 02 *FISH FLESH*
41862 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 02 *FISH BONES*

Analyte	Units	41860	41861	41862
Inorganic Chemistry				
Mercury	ug/g	0.07±0.04	0.04±0.02	<0.01
Moisture	%	59.37±0.6	77.34±0.7	58.58±0.6
ICP				
Aluminum	ug/g	<0.5	1.6±1	7.0
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03±0.02	0.18±0.01	0.10±0.02
Barium	ug/g	3.6±0.07	0.31±0.02	5.8±0.09
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.005±0.002	0.02±0.01
Copper	ug/g	0.20±0.06	0.18±0.04	0.20±0.06
Iron	ug/g	2.5±1	3.4±1	18±3
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	24±0.9	1.3±0.1	20±0.9
Molybdenum	ug/g	<0.05	<0.02	0.32±0.1
Nickel	ug/g	0.09±0.02	<0.01	0.11±0.02
Selenium	ug/g	0.19±0.06	0.40±0.06	0.33±0.08
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	47±1	3.4±0.2	88±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17±0.05	0.13±0.03	0.34±0.08
Uranium	ug/g	<0.01	0.006±0.002	0.13±0.03
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61±3	4.9±0.6	25±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.003
Polonium-210	Bq/g	0.002±0.001	0.0039±0.002	0.004±0.002
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41863 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 03 *FISH FLESH*
41864 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 03 *FISH BONES*
41865 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 01 *FISH FLESH*

Analyte	Units	41863	41864	41865
Inorganic Chemistry				
Mercury	ug/g	0.07±0.04	0.01±0.01	0.11±0.07
Moisture	%	79.75±0.7	45.99±0.5	77.74±0.7
ICP				
Aluminum	ug/g	2.4±2	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.15±0.01	0.11±0.02	0.05±0.01
Barium	ug/g	0.15±0.01	4.6±0.08	0.15±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002±0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.005±0.002	0.02±0.01	0.006±0.002
Copper	ug/g	0.27±0.05	0.19±0.06	0.43±0.06
Iron	ug/g	11±7	5.1±2	5.7±2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.41±0.08	12±0.7	0.68±0.1
Molybdenum	ug/g	<0.02	0.23±0.1	<0.02
Nickel	ug/g	0.03±0.01	0.11±0.02	<0.01
Selenium	ug/g	0.34±0.05	0.31±0.07	0.32±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.2±0.1	81±2	1.7±0.2
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.20±0.04	0.29±0.07	0.09±0.03
Uranium	ug/g	<0.001	0.03±0.02	0.001±0.001
Vanadium	ug/g	0.02±0.02	<0.05	<0.02
Zinc	ug/g	6.4±0.7	24±2	5.5±0.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0013±0.0006	0.002±0.001	0.0020±0.0009
Radium-226	Bq/g	<0.00006	<0.002	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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41866 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 01 *FISH BONES*
41867 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 02 *FISH FLESH*
41868 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 02 *FISH BONES*

Analyte	Units	41866	41867	41868
Inorganic Chemistry				
Mercury	ug/g	0.02±0.01	0.16±0.09	0.03±0.02
Moisture	%	42.97±0.5	78.84±0.7	51.47±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05±0.02	0.05±0.01	0.05±0.02
Barium	ug/g	4.2±0.07	0.15±0.01	4.1±0.07
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.008±0.002	0.02±0.01
Copper	ug/g	0.26±0.07	0.65±0.07	0.40±0.08
Iron	ug/g	5.5±2	8.0±2	3.8±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	17±0.8	0.61±0.1	18±0.8
Molybdenum	ug/g	0.07±0.06	<0.02	0.10±0.07
Nickel	ug/g	0.08±0.02	0.02±0.01	0.08±0.02
Selenium	ug/g	0.27±0.07	0.44±0.06	0.31±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	65±1	1.1±0.1	54±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.31±0.07	0.09±0.03	0.21±0.06
Uranium	ug/g	0.02±0.01	0.002±0.001	0.03±0.02
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	20±2	5.9±0.7	17±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002±0.001	0.0012±0.0006	0.003±0.002
Radium-226	Bq/g	<0.002	<0.00006	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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41869 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 03 *FISH FLESH*
41870 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 03 *FISH BONES*
41871 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 04 *FISH FLESH*

Analyte	Units	41869	41870	41871
Inorganic Chemistry				
Mercury	ug/g	0.06±0.03	0.02	0.06
Moisture	%	76.68±0.7	45.17±0.5	75.14±0.7
ICP				
Aluminum	ug/g	<0.5	0.6±0.6	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.20±0.01	0.12±0.02	0.08±0.01
Barium	ug/g	0.02±0.01	5.2±0.08	0.04±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004±0.002	0.03±0.01	0.003±0.002
Copper	ug/g	0.33±0.05	0.28±0.07	0.34±0.05
Iron	ug/g	2.8±1	5.4±2	2.9±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.10±0.04	23±0.9	0.09±0.04
Molybdenum	ug/g	<0.02	0.16±0.09	<0.02
Nickel	ug/g	0.04±0.01	0.13±0.02	0.03±0.01
Selenium	ug/g	0.37±0.06	0.31±0.07	0.27±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.06±0.03	77±2	0.07±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.24±0.06	0.08±0.02
Uranium	ug/g	0.001±0.001	0.02±0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.6±0.7	22±2	3.5±0.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0021±0.001	0.005±0.002	0.0025±0.001
Radium-226	Bq/g	<0.00007	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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41872 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 04 *FISH BONES*
41873 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 05 *FISH FLESH*
41874 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 05 *FISH BONES*

Analyte	Units	41872	41873	41874
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.33±0.2	0.05±0.02
Moisture	%	49.69±0.6	78.11±0.7	42.20±0.5
ICP				
Aluminum	ug/g	<0.5	<0.5	0.8±0.7
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.07±0.02	0.04±0.01	0.04±0.02
Barium	ug/g	4.3±0.08	0.02±0.01	8.3±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02±0.01	0.006±0.002	0.03±0.01
Copper	ug/g	0.19±0.06	0.28±0.05	0.27±0.07
Iron	ug/g	2.4±1	2.5±1	6.6±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	19±0.8	0.12±0.05	34±1
Molybdenum	ug/g	0.21±0.1	<0.02	0.09±0.07
Nickel	ug/g	0.09±0.02	0.03±0.01	0.12±0.02
Selenium	ug/g	0.17±0.06	0.21±0.04	0.20±0.06
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	68±2	0.07±0.04	86±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.21±0.06	0.07±0.02	0.34±0.08
Uranium	ug/g	0.08±0.03	<0.001	0.06±0.02
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	17±2	3.5±0.5	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.007±0.003	0.0008±0.0004	0.001±0.0006
Radium-226	Bq/g	<0.001	0.0001±0.00009	<0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.003

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41875 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 06 *FISH FLESH*
41876 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 06 *FISH BONES*
41877 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 07 *FISH FLESH*

Analyte	Units	41875	41876	41877
Inorganic Chemistry				
Mercury	ug/g	0.06±0.03	0.02±0.01	0.09±0.04
Moisture	%	75.91±0.7	46.72±0.5	76.73±0.7
ICP				
Aluminum	ug/g	0.5±0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.19±0.01	0.18±0.02	0.22±0.01
Barium	ug/g	0.08±0.01	2.5±0.06	0.04±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.01±0.01	0.002±0.002
Copper	ug/g	0.26±0.05	0.24±0.07	0.21±0.04
Iron	ug/g	2.0±1	3.5±1	2.0±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.26±0.07	8.3±0.6	0.12±0.05
Molybdenum	ug/g	0.02±0.02	0.23±0.1	<0.02
Nickel	ug/g	<0.01	0.08±0.02	0.04±0.01
Selenium	ug/g	0.31±0.05	0.32±0.07	0.41±0.06
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.51±0.09	45±1	0.06±0.03
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09±0.03	0.17±0.05	0.07±0.02
Uranium	ug/g	<0.001	0.02±0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.2±0.6	17±2	4.0±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0021±0.001	0.002±0.001	0.0029±0.001
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41878 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 07 *FISH BONES*
41879 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 11 *FISH FLESH*
41880 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 11 *FISH BONES*

Analyte	Units	41878	41879	41880
Inorganic Chemistry				
Mercury	ug/g	0.01±0.01	0.04±0.02	0.01±0.01
Moisture	%	50.96±0.6	76.04±0.7	52.31±0.6
ICP				
Aluminum	ug/g	0.6±0.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.09±0.02	0.15±0.01	0.10±0.02
Barium	ug/g	7.3±0.1	0.05±0.01	7.7±0.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03±0.01	0.003±0.002	0.03±0.01
Copper	ug/g	0.19±0.06	0.38±0.06	0.20±0.06
Iron	ug/g	6.6±2	3.5±1	5.9±2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	22±0.9	0.14±0.05	29±1
Molybdenum	ug/g	0.31±0.1	<0.02	0.33±0.1
Nickel	ug/g	0.20±0.02	<0.01	0.15±0.02
Selenium	ug/g	0.36±0.08	0.32±0.05	0.32±0.07
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	127±2	0.07±0.04	119±2
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.55±0.1	0.07±0.02	0.34±0.08
Uranium	ug/g	0.05±0.02	<0.001	0.05±0.02
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	37±2	5.4±0.7	33±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.005±0.002	0.0034±0.001	0.003±0.002
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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Mar 07, 2012

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41881 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 01 *FISH FLESH*
41882 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 01 *FISH BONES*
41883 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 02 *FISH FLESH*

Analyte	Units	41881	41882	41883
Inorganic Chemistry				
Mercury	ug/g	0.20±0.1	0.04±0.02	0.08±0.04
Moisture	%	79.62±0.7	49.82±0.6	79.17±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.06±0.01	0.09±0.02	0.10±0.01
Barium	ug/g	0.07±0.01	3.9±0.07	0.02±0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.003±0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004±0.002	0.02±0.01	0.003±0.002
Copper	ug/g	0.27±0.05	0.24±0.07	0.39±0.06
Iron	ug/g	2.7±1	4.0±1	3.8±1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.41±0.08	20±0.9	0.09±0.04
Molybdenum	ug/g	<0.02	0.16±0.09	<0.02
Nickel	ug/g	0.02±0.01	0.10±0.02	<0.01
Selenium	ug/g	0.38±0.06	0.34±0.08	0.34±0.05
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.55±0.1	61±1	0.09±0.04
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07±0.02	0.33±0.08	0.07±0.02
Uranium	ug/g	0.001±0.001	0.03±0.02	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6±0.5	18±2	4.9±0.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0023±0.001	0.003±0.002	0.0007±0.0004
Radium-226	Bq/g	0.00009±0.00008	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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Mar 07, 2012

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41884 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 02 *FISH BONES*
41885 10/26/2011 FOND DU LAC RIVER, SP5-1, LT 08 *FISH FLESH*
41886 10/26/2011 FOND DU LAC RIVER, SP5-1, LT 08 *FISH BONES*

Analyte	Units	41884	41885	41886
Inorganic Chemistry				
Mercury	ug/g	0.03±0.02	0.42±0.2	0.23±0.1
Moisture	%	42.51±0.5	72.27±0.7	51.42±0.6
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.11±0.02	0.04±0.01	0.11±0.02
Barium	ug/g	3.5±0.07	0.02±0.01	0.91±0.04
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01±0.01	0.003±0.002	0.01±0.01
Copper	ug/g	0.21±0.06	0.44±0.06	0.10±0.04
Iron	ug/g	3.4±1	4.1±1	2.5±1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	11±0.6	0.21±0.06	2.4±0.3
Molybdenum	ug/g	0.23±0.1	<0.02	<0.05
Nickel	ug/g	0.08±0.02	<0.01	0.08±0.02
Selenium	ug/g	0.28±0.07	0.25±0.05	0.15±0.05
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	48±1	0.49±0.09	58±1
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.15±0.05	0.07±0.02	0.25±0.06
Uranium	ug/g	0.03±0.02	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	17±2	10±3	26±2
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001±0.0006	<0.0002	0.001±0.0006
Radium-226	Bq/g	<0.002	<0.0001	<0.001
Thorium-230	Bq/g	<0.003	<0.0002	<0.002

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Mar 07, 2012

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41887 10/28/2011 FOND DU LAC RIVER, SP7-2, LT 15 *FISH FLESH*
41888 10/28/2011 FOND DU LAC RIVER, SP7-2, LT 15 *FISH BONES*

Analyte	Units	41887	41888
Inorganic Chemistry			
Mercury	ug/g	0.40±0.2	0.23±0.1
Moisture	%	79.61±0.7	58.73±0.6
ICP			
Aluminum	ug/g	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05
Arsenic	ug/g	0.04±0.01	0.05±0.02
Barium	ug/g	<0.01	0.85±0.04
Beryllium	ug/g	<0.002	<0.01
Boron	ug/g	<0.2	<0.5
Cadmium	ug/g	<0.002	<0.01
Chromium	ug/g	<0.1	<0.2
Cobalt	ug/g	<0.002	0.01±0.01
Copper	ug/g	0.19±0.04	0.15±0.05
Iron	ug/g	1.9±1	6.1±2
Lead	ug/g	<0.002	<0.01
Manganese	ug/g	0.05±0.03	2.3±0.3
Molybdenum	ug/g	<0.02	<0.05
Nickel	ug/g	<0.01	0.09±0.02
Selenium	ug/g	0.23±0.04	0.21±0.06
Silver	ug/g	<0.002	<0.01
Strontium	ug/g	0.03±0.02	58±1
Thallium	ug/g	<0.01	<0.02
Tin	ug/g	<0.01	<0.02
Titanium	ug/g	0.07±0.02	0.25±0.06
Uranium	ug/g	<0.001	<0.01
Vanadium	ug/g	<0.02	<0.05
Zinc	ug/g	3.1±0.5	24±2
Radio Chemistry			
Lead-210	Bq/g	<0.001	<0.002
Polonium-210	Bq/g	<0.0002	0.0006±0.0005
Radium-226	Bq/g	<0.00007	<0.001
Thorium-230	Bq/g	<0.0001	<0.002

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Mar 07, 2012

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2011-11384

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	ug/g	1110	1300
Aluminum	ug/g	1200	1190
Aluminum	ug/g	1110	1210
Arsenic	ug/g	7.34	8.52
Arsenic	ug/g	6.88	6.64
Cadmium	ug/g	0.302	0.289
Cadmium	ug/g	0.290	0.282
Chromium	ug/g	1.53	1.49
Chromium	ug/g	1.61	1.45
Copper	ug/g	14.8	15.6
Copper	ug/g	14.3	15.0
Copper	ug/g	14.8	15.0
Iron	ug/g	302	331
Iron	ug/g	302	305
Lead	ug/g	0.270	0.204
Lead	ug/g	0.225	0.165
Lead	ug/g	0.270	0.235
Lead-210	Bq/L	22.0	20.6
Lead-210	Bq	6.64	7.40
Lead-210	Bq/L	22.0	23.1
Lead-210	Bq	1.61	1.76
Lead-210	Bq/L	22.0	21.1
Lead-210	Bq	0.644	0.622

QC Analysis	Units	Target Value	Obtained Value
Lead-210	Bq/L	22.0	18.3
Lead-210	Bq	6.64	6.32
Lead-210	Bq/L	22.0	19.3
Lead-210	Bq	0.322	0.306
Lead-210	Bq/L	22.0	21.1
Lead-210	Bq	1.61	1.61
Lead-210	Bq/L	22.0	18.2
Lead-210	Bq	0.644	0.639
Lead-210	Bq/L	22.0	22.0
Lead-210	Bq	0.644	0.636
Lead-210	Bq/L	22.0	20.8
Lead-210	Bq	1.61	1.61
Lead-210	Bq/L	22.0	22.0
Lead-210	Bq	0.322	0.310
Manganese	ug/g	3.02	2.95
Manganese	ug/g	2.87	2.95
Mercury	ug/g	0.382	0.452
Mercury	ug/g	0.382	0.370
Mercury	ug/g	0.382	0.468
Mercury	ug/g	0.382	0.311
Mercury	ug/g	0.382	0.448
Mercury	ug/g	0.382	0.428
Nickel	ug/g	1.28	1.21
Nickel	ug/g	1.16	1.18
Polonium-210	Bq/L	22.0	19.1
Polonium-210	Bq	0.064	0.068
Polonium-210	Bq/L	22.0	21.1
Polonium-210	Bq	1.61	1.67
Polonium-210	Bq/L	22.0	19.4
Polonium-210	Bq	0.064	0.071
Polonium-210	Bq/L	22.0	19.2
Polonium-210	Bq/L	22.0	20.0
Polonium-210	Bq	1.61	1.55
Polonium-210	Bq	0.322	0.302
Polonium-210	Bq/L	22.0	20.0
Polonium-210	Bq	0.644	0.666
Polonium-210	Bq/L	22.0	18.0
Polonium-210	Bq	0.644	0.601
Polonium-210	Bq/L	22.0	18.8
Polonium-210	Bq	1.61	1.49
Polonium-210	Bq/L	22.0	18.9
Polonium-210	Bq	0.644	0.682
Polonium-210	Bq/L	22.0	23.4
Polonium-210	Bq	0.322	0.326
Radium-226	Bq/L	20.1	22.5

QC Analysis	Units	Target Value	Obtained Value	
Radium-226	Bq	0.043	0.047	
Radium-226	Bq/L	20.1	19.8	
Radium-226	Bq	0.427	0.394	
Radium-226	Bq/L	20.1	20.0	
Radium-226	Bq	2.13	1.77	*(1)
Radium-226	Bq/L	20.1	20.2	
Radium-226	Bq	2.13	2.13	
Radium-226	Bq/L	20.1	19.9	
Radium-226	Bq	0.043	0.049	
Selenium	ug/g	3.63	4.42	
Selenium	ug/g	3.70	3.68	
Silver	ug/g	0.0240	0.0249	
Silver	ug/g	0.0250	0.0262	
Thorium-230	Bq/L	24.0	24.9	
Thorium-230	Bq/L	24.0	25.2	
Thorium-230	Bq/L	24.0	25.6	
Thorium-230	Bq/L	24.0	22.7	
Thorium-232	Bq	0.216	0.209	
Thorium-232	Bq	0.216	0.219	
Thorium-232	Bq	0.216	0.230	
Thorium-232	Bq	0.216	0.238	
Zinc	ug/g	46.5	51.1	
Zinc	ug/g	45.4	51.8	

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.002	<0.002
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Silver	ug/g	<0.01	<0.01
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	0.6	0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	1.6	1.5
Aluminum	ug/g	1.0	1.0
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Aluminum	ug/g	<0.5	<0.5
Arsenic	ug/g	0.06	0.05
Arsenic	ug/g	0.12	0.10
Arsenic	ug/g	0.31	0.29
Arsenic	ug/g	0.03	0.03
Arsenic	ug/g	0.04	0.04
Arsenic	ug/g	0.02	0.02
Arsenic	ug/g	0.08	0.08
Arsenic	ug/g	0.04	0.04
Arsenic	ug/g	0.04	0.04
Arsenic	ug/g	0.16	0.14
Arsenic	ug/g	0.33	0.33
Arsenic	ug/g	0.02	0.04
Arsenic	ug/g	0.04	0.03
Arsenic	ug/g	0.14	0.13
Arsenic	ug/g	0.12	0.10
Arsenic	ug/g	0.05	0.05
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.5	<0.5
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2

Duplicate Analysis	Units	First Result	Second Result
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Boron	ug/g	<0.2	<0.2
Barium	ug/g	0.04	0.04
Barium	ug/g	0.01	0.02
Barium	ug/g	<0.01	<0.01
Barium	ug/g	<0.01	0.08
Barium	ug/g	0.13	0.06
Barium	ug/g	0.06	0.04
Barium	ug/g	0.04	0.04
Barium	ug/g	<0.01	<0.01
Barium	ug/g	7.9	10
Barium	ug/g	3.4	4.1
Barium	ug/g	3.5	3.2
Barium	ug/g	9.4	8.4
Barium	ug/g	6.6	9.4
Barium	ug/g	5.6	5.9
Barium	ug/g	5.2	3.6
Barium	ug/g	0.03	0.03
Barium	ug/g	0.84	0.86
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.01	<0.01
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Beryllium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002
Cadmium	ug/g	<0.002	<0.002

Duplicate Analysis	Units	First Result	Second Result	
Cadmium	ug/g	<0.002	<0.002	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cadmium	ug/g	<0.01	<0.01	
Cobalt	ug/g	0.01	0.01	
Cobalt	ug/g	0.004	0.003	
Cobalt	ug/g	0.03	0.01	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	0.01	0.01	
Cobalt	ug/g	0.02	0.01	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	0.02	0.02	
Cobalt	ug/g	0.003	0.003	
Cobalt	ug/g	<0.002	<0.002	
Cobalt	ug/g	0.003	0.004	
Cobalt	ug/g	0.004	0.025	*(2)
Cobalt	ug/g	<0.002	0.004	
Cobalt	ug/g	0.002	0.003	
Cobalt	ug/g	0.004	0.005	
Cobalt	ug/g	0.002	0.002	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	0.2	
Chromium	ug/g	<0.1	0.7	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.1	<0.1	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Copper	ug/g	0.15	0.17	
Copper	ug/g	0.36	0.31	
Copper	ug/g	0.28	0.31	
Copper	ug/g	0.14	0.14	

Duplicate Analysis	Units	First Result	Second Result	
Copper	ug/g	0.20	0.21	
Copper	ug/g	0.14	0.13	
Copper	ug/g	0.09	0.11	
Copper	ug/g	0.14	0.14	
Copper	ug/g	0.38	0.32	
Copper	ug/g	0.34	0.28	
Copper	ug/g	0.19	0.19	
Copper	ug/g	0.17	0.16	
Copper	ug/g	0.18	0.25	
Copper	ug/g	0.11	0.18	
Copper	ug/g	0.11	0.19	
Copper	ug/g	0.60	0.15	*(3)
Copper	ug/g	0.20	0.19	
Iron	ug/g	2.4	1.9	
Iron	ug/g	<5	<5	
Iron	ug/g	4.4	3.1	
Iron	ug/g	1.1	2.1	
Iron	ug/g	1.7	5.1	
Iron	ug/g	3.4	1.5	
Iron	ug/g	0.9	2.3	
Iron	ug/g	1.9	1.8	
Iron	ug/g	2.9	2.8	
Iron	ug/g	13	47	*(4)
Iron	ug/g	5.7	5.7	
Iron	ug/g	4.6	4.6	
Iron	ug/g	4.4	2.4	
Iron	ug/g	3.3	4.7	
Iron	ug/g	4.0	3.6	
Iron	ug/g	5.4	4.6	
Iron	ug/g	6.0	6.9	
Mercury	ug/g	0.03	0.03	
Mercury	ug/g	0.20	0.19	
Mercury	ug/g	0.04	0.04	
Mercury	ug/g	0.02	0.03	
Mercury	ug/g	0.06	0.06	
Mercury	ug/g	0.41	0.39	
Mercury	ug/g	<0.01	<0.01	
Mercury	ug/g	0.02	0.02	
Mercury	ug/g	<0.01	0.01	
Mercury	ug/g	0.02	0.01	
Mercury	ug/g	0.02	0.02	
Mercury	ug/g	0.23	0.23	
Mercury	ug/g	<0.01	<0.01	
Mercury	ug/g	0.04	0.04	
Mercury	ug/g	0.03	0.02	
Mercury	ug/g	0.09	0.09	

Duplicate Analysis	Units	First Result	Second Result	
Manganese	ug/g	0.07	0.07	
Manganese	ug/g	0.23	0.17	
Manganese	ug/g	0.12	0.31	*(5)
Manganese	ug/g	0.56	0.25	*(6)
Manganese	ug/g	0.12	0.14	
Manganese	ug/g	54	88	*(7)
Manganese	ug/g	4.0	5.2	
Manganese	ug/g	14	12	
Manganese	ug/g	0.09	0.21	
Manganese	ug/g	0.05	0.05	
Manganese	ug/g	0.13	0.19	
Manganese	ug/g	2.3	2.2	
Manganese	ug/g	23	16	
Manganese	ug/g	9.5	10	
Manganese	ug/g	97	112	
Manganese	ug/g	24	23	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	0.19	0.21	
Molybdenum	ug/g	0.16	0.12	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.02	<0.02	
Molybdenum	ug/g	<0.02	0.09	
Molybdenum	ug/g	<0.02	<0.02	
Nickel	ug/g	<0.01	<0.01	
Nickel	ug/g	<0.01	<0.01	
Nickel	ug/g	<0.01	0.12	*(8)
Nickel	ug/g	<0.01	0.93	*(9)
Nickel	ug/g	<0.01	<0.01	
Nickel	ug/g	0.12	0.12	
Nickel	ug/g	0.09	0.09	
Nickel	ug/g	0.17	0.13	
Nickel	ug/g	0.03	<0.01	
Nickel	ug/g	<0.01	0.02	
Nickel	ug/g	0.06	0.10	
Nickel	ug/g	0.09	0.11	
Nickel	ug/g	0.13	0.08	
Nickel	ug/g	0.09	0.11	

Duplicate Analysis	Units	First Result	Second Result	
Nickel	ug/g	0.10	0.10	
Nickel	ug/g	0.08	0.09	
Lead	ug/g	<0.01	0.01	
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	0.60	<0.002	*(10)
Lead	ug/g	<0.01	<0.01	
Lead	ug/g	0.01	0.01	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	<0.002	0.005	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	<0.002	<0.002	
Lead	ug/g	<0.002	<0.002	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	0.003	<0.002	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	<0.008	<0.008	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	<0.002	<0.002	
Lead-210	Bq/g	19	19	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.04	<0.04	
Lead-210	Bq/g	<0.04	<0.04	
Polonium-210	Bq/g	0.0016	0.0008	
Polonium-210	Bq/g	0.0027	0.0031	
Polonium-210	Bq/g	<0.0004	<0.0005	
Polonium-210	Bq/g	<0.0002	<0.0002	
Polonium-210	Bq/g	<0.0002	<0.0002	
Polonium-210	Bq/g	<0.0005	<0.0005	
Polonium-210	Bq/g	0.002	0.002	

Duplicate Analysis	Units	First Result	Second Result
Polonium-210	Bq/g	0.0008	0.002
Polonium-210	Bq/g	0.002	0.002
Polonium-210	Bq/g	0.0009	<0.0005
Polonium-210	Bq/g	0.0009	0.0009
Polonium-210	Bq/g	<0.0005	<0.0005
Polonium-210	Bq/g	0.0010	0.0013
Polonium-210	Bq/g	0.0013	0.0008
Polonium-210	Bq/g	0.0009	0.0006
Polonium-210	Bq/g	6.5	7.6
Polonium-210	Bq/g	<0.0002	<0.0002
Polonium-210	Bq/g	<0.005	<0.005
Polonium-210	Bq/g	<0.01	<0.01
Polonium-210	Bq/g	<0.005	<0.005
Radium-226	Bq/g	<0.001	0.002
Radium-226	Bq/g	<0.002	<0.002
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.0008	<0.0008
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.00006	<0.00006
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	<0.001	<0.001
Radium-226	Bq/g	0.07	0.07
Radium-226	Bq/g	0.05	0.06
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.05	<0.05
Antimony	ug/g	<0.02	<0.02
Antimony	ug/g	<0.02	<0.02

Duplicate Analysis	Units	First Result	Second Result	
Antimony	ug/g	<0.02	<0.02	
Selenium	ug/g	0.24	0.22	
Selenium	ug/g	0.25	0.26	
Selenium	ug/g	0.27	0.25	
Selenium	ug/g	0.45	0.47	
Selenium	ug/g	0.23	0.21	
Selenium	ug/g	0.15	0.16	
Selenium	ug/g	0.58	0.56	
Selenium	ug/g	0.22	0.23	
Selenium	ug/g	0.24	0.23	
Selenium	ug/g	0.18	0.18	
Selenium	ug/g	0.18	0.18	
Selenium	ug/g	0.21	0.22	
Selenium	ug/g	0.35	0.28	
Selenium	ug/g	0.28	0.26	
Selenium	ug/g	0.31	0.32	
Selenium	ug/g	0.21	0.22	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	0.02	<0.01	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.02	<0.02	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Tin	ug/g	<0.01	<0.01	
Strontium	ug/g	0.19	0.29	
Strontium	ug/g	0.83	0.32	*(11)
Strontium	ug/g	0.07	0.30	*(12)
Strontium	ug/g	175	197	
Strontium	ug/g	0.03	0.03	
Strontium	ug/g	194	264	
Strontium	ug/g	0.34	0.40	
Strontium	ug/g	0.18	0.25	
Strontium	ug/g	0.06	0.06	
Strontium	ug/g	0.21	0.18	
Strontium	ug/g	48	45	
Strontium	ug/g	191	173	
Strontium	ug/g	201	231	

Duplicate Analysis	Units	First Result	Second Result	
Strontium	ug/g	98	102	
Strontium	ug/g	77	51	*(13)
Strontium	ug/g	58	57	
Thorium-230	Bq/g	12	11	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.003	<0.003	
Thorium-230	Bq/g	<0.003	<0.003	
Thorium-230	Bq/g	<0.003	<0.003	
Thorium-230	Bq/g	<0.2	<0.2	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	<0.002	<0.002	
Thorium-230	Bq/g	0.04	0.03	
Thorium-230	Bq/g	0.03	0.04	
Titanium	ug/g	0.08	0.07	
Titanium	ug/g	0.06	0.07	
Titanium	ug/g	0.06	0.05	
Titanium	ug/g	0.06	0.07	
Titanium	ug/g	0.06	0.07	
Titanium	ug/g	0.29	0.46	
Titanium	ug/g	0.31	0.31	
Titanium	ug/g	0.27	0.30	
Titanium	ug/g	0.08	0.07	
Titanium	ug/g	0.07	0.07	
Titanium	ug/g	0.09	0.08	
Titanium	ug/g	0.25	0.24	
Titanium	ug/g	0.24	0.24	
Titanium	ug/g	0.31	0.30	
Titanium	ug/g	0.31	0.31	
Titanium	ug/g	0.28	0.30	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	

Duplicate Analysis	Units	First Result	Second Result	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.02	<0.02	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	
Thallium	ug/g	<0.01	<0.01	
Uranium	ug/g	<0.001	<0.001	
Uranium	ug/g	<0.001	<0.001	
Uranium	ug/g	<0.001	<0.001	
Uranium	ug/g	0.006	0.015	*(14)
Uranium	ug/g	0.049	<0.001	*(15)
Uranium	ug/g	0.40	0.52	
Uranium	ug/g	<0.01	<0.01	
Uranium	ug/g	<0.001	0.001	
Uranium	ug/g	<0.001	0.002	
Uranium	ug/g	<0.001	<0.001	
Uranium	ug/g	<0.01	<0.01	
Uranium	ug/g	0.02	0.02	
Uranium	ug/g	0.28	0.30	
Uranium	ug/g	<0.01	<0.01	
Uranium	ug/g	<0.01	<0.01	
Uranium	ug/g	0.54	0.46	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.05	0.07	
Vanadium	ug/g	0.12	0.08	
Vanadium	ug/g	<0.05	<0.05	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Vanadium	ug/g	<0.02	<0.02	
Zinc	ug/g	3	3	
Zinc	ug/g	4.3	4.0	
Zinc	ug/g	3	5	
Zinc	ug/g	4.0	4.2	
Zinc	ug/g	3.6	4.3	
Zinc	ug/g	5.3	4.1	

Duplicate Analysis	Units	First Result	Second Result	
Zinc	ug/g	3.3	5.5	*(16)
Zinc	ug/g	26	35	
Zinc	ug/g	34	43	
Zinc	ug/g	3.5	3.3	
Zinc	ug/g	3.0	3.0	
Zinc	ug/g	5.9	6.4	
Zinc	ug/g	24	24	
Zinc	ug/g	55	56	
Zinc	ug/g	22	17	
Zinc	ug/g	26	34	
Zinc	ug/g	26	24	
Zinc	ug/g	55	49	

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	Percent Recovery
Polonium-210	112
Thorium-230	97

*(1) The Radium-226 result for the calibration check standard was outside the laboratory's specified limits. The data was reviewed and additional quality control measures in the same batch were within specified limits.

*(2) - (16) The duplicate results for Cobalt, Copper, Iron, Manganese, Nickel, Lead, Strontium, Uranium and Zinc were outside the laboratory's specified limits. The data was reviewed and the samples were reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

Revised

SRC Group # 2011-11384

May 07, 2012

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422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-10-2011 Client P.O.: PROJ# 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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41737 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH FLESH*
41738 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH BONES*
41739 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH FLESH*

Analyte	Units	41737	41738	41739
Inorganic Chemistry				
Mercury	ug/g	0.04	0.02	0.01
Moisture	%	75.72	46.16	77.95
ICP				
Aluminum	ug/g	0.5	1.6	0.7
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08	0.06	0.02
Barium	ug/g	0.08	9.1	0.05
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.005	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	0.03	0.006
Copper	ug/g	0.34	0.21	0.25
Iron	ug/g	4.6	5.9	4.6
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.69	159	1.4
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02	0.13	0.07
Selenium	ug/g	0.27	0.24	0.57
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.58	178	0.37
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01

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41737 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH FLESH*
41738 09/29/2011 ARMATAGE BAY, SP91, LSU 07 *FISH BONES*
41739 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH FLESH*

Analyte	Units	41737	41738	41739
ICP				
Titanium	ug/g	0.11	0.33	0.09
Uranium	ug/g	0.003	<0.01	0.002
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.1	27	5.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0007	0.003	0.0022
Radium-226	Bq/g	<0.00007	<0.001	<0.0001
Thorium-230	Bq/g	<0.0001	<0.003	<0.0003

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Results are reported on a "raw weight" basis.
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41740 09/29/2011 ARMATAGE BAY, SP91, LSU 08 AND LSU 09 COMPOSITE *FISH BONES*
41741 09/29/2011 ARMATAGE BAY, SP91, LSU 10 AND LSU 11 COMPOSITE *FISH FLESH*
41742 09/29/2011 ARMATAGE BAY, SP91, LSU 10 AND LSU 11 COMPOSITE *FISH BONES*

Analyte	Units	41740	41741	41742
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02	<0.01
Moisture	%	52.93	77.45	49.09
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05	0.02	0.06
Barium	ug/g	10	0.02	6.2
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	0.004	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03	0.008	0.02
Copper	ug/g	0.26	0.19	0.34
Iron	ug/g	15	1.8	12
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	104	0.31	38
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.13	<0.01	0.10
Selenium	ug/g	0.25	0.53	0.21
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	275	0.23	182
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.45	0.08	0.27
Uranium	ug/g	0.02	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	43	4.1	27
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	0.0035	0.013
Radium-226	Bq/g	<0.001	<0.00006	0.010
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41743 09/29/2011 ARMATAGE BAY, SP91, LSU 12 AND LSU 13 COMPOSITE *FISH FLESH*
41744 09/29/2011 ARMATAGE BAY, SP91, LSU 12 AND LSU 13 COMPOSITE *FISH BONES*
41745 09/29/2011 ARMATAGE BAY, SP91, LSU 14 AND LSU 15 COMPOSITE *FISH FLESH*

Analyte	Units	41743	41744	41745
Inorganic Chemistry				
Mercury	ug/g	0.01	0.01	0.02
Moisture	%	77.03	55.45	77.28
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.04	0.03	0.06
Barium	ug/g	0.06	5.6	0.08
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004	0.01	0.005
Copper	ug/g	0.26	0.26	0.18
Iron	ug/g	8.5	11	1.8
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	2.0	94	0.71
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.06	<0.01
Selenium	ug/g	0.32	0.27	0.33
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.72	130	0.80
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08	0.22	0.08
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.8	24	4.8
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0030	0.005	0.0023
Radium-226	Bq/g	<0.0001	0.001	<0.0001
Thorium-230	Bq/g	<0.0002	<0.002	<0.0003

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41746 09/29/2011 ARMATAGE BAY, SP91, LSU 14 AND LSU 15 COMPOSITE *FISH BONES*
41747 09/29/2011 ARMATAGE BAY, SP9-1, WSU 02 *FISH FLESH*
41748 09/29/2011 ARMATAGE BAY, SP9-1, WSU 02 *FISH BONES*

Analyte	Units	41746	41747	41748
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.01	<0.01
Moisture	%	55.70	77.35	46.43
ICP				
Aluminum	ug/g	<0.5	<0.5	0.6
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03	0.05	0.04
Barium	ug/g	7.1	0.04	16
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.003	0.03
Copper	ug/g	1.0	0.36	0.28
Iron	ug/g	11	3.7	26
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	138	0.28	153
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09	<0.01	0.19
Selenium	ug/g	0.28	0.21	0.20
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	174	0.22	388
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.26	0.06	0.50
Uranium	ug/g	<0.01	0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	27	4.1	38
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.004	0.0020	0.003
Radium-226	Bq/g	<0.001	<0.00008	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.003

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41749 09/29/2011 ARMATAGE BAY, SP9-1, WSU 03 *FISH FLESH*
41750 09/29/2011 ARMATAGE BAY, SP9-1, WSU 03 *FISH BONES*
41751 09/29/2011 ARMATAGE BAY, SP9-1, WSU 04 *FISH FLESH*

Analyte	Units	41749	41750	41751
Inorganic Chemistry				
Mercury	ug/g	0.02	<0.01	0.01
Moisture	%	76.30	45.36	79.19
ICP				
Aluminum	ug/g	0.6	<0.5	0.7
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11	0.07	0.06
Barium	ug/g	0.16	11	0.06
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02	0.005
Copper	ug/g	0.22	0.39	0.25
Iron	ug/g	1.9	19	5.1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.63	74	0.81
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01	0.11	<0.01
Selenium	ug/g	0.21	0.16	0.20
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.2	207	0.54
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09	0.33	0.08
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.5	30	4.7
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0008	0.003	0.0020
Radium-226	Bq/g	<0.00009	0.004	0.0001
Thorium-230	Bq/g	<0.0002	<0.003	<0.0002

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41752 09/29/2011 ARMATAGE BAY, SP9-1, WSU 04 *FISH BONES*
41753 09/29/2011 ARMATAGE BAY, SP9-1, WSU 05 *FISH FLESH*
41754 09/29/2011 ARMATAGE BAY, SP9-1, WSU 05 *FISH BONES*

Analyte	Units	41752	41753	41754
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02	<0.01
Moisture	%	45.93	79.36	52.30
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.04	0.06	0.05
Barium	ug/g	7.7	0.04	7.9
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.002	0.02
Copper	ug/g	0.28	0.20	0.38
Iron	ug/g	11	2.4	13
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	80	0.23	54
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10	<0.01	0.12
Selenium	ug/g	0.19	0.18	0.15
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	179	0.21	194
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.29	0.08	0.29
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	23	4.3	26
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.004
Polonium-210	Bq/g	0.004	0.0010	0.003
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41755 09/29/2011 ARMATAGE BAY, SP9-1, WSU 06 *FISH FLESH*
41756 09/29/2011 ARMATAGE BAY, SP9-1, WSU 06 *FISH BONES*
41757 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY- SP 1-1 - LT01 *FISH FLESH*

Analyte	Units	41755	41756	41757
Inorganic Chemistry				
Mercury	ug/g	0.01	<0.01	0.13
Moisture	%	73.98	44.43	66.65
ICP				
Aluminum	ug/g	0.6	<0.5	0.9
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05	0.04	0.11
Barium	ug/g	0.04	8.5	0.03
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	0.02	<0.002
Copper	ug/g	0.39	0.25	0.27
Iron	ug/g	3.7	19	5.3
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.22	90	0.20
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.11	<0.01
Selenium	ug/g	0.20	0.15	0.16
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.20	208	0.17
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09	0.40	0.11
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.4	32	6.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0006	0.002	<0.0002
Radium-226	Bq/g	0.0002	<0.001	<0.00007
Thorium-230	Bq/g	<0.0002	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41758 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY- SP 1-1 - LT01 *FISH BONES*
41759 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT02 *FISH FLESH*
41760 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT02 *FISH BONES*

Analyte	Units	41758	41759	41760
Inorganic Chemistry				
Mercury	ug/g	0.03	0.17	0.07
Moisture	%	48.21	72.80	47.80
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.26	0.08	0.34
Barium	ug/g	1.1	<0.01	0.76
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	<0.002	0.01
Copper	ug/g	0.18	0.13	0.12
Iron	ug/g	3.5	1.9	2.2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	0.90	0.06	0.60
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.07	0.01	0.08
Selenium	ug/g	0.15	0.15	0.11
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	77	0.17	60
Thallium	ug/g	0.02	<0.01	0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17	0.07	0.19
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	21	3.4	19
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	0.0002	<0.002

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CanNorth, Canada North Environmental Services Limited

41761 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT03 *FISH FLESH*
41762 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1-1 - LT03 *FISH BONES*
41763 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT04 *FISH FLESH*

Analyte	Units	41761	41762	41763
Inorganic Chemistry				
Mercury	ug/g	0.18	0.03	0.17
Moisture	%	72.26	51.05	70.93
ICP				
Aluminum	ug/g	0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12	0.29	0.07
Barium	ug/g	0.04	1.1	0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01	<0.002
Copper	ug/g	0.20	0.11	0.24
Iron	ug/g	1.9	2.2	2.3
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.07	0.89	0.06
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.07	0.02
Selenium	ug/g	0.12	0.09	0.21
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.46	85	0.07
Thallium	ug/g	<0.01	0.02	0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08	0.23	0.08
Uranium	ug/g	0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.8	22	2.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0005	<0.0002
Radium-226	Bq/g	<0.00007	<0.0008	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	0.0001

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CanNorth, Canada North Environmental Services Limited

41764 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT04 *FISH BONES*
41765 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT05 *FISH FLESH*
41766 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LT05 *FISH BONES*

Analyte	Units	41764	41765	41766
Inorganic Chemistry				
Mercury	ug/g	0.03	0.13	0.03
Moisture	%	50.55	75.14	49.93
ICP				
Aluminum	ug/g	<0.5	<0.5	1.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.26	0.06	0.16
Barium	ug/g	0.83	<0.01	1.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	<0.01	0.003	0.01
Copper	ug/g	0.17	0.22	0.17
Iron	ug/g	6.0	3.4	10
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	0.92	0.09	0.71
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.06	<0.01	0.08
Selenium	ug/g	0.18	0.18	0.16
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	49	0.12	72
Thallium	ug/g	<0.02	<0.01	0.03
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.15	0.08	0.40
Uranium	ug/g	0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	19	7.8	23
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.0004	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41767 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW06 *FISH FLESH*
41768 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW06 *FISH BONES*
41769 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW07 *FISH FLESH*

Analyte	Units	41767	41768	41769
Inorganic Chemistry				
Mercury	ug/g	0.04	<0.01	0.04
Moisture	%	75.91	48.14	75.86
ICP				
Aluminum	ug/g	<0.5	2.7	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12	0.27	0.05
Barium	ug/g	0.63	14	0.60
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	0.2	<0.1
Cobalt	ug/g	<0.002	0.03	0.009
Copper	ug/g	0.19	0.12	0.25
Iron	ug/g	1.3	5.7	2.1
Lead	ug/g	<0.002	0.08	<0.002
Manganese	ug/g	0.09	6.6	0.08
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.15	<0.01
Selenium	ug/g	0.18	0.15	0.21
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.22	264	0.18
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.30	0.07
Uranium	ug/g	<0.001	0.19	0.007
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6	38	4.4
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.002	<0.0002
Radium-226	Bq/g	<0.00008	0.002	<0.00006
Thorium-230	Bq/g	0.0004	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41770 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW07 *FISH BONES*
41771 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW08 *FISH FLESH*
41772 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW08 *FISH BONES*

Analyte	Units	41770	41771	41772
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.09	0.04
Moisture	%	56.47	76.21	50.40
ICP				
Aluminum	ug/g	1.4	<0.5	1.0
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.14	0.12	0.16
Barium	ug/g	9.3	0.01	3.4
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	0.2
Cobalt	ug/g	0.03	0.004	0.02
Copper	ug/g	0.21	0.15	0.14
Iron	ug/g	6.7	4.4	5.7
Lead	ug/g	<0.01	<0.002	0.01
Manganese	ug/g	6.4	0.07	4.0
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.18	<0.01	0.17
Selenium	ug/g	0.19	0.58	0.45
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	233	0.34	175
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	0.02	<0.02
Titanium	ug/g	0.31	0.06	0.31
Uranium	ug/g	0.16	0.006	0.40
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	49	5.3	34
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001	0.0007	0.001
Radium-226	Bq/g	<0.001	0.0003	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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CanNorth, Canada North Environmental Services Limited

41773	**10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW09 *FISH FLESH***
41774	**10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW09 *FISH BONES***
41775	**10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW10 *FISH FLESH***

Analyte	Units	41773	41774	41775
Inorganic Chemistry				
Mercury	ug/g	0.02	<0.01	0.02
Moisture	%	73.83	55.43	74.66
ICP				
Aluminum	ug/g	<0.5	1.9	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11	0.18	0.11
Barium	ug/g	0.17	12	0.04
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.003
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02	0.004
Copper	ug/g	0.19	0.13	0.20
Iron	ug/g	1.8	5.4	4.3
Lead	ug/g	<0.002	0.02	<0.002
Manganese	ug/g	0.11	7.3	0.11
Molybdenum	ug/g	<0.02	<0.05	0.02
Nickel	ug/g	<0.01	0.12	0.08
Selenium	ug/g	2.6	1.8	0.28
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.75	211	0.45
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08	0.31	0.07
Uranium	ug/g	0.008	1.8	0.012
Vanadium	ug/g	<0.02	2.0	<0.02
Zinc	ug/g	5.0	36	4.1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0007	0.002	<0.0002
Radium-226	Bq/g	<0.00007	<0.001	<0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0002

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CanNorth, Canada North Environmental Services Limited

41776 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY - SP 1 -1 - LW10 *FISH BONES*
41777 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT01 *FISH FLESH*
41778 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT01 *FISH BONES*

Analyte	Units	41776	41777	41778
Inorganic Chemistry				
Mercury	ug/g	0.02	0.13	0.04
Moisture	%	55.27	73.73	45.36
ICP				
Aluminum	ug/g	2.6	<0.5	0.6
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.20	0.12	0.21
Barium	ug/g	18	0.04	1.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03	0.003	0.02
Copper	ug/g	0.11	0.52	0.26
Iron	ug/g	7.6	4.5	5.7
Lead	ug/g	0.04	<0.002	<0.01
Manganese	ug/g	13	0.10	0.90
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.13	0.03	0.19
Selenium	ug/g	0.24	0.14	0.14
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	286	0.30	70
Thallium	ug/g	0.02	<0.01	0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.37	0.07	0.34
Uranium	ug/g	0.29	0.014	<0.01
Vanadium	ug/g	0.24	<0.02	<0.05
Zinc	ug/g	37	11	22
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0007	<0.0002	<0.0004
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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Note for Sample # 41778
Note revised results for ICP-MS on sample 41778 5/7/2012 MTS.

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CanNorth, Canada North Environmental Services Limited

41779 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT02 *FISH FLESH*
41780 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT02 *FISH BONES*
41781 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT03 *FISH FLESH*

Analyte	Units	41779	41780	41781
Inorganic Chemistry				
Mercury	ug/g	0.20	0.05	0.28
Moisture	%	71.70	50.35	74.10
ICP				
Aluminum	ug/g	<0.5	0.7	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08	0.23	0.12
Barium	ug/g	0.01	0.70	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	<0.01	<0.002
Copper	ug/g	0.52	0.18	0.11
Iron	ug/g	3.0	2.6	1.0
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.09	1.1	0.09
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.08	<0.01
Selenium	ug/g	0.18	0.13	0.15
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.19	54	0.26
Thallium	ug/g	0.01	0.04	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.15	0.20	0.06
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.8	18	2.9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0004	<0.0002
Radium-226	Bq/g	<0.00006	<0.0008	0.0002
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41782 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1-1 - LT03 *FISH BONES*
41783 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT04 *FISH FLESH*
41784 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT04 *FISH BONES*

Analyte	Units	41782	41783	41784
Inorganic Chemistry				
Mercury	ug/g	0.06	0.07	0.02
Moisture	%	50.25	70.34	50.14
ICP				
Aluminum	ug/g	1.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.29	0.08	0.16
Barium	ug/g	0.88	<0.01	1.3
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	0.8	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	<0.01	<0.002	0.01
Copper	ug/g	0.08	0.32	0.16
Iron	ug/g	2.3	2.2	4.2
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	2.0	0.07	2.1
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.07	<0.01	0.08
Selenium	ug/g	0.12	0.16	0.13
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	62	0.20	77
Thallium	ug/g	<0.02	<0.01	0.04
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24	0.07	0.18
Uranium	ug/g	0.49	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	16	3.8	27
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	0.003
Polonium-210	Bq/g	<0.0005	<0.0002	<0.0005
Radium-226	Bq/g	<0.0009	0.00009	<0.001
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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CanNorth, Canada North Environmental Services Limited

41785 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT05 *FISH FLESH*
41786 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LT05 *FISH BONES*
41787 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW06 *FISH FLESH*

Analyte	Units	41785	41786	41787
Inorganic Chemistry				
Mercury	ug/g	0.18	0.04	0.07
Moisture	%	67.36	49.24	74.81
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.12	0.21	0.38
Barium	ug/g	<0.01	1.1	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002	0.01	<0.002
Copper	ug/g	0.28	0.10	0.12
Iron	ug/g	2.0	2.2	1.5
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.08	1.5	0.12
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.01	0.07	<0.01
Selenium	ug/g	0.18	0.13	0.29
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.15	82	0.15
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06	0.21	0.07
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.5	18	3.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	<0.0005	0.0005
Radium-226	Bq/g	0.0001	<0.0008	<0.00006
Thorium-230	Bq/g	<0.0002	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41788 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW06 *FISH BONES*
41789 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW07 *FISH FLESH*
41790 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW07 *FISH BONES*

Analyte	Units	41788	41789	41790
Inorganic Chemistry				
Mercury	ug/g	0.01	0.06	0.03
Moisture	%	50.47	78.24	56.90
ICP				
Aluminum	ug/g	3.3	<0.5	4.2
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.41	0.24	0.18
Barium	ug/g	10	0.04	15
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	<0.002	0.02
Copper	ug/g	0.09	0.15	0.19
Iron	ug/g	3.6	1.2	4.3
Lead	ug/g	0.03	<0.002	0.04
Manganese	ug/g	16	0.19	29
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09	<0.01	0.13
Selenium	ug/g	0.21	0.25	0.24
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	217	0.74	287
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24	0.07	0.44
Uranium	ug/g	0.51	0.002	0.61
Vanadium	ug/g	0.14	<0.02	0.19
Zinc	ug/g	25	2.8	27
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	<0.0002	0.004
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41791 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW08 *FISH FLESH*
41792 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW08 *FISH BONES*
41793 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW09 *FISH FLESH*

Analyte	Units	41791	41792	41793
Inorganic Chemistry				
Mercury	ug/g	0.03	0.02	0.03
Moisture	%	73.86	49.52	77.91
ICP				
Aluminum	ug/g	<0.5	2.2	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.36	0.37	0.31
Barium	ug/g	0.06	9.2	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.007	0.02	0.002
Copper	ug/g	0.38	0.24	0.11
Iron	ug/g	3.6	5.5	1.1
Lead	ug/g	<0.002	0.07	<0.002
Manganese	ug/g	0.13	6.2	0.12
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02	0.07	<0.01
Selenium	ug/g	0.25	0.21	0.22
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.0	156	0.18
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06	0.19	0.06
Uranium	ug/g	<0.001	0.26	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.4	21	3.3
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.002	<0.0002
Radium-226	Bq/g	<0.0002	0.002	<0.00006
Thorium-230	Bq/g	<0.0003	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41794 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW09 *FISH BONES*
41795 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW10 *FISH FLESH*
41796 10/05/2011 ELLIS BAY/CAMSELL PORTAGE - SP 1 -1 - LW10 *FISH BONES*

Analyte	Units	41794	41795	41796
Inorganic Chemistry				
Mercury	ug/g	0.01	0.02	<0.01
Moisture	%	52.63	76.16	56.19
ICP				
Aluminum	ug/g	2.2	<0.5	1.6
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.29	0.17	0.33
Barium	ug/g	8.0	<0.01	9.4
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.002	0.02
Copper	ug/g	0.11	0.15	0.09
Iron	ug/g	5.9	2.2	4.7
Lead	ug/g	0.02	<0.002	<0.01
Manganese	ug/g	20	0.10	14
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12	<0.01	0.09
Selenium	ug/g	0.21	0.25	0.21
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	239	0.24	191
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.35	0.07	0.27
Uranium	ug/g	0.84	<0.001	0.54
Vanadium	ug/g	0.12	<0.02	0.12
Zinc	ug/g	38	3.1	27
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.0007	<0.0002	0.001
Radium-226	Bq/g	<0.001	0.0003	<0.0009
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41797 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 01 *FISH FLESH*
41798 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 01 *FISH BONES*
41799 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 02 *FISH FLESH*

Analyte	Units	41797	41798	41799
Inorganic Chemistry				
Mercury	ug/g	0.08	0.02	0.05
Moisture	%	75.91	62.48	78.64
ICP				
Aluminum	ug/g	<0.5	1.9	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.11	0.16	0.14
Barium	ug/g	<0.01	13	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.004
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01	0.002
Copper	ug/g	0.14	0.10	0.15
Iron	ug/g	1.8	5.4	1.7
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.09	12	0.11
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09	<0.01
Selenium	ug/g	0.64	0.42	0.40
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.13	98	0.09
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.25	0.06
Uranium	ug/g	<0.001	0.06	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.3	33	3.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.002	<0.001
Polonium-210	Bq/g	0.0008	0.002	0.0011
Radium-226	Bq/g	<0.0002	0.002	0.0002
Thorium-230	Bq/g	<0.0003	<0.002	<0.0002

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May 07, 2012

CanNorth, Canada North Environmental Services Limited

41800 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 02 *FISH BONES*
41801 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 03 *FISH FLESH*
41802 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 03 *FISH BONES*

Analyte	Units	41800	41801	41802
Inorganic Chemistry				
Mercury	ug/g	0.01	0.04	0.02
Moisture	%	57.88	79.11	48.48
ICP				
Aluminum	ug/g	1.9	<0.5	4.1
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.19	0.19	0.17
Barium	ug/g	18	0.02	14
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	<0.002	0.02
Copper	ug/g	0.09	0.15	0.10
Iron	ug/g	4.0	2.1	4.6
Lead	ug/g	0.01	<0.002	0.02
Manganese	ug/g	23	0.10	19
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.08	<0.01	0.09
Selenium	ug/g	0.32	0.40	0.37
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	122	0.12	133
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24	0.06	0.34
Uranium	ug/g	0.18	<0.001	0.33
Vanadium	ug/g	0.18	<0.02	0.21
Zinc	ug/g	28	3.6	28
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	<0.0002	0.002
Radium-226	Bq/g	0.002	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41803 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 04 *FISH FLESH*
41804 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 04 *FISH BONES*
41805 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 05 *FISH FLESH*

Analyte	Units	41803	41804	41805
Inorganic Chemistry				
Mercury	ug/g	0.07	0.04	0.03
Moisture	%	75.83	50.11	77.43
ICP				
Aluminum	ug/g	<0.5	4.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.31	0.23	0.07
Barium	ug/g	<0.01	11	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.006	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002	0.02	0.006
Copper	ug/g	0.10	0.07	0.16
Iron	ug/g	1.9	7.0	2.2
Lead	ug/g	<0.002	0.01	<0.002
Manganese	ug/g	0.11	27	0.11
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.13	<0.01
Selenium	ug/g	0.78	0.55	0.31
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.12	156	0.11
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.29	0.06
Uranium	ug/g	<0.001	0.13	<0.001
Vanadium	ug/g	<0.02	0.41	<0.02
Zinc	ug/g	2.6	35	4.1
Radio Chemistry				
Lead-210	Bq/g	<0.001	0.004	<0.001
Polonium-210	Bq/g	0.0004	0.002	0.0005
Radium-226	Bq/g	<0.00006	<0.001	0.00009
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41806 10/26/2011 FOND DU LAC RIVER, SP4-1, LW 05 *FISH BONES*
41807 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 06 *FISH FLESH*
41808 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 06 *FISH BONES*

Analyte	Units	41806	41807	41808
Inorganic Chemistry				
Mercury	ug/g	0.01	0.06	0.01
Moisture	%	56.08	77.94	56.86
ICP				
Aluminum	ug/g	1.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.09	0.02	0.02
Barium	ug/g	5.9	0.04	3.4
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03	0.003	0.02
Copper	ug/g	0.10	0.29	0.17
Iron	ug/g	7.3	2.3	6.4
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	15	0.37	31
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10	<0.01	0.09
Selenium	ug/g	0.26	0.26	0.20
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	121	0.46	51
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.36	0.07	0.35
Uranium	ug/g	0.06	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	39	5.1	67
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.004	0.0031	0.001
Radium-226	Bq/g	<0.001	<0.00006	0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41809 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 072 *FISH FLESH*
41810 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 072 *FISH BONES*
41811 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 08 *FISH FLESH*

Analyte	Units	41809	41810	41811
Inorganic Chemistry				
Mercury	ug/g	0.20	0.03	0.20
Moisture	%	76.92	55.90	78.89
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.03	0.07	0.03
Barium	ug/g	0.02	3.2	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.009	0.02	0.004
Copper	ug/g	0.25	0.15	0.18
Iron	ug/g	2.3	3.2	1.7
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.21	21	0.12
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09	<0.01
Selenium	ug/g	0.31	0.24	0.24
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.22	46	0.07
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.27	0.06
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.2	62	4.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0016	0.001	0.0011
Radium-226	Bq/g	0.0001	<0.001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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41812 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 08 *FISH BONES*
41813 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 09 *FISH FLESH*
41814 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 09 *FISH BONES*

Analyte	Units	41812	41813	41814
Inorganic Chemistry				
Mercury	ug/g	0.04	0.09	0.02
Moisture	%	54.19	78.56	60.44
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05	0.02	0.02
Barium	ug/g	2.8	0.06	3.5
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.006	0.01
Copper	ug/g	0.13	0.55	0.14
Iron	ug/g	3.8	3.7	4.4
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	17	0.34	24
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09	<0.01	0.08
Selenium	ug/g	0.17	0.27	0.18
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	44	0.57	48
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.24	0.06	0.28
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	62	8.3	55
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	0.0032	0.002
Radium-226	Bq/g	0.001	0.00007	0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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41815 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 10 *FISH FLESH*
41816 10/26/2011 FOND DU LAC RIVER, SP4-1, NP 10 *FISH BONES*
41817 09/24/2011 GREEN BAY, SP 2-1, NP 02 *FISH FLESH*

Analyte	Units	41815	41816	41817
Inorganic Chemistry				
Mercury	ug/g	0.08	0.02	0.11
Moisture	%	78.58	62.72	78.45
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02	0.03	0.02
Barium	ug/g	0.04	3.5	0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	0.02	<0.002
Copper	ug/g	0.22	0.15	0.15
Iron	ug/g	1.9	3.5	1.5
Lead	ug/g	<0.002	0.03	<0.002
Manganese	ug/g	0.26	23	0.11
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02	0.08	<0.01
Selenium	ug/g	0.28	0.22	0.21
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.53	48	0.27
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.08	0.24	0.19
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.3	66	6.9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0031	0.003	0.0010
Radium-226	Bq/g	<0.00007	<0.001	<0.0001
Thorium-230	Bq/g	<0.0001	<0.002	<0.0003

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41818 09/24/2011 GREEN BAY, SP 2-1, NP 02 *FISH BONES*
41819 09/25/2011 GREEN BAY, SP 7-1, LSU 11 *FISH FLESH*
41820 09/25/2011 GREEN BAY, SP 7-1, LSU 11 *FISH BONES*

Analyte	Units	41818	41819	41820
Inorganic Chemistry				
Mercury	ug/g	0.02	0.01	0.01
Moisture	%	54.77	72.49	54.20
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03	0.11	0.05
Barium	ug/g	3.8	0.04	5.3
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.003	0.01
Copper	ug/g	0.12	0.26	0.40
Iron	ug/g	3.4	2.2	6.1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	7.4	0.18	30
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09	0.03	0.07
Selenium	ug/g	0.13	0.26	0.28
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	164	0.39	197
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22	0.06	0.14
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61	4.4	26
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	0.0034	0.009
Radium-226	Bq/g	<0.001	0.0006	0.006
Thorium-230	Bq/g	<0.002	<0.0002	<0.002

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41821 09/25/2011 GREEN BAY, SP 7-1, LSU 12 *FISH FLESH*
41822 09/25/2011 GREEN BAY, SP 7-1, LSU 12 *FISH BONES*
41823 09/25/2011 GREEN BAY, SP 7-1, LSU 13 *FISH FLESH*

Analyte	Units	41821	41822	41823
Inorganic Chemistry				
Mercury	ug/g	0.02	<0.01	0.04
Moisture	%	78.00	51.36	72.37
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.14	0.10	0.08
Barium	ug/g	0.08	4.1	0.06
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	0.01	<0.002
Copper	ug/g	0.25	0.24	0.21
Iron	ug/g	3.9	3.4	2.0
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.33	10	0.27
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.05	0.08	<0.01
Selenium	ug/g	0.25	0.21	0.25
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	2.3	169	0.92
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09	0.21	0.08
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	7.7	23	4.1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0016	0.006	0.0026
Radium-226	Bq/g	0.00007	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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CanNorth, Canada North Environmental Services Limited

41824 09/25/2011 GREEN BAY, SP 7-1, LSU 13 *FISH BONES*
41825 09/23/2011 KELLY BAY, SP 8-1, NP 01 *FISH FLESH*
41826 09/23/2011 KELLY BAY, SP 8-1, NP 01 *FISH BONES*

Analyte	Units	41824	41825	41826
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.21	0.01
Moisture	%	46.14	75.81	53.17
ICP				
Aluminum	ug/g	<0.5	<0.5	0.8
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05	0.02	0.04
Barium	ug/g	7.5	0.01	4.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	<0.002	0.01
Copper	ug/g	0.15	0.15	0.12
Iron	ug/g	4.2	1.5	2.4
Lead	ug/g	0.03	<0.002	<0.01
Manganese	ug/g	25	0.11	24
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.14	0.03	0.12
Selenium	ug/g	0.18	0.28	0.16
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	233	0.09	106
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.29	0.07	0.28
Uranium	ug/g	<0.01	0.018	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	25	4.8	51
Radio Chemistry				
Lead-210	Bq/g	0.003	<0.001	<0.002
Polonium-210	Bq/g	0.009	0.0003	0.001
Radium-226	Bq/g	<0.001	<0.0002	<0.001
Thorium-230	Bq/g	<0.002	<0.0004	<0.002

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41827 09/23/2011 KELLY BAY, SP 8-1, NP 02 *FISH FLESH*
41828 09/23/2011 KELLY BAY, SP 8-1, NP 02 *FISH BONES*
41829 09/22/2011 KELLY BAY, SP 1-1, NP 03 *FISH FLESH*

Analyte	Units	41827	41828	41829
Inorganic Chemistry				
Mercury	ug/g	0.14	0.01	0.20
Moisture	%	78.74	55.13	81.23
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02	0.03	0.01
Barium	ug/g	0.01	3.6	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01	0.002
Copper	ug/g	0.17	0.12	0.17
Iron	ug/g	1.5	2.7	2.1
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.17	21	0.11
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.02	0.10	0.02
Selenium	ug/g	0.21	0.14	0.32
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.31	116	0.10
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.25	0.08
Uranium	ug/g	0.002	<0.01	0.003
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.0	51	3.9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0013	0.0012	0.0004
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	0.003	<0.0001

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CanNorth, Canada North Environmental Services Limited

41830 09/22/2011 KELLY BAY, SP 1-1, NP 03 *FISH BONES*
41831 09/23/2011 KELLY BAY, SP 8-1, LSU 11 AND LSU 12 COMPOSITE *FISH FLESH*
41832 09/23/2011 KELLY BAY, SP 8-1, LSU 11 AND LSU 12 COMPOSITE *FISH BONES*

Analyte	Units	41830	41831	41832
Inorganic Chemistry				
Mercury	ug/g	0.04	0.03	<0.01
Moisture	%	53.55	80.61	58.61
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	<0.02	0.03	0.04
Barium	ug/g	4.2	0.22	6.6
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	0.003	0.02
Copper	ug/g	0.17	0.11	0.20
Iron	ug/g	3.9	1.5	3.3
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	15	0.43	97
Molybdenum	ug/g	<0.05	<0.02	0.19
Nickel	ug/g	0.09	0.02	0.09
Selenium	ug/g	0.21	0.17	0.35
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	102	0.68	201
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22	0.06	0.31
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	45	7.2	26
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	0.0004	0.001
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41833 09/23/2011 KELLY BAY, SP 8-1, LSU 13 *FISH FLESH*
41834 09/23/2011 KELLY BAY, SP 8-1, LSU 13 *FISH BONES*
41835 09/23/2011 KELLY BAY, SP 8-1, LSU 14 *FISH FLESH*

Analyte	Units	41833	41834	41835
Inorganic Chemistry				
Mercury	ug/g	0.02	0.01	0.02
Moisture	%	80.66	58.75	79.81
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.04	0.03	0.05
Barium	ug/g	0.06	5.1	0.07
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01	0.004
Copper	ug/g	0.11	0.16	0.15
Iron	ug/g	0.9	3.6	1.2
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.57	53	0.99
Molybdenum	ug/g	<0.02	0.15	0.04
Nickel	ug/g	<0.01	0.07	0.01
Selenium	ug/g	0.25	0.25	0.21
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.83	143	1.4
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06	0.21	0.06
Uranium	ug/g	<0.001	<0.01	0.004
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6	21	3.6
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0004	0.002	0.0003
Radium-226	Bq/g	<0.00007	0.004	0.00008
Thorium-230	Bq/g	<0.0001	<0.002	0.0001

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CanNorth, Canada North Environmental Services Limited

41836 09/23/2011 KELLY BAY, SP 8-1, LSU 14 *FISH BONES*
41837 09/23/2011 KELLY BAY, SP 8-1, LSU 15 AND LSU 16 COMPOSITE *FISH FLESH*
41838 09/23/2011 KELLY BAY, SP 8-1, LSU 15 AND LSU 16 COMPOSITE *FISH BONES*

Analyte	Units	41836	41837	41838
Inorganic Chemistry				
Mercury	ug/g	<0.01	0.02	<0.01
Moisture	%	54.41	78.71	57.01
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03	0.08	0.06
Barium	ug/g	3.7	0.08	5.2
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	<0.002	0.01
Copper	ug/g	0.21	0.24	0.22
Iron	ug/g	4.5	1.9	4.1
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	54	0.33	49
Molybdenum	ug/g	0.43	0.02	0.22
Nickel	ug/g	0.07	<0.01	0.07
Selenium	ug/g	0.19	0.25	0.19
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	133	0.68	148
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17	0.08	0.19
Uranium	ug/g	<0.01	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	21	5.9	25
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	0.0007	0.002
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41839 09/23/2011 KELLY BAY, SP 8-1, LSU 17 AND LSU 18 COMPOSITE *FISH FLESH*
41840 09/23/2011 KELLY BAY, SP 8-1, LSU 17 AND LSU 18 COMPOSITE *FISH BONES*
41841 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 01 *FISH FLESH*

Analyte	Units	41839	41840	41841
Inorganic Chemistry				
Mercury	ug/g	0.02	0.01	0.09
Moisture	%	81.03	61.18	78.43
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.08	0.05	0.05
Barium	ug/g	0.04	4.1	0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004	0.01	0.002
Copper	ug/g	0.14	0.17	0.28
Iron	ug/g	1.6	2.8	2.8
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.28	50	0.12
Molybdenum	ug/g	0.03	0.25	<0.02
Nickel	ug/g	0.03	0.07	0.04
Selenium	ug/g	0.20	0.20	0.64
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.39	128	0.14
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.06	0.20	0.09
Uranium	ug/g	<0.001	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.7	23	6.2
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	<0.0002	0.0009	0.0008
Radium-226	Bq/g	<0.00007	<0.001	0.00006
Thorium-230	Bq/g	<0.0001	<0.002	0.0003

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41842 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 01 *FISH BONES*
41843 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 02 *FISH FLESH*
41844 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 02 *FISH BONES*

Analyte	Units	41842	41843	41844
Inorganic Chemistry				
Mercury	ug/g	0.02	0.06	<0.01
Moisture	%	59.11	78.59	58.41
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.08	0.06	0.17
Barium	ug/g	7.3	0.04	6.0
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.002	0.01
Copper	ug/g	0.15	0.25	0.12
Iron	ug/g	4.9	2.3	3.9
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	16	0.13	12
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.09	0.03	0.09
Selenium	ug/g	0.32	0.52	0.33
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	81	0.27	85
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.27	0.07	0.23
Uranium	ug/g	0.29	<0.001	0.20
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61	6.6	68
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001	0.0010	0.0008
Radium-226	Bq/g	0.002	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41845 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 03 *FISH FLESH*
41846 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 03 *FISH BONES*
41847 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 04 *FISH FLESH*

Analyte	Units	41845	41846	41847
Inorganic Chemistry				
Mercury	ug/g	0.05	0.01	0.13
Moisture	%	79.09	55.48	78.21
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.05	0.15	0.05
Barium	ug/g	0.01	4.8	0.12
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.002	0.01	0.002
Copper	ug/g	0.25	0.16	0.16
Iron	ug/g	2.4	2.8	2.0
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.11	9.0	0.13
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.07	<0.01
Selenium	ug/g	0.32	0.23	0.36
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.13	86	0.57
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.21	0.09
Uranium	ug/g	<0.001	0.05	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	7.9	70	6.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0003	<0.0005	0.0010
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41848 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 04 *FISH BONES*
41849 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 05 *FISH FLESH*
41850 10/04/2011 CRACKINGSTONE INLET/URANIUM CITY, SP1-1, NP 05 *FISH BONES*

Analyte	Units	41848	41849	41850
Inorganic Chemistry				
Mercury	ug/g	0.02	0.14	0.02
Moisture	%	55.28	77.81	55.59
ICP				
Aluminum	ug/g	0.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.12	0.10	0.14
Barium	ug/g	6.7	<0.01	5.6
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.002	0.02
Copper	ug/g	0.13	0.17	0.14
Iron	ug/g	3.9	1.3	4.0
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	11	0.07	9.5
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.12	<0.01	0.11
Selenium	ug/g	0.24	0.42	0.28
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	113	0.09	98
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.32	0.07	0.31
Uranium	ug/g	0.15	<0.001	0.28
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	57	3.5	55
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	<0.0005	0.0004	0.0008
Radium-226	Bq/g	0.005	<0.00006	0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41851 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 07 *FISH FLESH*
41852 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 07 *FISH BONES*
41853 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 01 *FISH FLESH*

Analyte	Units	41851	41852	41853
Inorganic Chemistry				
Mercury	ug/g	0.24	0.04	0.04
Moisture	%	76.84	55.27	77.79
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.01	0.04	0.02
Barium	ug/g	0.05	2.9	0.13
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.01	0.003
Copper	ug/g	0.20	0.14	0.17
Iron	ug/g	1.5	2.7	3.4
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.11	24	0.13
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	<0.01	0.09	0.06
Selenium	ug/g	0.22	0.17	0.24
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.12	38	0.19
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09	0.21	0.09
Uranium	ug/g	0.002	<0.01	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	6.7	63	5.9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0025	0.001	0.0023
Radium-226	Bq/g	<0.00006	<0.001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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May 07, 2012

CanNorth, Canada North Environmental Services Limited

41854 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 01 *FISH BONES*
41855 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 02 *FISH FLESH*
41856 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 02 *FISH BONES*

Analyte	Units	41854	41855	41856
Inorganic Chemistry				
Mercury	ug/g	0.02	0.11	0.03
Moisture	%	58.09	78.47	61.04
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.04	0.02	0.03
Barium	ug/g	2.8	0.03	3.2
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	<0.002	0.02
Copper	ug/g	0.16	0.19	0.21
Iron	ug/g	4.0	1.8	23
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	21	0.09	16
Molybdenum	ug/g	<0.05	<0.02	<0.05
Nickel	ug/g	0.10	0.03	0.07
Selenium	ug/g	0.17	0.25	0.20
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	43	0.12	42
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.22	0.09	0.38
Uranium	ug/g	<0.01	0.002	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	69	5.3	55
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.003
Polonium-210	Bq/g	0.003	0.0037	0.002
Radium-226	Bq/g	<0.001	<0.00007	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41857 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 03 *FISH FLESH*
41858 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 2-1, NP 03 *FISH BONES*
41859 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 06 *FISH FLESH*

Analyte	Units	41857	41858	41859
Inorganic Chemistry				
Mercury	ug/g	0.18	0.04	0.34
Moisture	%	77.74	56.54	78.49
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.02	0.04	0.01
Barium	ug/g	0.01	3.8	<0.01
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	<0.002	0.02	<0.002
Copper	ug/g	0.14	0.16	0.18
Iron	ug/g	1.3	3.9	11
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.13	23	0.19
Molybdenum	ug/g	<0.02	<0.05	<0.02
Nickel	ug/g	0.05	0.09	<0.01
Selenium	ug/g	0.23	0.18	0.26
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.11	52	0.11
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.10	0.31	0.08
Uranium	ug/g	0.009	<0.01	0.018
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	6.1	90	5.4
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0012	0.001	0.0024
Radium-226	Bq/g	<0.00006	<0.001	<0.00008
Thorium-230	Bq/g	<0.0001	<0.002	<0.0002

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CanNorth, Canada North Environmental Services Limited

41860 09/26/2011 WOLLASTON/COCHRANE RIVER, ANG 1-1, NP 06 *FISH BONES*
41861 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 02 *FISH FLESH*
41862 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 02 *FISH BONES*

Analyte	Units	41860	41861	41862
Inorganic Chemistry				
Mercury	ug/g	0.07	0.04	<0.01
Moisture	%	59.37	77.34	58.58
ICP				
Aluminum	ug/g	<0.5	1.6	7.0
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.03	0.18	0.10
Barium	ug/g	3.6	0.31	5.8
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	0.005	0.02
Copper	ug/g	0.20	0.18	0.20
Iron	ug/g	2.5	3.4	18
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	24	1.3	20
Molybdenum	ug/g	<0.05	<0.02	0.32
Nickel	ug/g	0.09	<0.01	0.11
Selenium	ug/g	0.19	0.40	0.33
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	47	3.4	88
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.17	0.13	0.34
Uranium	ug/g	<0.01	0.006	0.13
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	61	4.9	25
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.003
Polonium-210	Bq/g	0.002	0.0039	0.004
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.002	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41863 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 03 *FISH FLESH*
41864 09/27/2011 WOLLASTON/COCHRANE RIVER, SP6-1, LSU 03 *FISH BONES*
41865 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 01 *FISH FLESH*

Analyte	Units	41863	41864	41865
Inorganic Chemistry				
Mercury	ug/g	0.07	0.01	0.11
Moisture	%	79.75	45.99	77.74
ICP				
Aluminum	ug/g	2.4	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.15	0.11	0.05
Barium	ug/g	0.15	4.6	0.15
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.005	0.02	0.006
Copper	ug/g	0.27	0.19	0.43
Iron	ug/g	11	5.1	5.7
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.41	12	0.68
Molybdenum	ug/g	<0.02	0.23	<0.02
Nickel	ug/g	0.03	0.11	<0.01
Selenium	ug/g	0.34	0.31	0.32
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	1.2	81	1.7
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.20	0.29	0.09
Uranium	ug/g	<0.001	0.03	0.001
Vanadium	ug/g	0.02	<0.05	<0.02
Zinc	ug/g	6.4	24	5.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0013	0.002	0.0020
Radium-226	Bq/g	<0.00006	<0.002	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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41866 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 01 *FISH BONES*
41867 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 02 *FISH FLESH*
41868 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 02 *FISH BONES*

Analyte	Units	41866	41867	41868
Inorganic Chemistry				
Mercury	ug/g	0.02	0.16	0.03
Moisture	%	42.97	78.84	51.47
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.05	0.05	0.05
Barium	ug/g	4.2	0.15	4.1
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.008	0.02
Copper	ug/g	0.26	0.65	0.40
Iron	ug/g	5.5	8.0	3.8
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	17	0.61	18
Molybdenum	ug/g	0.07	<0.02	0.10
Nickel	ug/g	0.08	0.02	0.08
Selenium	ug/g	0.27	0.44	0.31
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	65	1.1	54
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.31	0.09	0.21
Uranium	ug/g	0.02	0.002	0.03
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	20	5.9	17
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.002	0.0012	0.003
Radium-226	Bq/g	<0.002	<0.00006	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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CanNorth, Canada North Environmental Services Limited

41869 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 03 *FISH FLESH*
41870 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 03 *FISH BONES*
41871 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 04 *FISH FLESH*

Analyte	Units	41869	41870	41871
Inorganic Chemistry				
Mercury	ug/g	0.06	0.02	0.06
Moisture	%	76.68	45.17	75.14
ICP				
Aluminum	ug/g	<0.5	0.6	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.20	0.12	0.08
Barium	ug/g	0.02	5.2	0.04
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004	0.03	0.003
Copper	ug/g	0.33	0.28	0.34
Iron	ug/g	2.8	5.4	2.9
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.10	23	0.09
Molybdenum	ug/g	<0.02	0.16	<0.02
Nickel	ug/g	0.04	0.13	0.03
Selenium	ug/g	0.37	0.31	0.27
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.06	77	0.07
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.24	0.08
Uranium	ug/g	0.001	0.02	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	5.6	22	3.5
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0021	0.005	0.0025
Radium-226	Bq/g	<0.00007	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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CanNorth, Canada North Environmental Services Limited

41872 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 04 *FISH BONES*
41873 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 05 *FISH FLESH*
41874 10/26/2011 FOND DU LAC RIVER, SP5-1, WSU 05 *FISH BONES*

Analyte	Units	41872	41873	41874
Inorganic Chemistry				
Mercury	ug/g	0.01	0.33	0.05
Moisture	%	49.69	78.11	42.20
ICP				
Aluminum	ug/g	<0.5	<0.5	0.8
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.07	0.04	0.04
Barium	ug/g	4.3	0.02	8.3
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.02	0.006	0.03
Copper	ug/g	0.19	0.28	0.27
Iron	ug/g	2.4	2.5	6.6
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	19	0.12	34
Molybdenum	ug/g	0.21	<0.02	0.09
Nickel	ug/g	0.09	0.03	0.12
Selenium	ug/g	0.17	0.21	0.20
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	68	0.07	86
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.21	0.07	0.34
Uranium	ug/g	0.08	<0.001	0.06
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	17	3.5	26
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.007	0.0008	0.001
Radium-226	Bq/g	<0.001	0.0001	<0.002
Thorium-230	Bq/g	<0.002	<0.0001	<0.003

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CanNorth, Canada North Environmental Services Limited

41875 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 06 *FISH FLESH*
41876 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 06 *FISH BONES*
41877 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 07 *FISH FLESH*

Analyte	Units	41875	41876	41877
Inorganic Chemistry				
Mercury	ug/g	0.06	0.02	0.09
Moisture	%	75.91	46.72	76.73
ICP				
Aluminum	ug/g	0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.19	0.18	0.22
Barium	ug/g	0.08	2.5	0.04
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	<0.002	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.003	0.01	0.002
Copper	ug/g	0.26	0.24	0.21
Iron	ug/g	2.0	3.5	2.0
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.26	8.3	0.12
Molybdenum	ug/g	0.02	0.23	<0.02
Nickel	ug/g	<0.01	0.08	0.04
Selenium	ug/g	0.31	0.32	0.41
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.51	45	0.06
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.09	0.17	0.07
Uranium	ug/g	<0.001	0.02	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	4.2	17	4.0
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0021	0.002	0.0029
Radium-226	Bq/g	<0.00006	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.002	<0.0001

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CanNorth, Canada North Environmental Services Limited

41878 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 07 *FISH BONES*
41879 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 11 *FISH FLESH*
41880 10/26/2011 FOND DU LAC RIVER, SP5-1, LSU 11 *FISH BONES*

Analyte	Units	41878	41879	41880
Inorganic Chemistry				
Mercury	ug/g	0.01	0.04	0.01
Moisture	%	50.96	76.04	52.31
ICP				
Aluminum	ug/g	0.6	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.09	0.15	0.10
Barium	ug/g	7.3	0.05	7.7
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.03	0.003	0.03
Copper	ug/g	0.19	0.38	0.20
Iron	ug/g	6.6	3.5	5.9
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	22	0.14	29
Molybdenum	ug/g	0.31	<0.02	0.33
Nickel	ug/g	0.20	<0.01	0.15
Selenium	ug/g	0.36	0.32	0.32
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	127	0.07	119
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.55	0.07	0.34
Uranium	ug/g	0.05	<0.001	0.05
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	37	5.4	33
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.005	0.0034	0.003
Radium-226	Bq/g	<0.001	<0.00006	<0.001
Thorium-230	Bq/g	<0.003	<0.0001	<0.002

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May 07, 2012

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41881 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 01 *FISH FLESH*
41882 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 01 *FISH BONES*
41883 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 02 *FISH FLESH*

Analyte	Units	41881	41882	41883
Inorganic Chemistry				
Mercury	ug/g	0.20	0.04	0.08
Moisture	%	79.62	49.82	79.17
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05	<0.02
Arsenic	ug/g	0.06	0.09	0.10
Barium	ug/g	0.07	3.9	0.02
Beryllium	ug/g	<0.002	<0.01	<0.002
Boron	ug/g	<0.2	<0.5	<0.2
Cadmium	ug/g	0.003	<0.01	<0.002
Chromium	ug/g	<0.1	<0.2	<0.1
Cobalt	ug/g	0.004	0.02	0.003
Copper	ug/g	0.27	0.24	0.39
Iron	ug/g	2.7	4.0	3.8
Lead	ug/g	<0.002	<0.01	<0.002
Manganese	ug/g	0.41	20	0.09
Molybdenum	ug/g	<0.02	0.16	<0.02
Nickel	ug/g	0.02	0.10	<0.01
Selenium	ug/g	0.38	0.34	0.34
Silver	ug/g	<0.002	<0.01	<0.002
Strontium	ug/g	0.55	61	0.09
Thallium	ug/g	<0.01	<0.02	<0.01
Tin	ug/g	<0.01	<0.02	<0.01
Titanium	ug/g	0.07	0.33	0.07
Uranium	ug/g	0.001	0.03	<0.001
Vanadium	ug/g	<0.02	<0.05	<0.02
Zinc	ug/g	3.6	18	4.9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.002	<0.001
Polonium-210	Bq/g	0.0023	0.003	0.0007
Radium-226	Bq/g	0.00009	<0.001	<0.00006
Thorium-230	Bq/g	<0.0001	<0.003	<0.0001

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May 07, 2012

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41884 10/28/2011 FOND DU LAC RIVER, SP6-2, LSU 02 *FISH BONES*
41885 10/26/2011 FOND DU LAC RIVER, SP5-1, LT 08 *FISH FLESH*
41886 10/26/2011 FOND DU LAC RIVER, SP5-1, LT 08 *FISH BONES*

Analyte	Units	41884	41885	41886
Inorganic Chemistry				
Mercury	ug/g	0.03	0.42	0.23
Moisture	%	42.51	72.27	51.42
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.02	<0.05
Arsenic	ug/g	0.11	0.04	0.11
Barium	ug/g	3.5	0.02	0.91
Beryllium	ug/g	<0.01	<0.002	<0.01
Boron	ug/g	<0.5	<0.2	<0.5
Cadmium	ug/g	<0.01	<0.002	<0.01
Chromium	ug/g	<0.2	<0.1	<0.2
Cobalt	ug/g	0.01	0.003	0.01
Copper	ug/g	0.21	0.44	0.10
Iron	ug/g	3.4	4.1	2.5
Lead	ug/g	<0.01	<0.002	<0.01
Manganese	ug/g	11	0.21	2.4
Molybdenum	ug/g	0.23	<0.02	<0.05
Nickel	ug/g	0.08	<0.01	0.08
Selenium	ug/g	0.28	0.25	0.15
Silver	ug/g	<0.01	<0.002	<0.01
Strontium	ug/g	48	0.49	58
Thallium	ug/g	<0.02	<0.01	<0.02
Tin	ug/g	<0.02	<0.01	<0.02
Titanium	ug/g	0.15	0.07	0.25
Uranium	ug/g	0.03	<0.001	<0.01
Vanadium	ug/g	<0.05	<0.02	<0.05
Zinc	ug/g	17	10	26
Radio Chemistry				
Lead-210	Bq/g	<0.002	<0.001	<0.002
Polonium-210	Bq/g	0.001	<0.0002	0.001
Radium-226	Bq/g	<0.002	<0.0001	<0.001
Thorium-230	Bq/g	<0.003	<0.0002	<0.002

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May 07, 2012

CanNorth, Canada North Environmental Services Limited

41887 10/28/2011 FOND DU LAC RIVER, SP7-2, LT 15 *FISH FLESH*
41888 10/28/2011 FOND DU LAC RIVER, SP7-2, LT 15 *FISH BONES*

Analyte	Units	41887	41888
Inorganic Chemistry			
Mercury	ug/g	0.40	0.23
Moisture	%	79.61	58.73
ICP			
Aluminum	ug/g	<0.5	<0.5
Antimony	ug/g	<0.02	<0.05
Arsenic	ug/g	0.04	0.05
Barium	ug/g	<0.01	0.85
Beryllium	ug/g	<0.002	<0.01
Boron	ug/g	<0.2	<0.5
Cadmium	ug/g	<0.002	<0.01
Chromium	ug/g	<0.1	<0.2
Cobalt	ug/g	<0.002	0.01
Copper	ug/g	0.19	0.15
Iron	ug/g	1.9	6.1
Lead	ug/g	<0.002	<0.01
Manganese	ug/g	0.05	2.3
Molybdenum	ug/g	<0.02	<0.05
Nickel	ug/g	<0.01	0.09
Selenium	ug/g	0.23	0.21
Silver	ug/g	<0.002	<0.01
Strontium	ug/g	0.03	58
Thallium	ug/g	<0.01	<0.02
Tin	ug/g	<0.01	<0.02
Titanium	ug/g	0.07	0.25
Uranium	ug/g	<0.001	<0.01
Vanadium	ug/g	<0.02	<0.05
Zinc	ug/g	3.1	24
Radio Chemistry			
Lead-210	Bq/g	<0.001	<0.002
Polonium-210	Bq/g	<0.0002	0.0006
Radium-226	Bq/g	<0.00007	<0.001
Thorium-230	Bq/g	<0.0001	<0.002

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SRC Group # 2012-1497

Apr 04, 2012

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Feb-14-2012 Client P.O.: 1489

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Apr 04, 2012

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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Feb-14-2012 Client P.O.: 1489

6444 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #01 *TISSUE*
6445 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #02 *TISSUE*
6446 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #03 *TISSUE*

Analyte	Units	6444	6445	6446
Inorganic Chemistry				
Moisture	%	74.50±0.7	73.60±0.7	75.20±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	<0.01	<0.01	0.01±0.01
Barium	ug/g	0.04±0.01	0.09±0.01	0.03±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	0.4±0.2	<0.2	0.4±0.2
Cadmium	ug/g	0.005±0.002	0.008±0.002	0.002±0.002
Chromium	ug/g	0.2±0.1	<0.1	<0.1
Cobalt	ug/g	0.003±0.002	0.003±0.002	0.007±0.002
Copper	ug/g	3.1±0.2	3.2±0.2	2.5±0.1
Iron	ug/g	37±4	35±4	26±3
Lead	ug/g	0.013±0.005	0.002±0.002	<0.002
Manganese	ug/g	0.35±0.08	0.29±0.07	0.25±0.07
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.15±0.04	0.17±0.04	0.17±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.04±0.03	0.03±0.02	0.03±0.02
Thallium	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.07±0.02	0.07±0.02

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Apr 04, 2012

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6444 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #01 *TISSUE*
6445 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #02 *TISSUE*
6446 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #03 *TISSUE*

Analyte	Units	6444	6445	6446
ICP				
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	33±2	30±1	30±1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.016±0.005	0.013±0.004	0.011±0.004
Radium-226	Bq/g	<0.00006	<0.00007	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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6447 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #04 *TISSUE*
6448 01/28/2012 WOLLASTON LAKE - CARIBOU MEAT #05 *TISSUE*
6449 02/03/2012 BLACK LAKE - CARIBOU MEAT #01 *TISSUE*

Analyte	Units	6447	6448	6449
Inorganic Chemistry				
Moisture	%	74.14±0.7	75.20±0.7	74.06±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.02±0.01	0.02±0.01	0.02±0.01
Barium	ug/g	0.04±0.01	0.09±0.01	0.20±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	0.3±0.2	0.4±0.2	0.7±0.2
Cadmium	ug/g	0.004±0.002	0.002±0.002	0.002±0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.005±0.002	0.004±0.002	0.005±0.002
Copper	ug/g	3.9±0.2	3.1±0.2	4.3±0.2
Iron	ug/g	45±4	29±3	43±4
Lead	ug/g	0.046±0.009	0.051±0.009	0.013±0.005
Manganese	ug/g	0.53±0.09	0.33±0.08	0.45±0.09
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	0.01±0.01
Selenium	ug/g	0.19±0.04	0.13±0.03	0.15±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.02±0.02	0.03±0.02	0.03±0.02
Thallium	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.07±0.02	0.08±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	20±1	29±1	17±1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.015±0.005	0.011±0.004	0.011±0.004
Radium-226	Bq/g	<0.00006	<0.00005	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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Apr 04, 2012

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6450 02/03/2012 BLACK LAKE - CARIBOU MEAT #02 *TISSUE*
6451 02/03/2012 BLACK LAKE - CARIBOU MEAT #03 *TISSUE*
6452 02/03/2012 BLACK LAKE - CARIBOU MEAT #04 *TISSUE*

Analyte	Units	6450	6451	6452
Inorganic Chemistry				
Moisture	%	74.11±0.7	74.21±0.7	73.58±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.01±0.01	0.02±0.01	0.02±0.01
Barium	ug/g	0.03±0.01	0.04±0.01	0.03±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	0.2±0.2	0.6±0.2	<0.2
Cadmium	ug/g	0.004±0.002	0.002±0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.004±0.002	0.003±0.002	0.003±0.002
Copper	ug/g	2.6±0.1	3.0±0.1	3.0±0.1
Iron	ug/g	29±3	40±4	38±4
Lead	ug/g	<0.002	0.008±0.004	<0.002
Manganese	ug/g	0.29±0.07	0.35±0.08	0.38±0.08
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	0.02±0.01
Selenium	ug/g	0.20±0.04	0.21±0.04	0.19±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.03±0.02	0.02±0.02	0.02±0.02
Thallium	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.07±0.02	0.07±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	31±2	21±1	16±1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.0095±0.003	0.0083±0.003	0.010±0.003
Radium-226	Bq/g	<0.00006	<0.00006	<0.00006
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

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Apr 04, 2012

CanNorth, Canada North Environmental Services Limited

6453 02/03/2012 BLACK LAKE - CARIBOU MEAT #05 *TISSUE*
6454 02/13/2012 FOND DU LAC - CARIBOU MEAT # 01 *TISSUE*
6455 02/13/2012 FOND DU LAC - CARIBOU MEAT # 02 *TISSUE*

Analyte	Units	6453	6454	6455
Inorganic Chemistry				
Moisture	%	72.53±0.7	71.24±0.6	76.19±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.02±0.01	<0.01	<0.01
Barium	ug/g	0.25±0.01	0.08±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	0.9±0.2	0.4±0.2	0.5±0.2
Cadmium	ug/g	<0.002	0.004±0.002	0.002±0.002
Chromium	ug/g	<0.1	0.3±0.2	<0.1
Cobalt	ug/g	0.003±0.002	0.004±0.002	0.006±0.002
Copper	ug/g	3.3±0.2	3.9±0.2	2.3±0.1
Iron	ug/g	45±4	48±4	31±4
Lead	ug/g	0.005±0.003	0.008±0.004	<0.002
Manganese	ug/g	0.42±0.09	0.39±0.08	0.26±0.07
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	0.02±0.01	0.08±0.01	<0.01
Selenium	ug/g	0.20±0.04	0.15±0.04	0.15±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.03±0.02	0.07±0.04	0.05±0.03
Thallium	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.08±0.02
Uranium	ug/g	0.001±0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	29±1	22±1	56±2
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.011±0.004	0.0042±0.002	0.0084±0.003
Radium-226	Bq/g	<0.00006	<0.00005	0.0002±0.0001
Thorium-230	Bq/g	<0.0001	<0.0001	0.0003±0.0002

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Apr 04, 2012

CanNorth, Canada North Environmental Services Limited

6456 02/13/2012 FOND DU LAC - CARIBOU MEAT # 03 *TISSUE*
6457 02/13/2012 FOND DU LAC - CARIBOU MEAT # 04 *TISSUE*
6458 02/13/2012 FOND DU LAC - CARIBOU MEAT # 05 *TISSUE*

Analyte	Units	6456	6457	6458
Inorganic Chemistry				
Moisture	%	74.05±0.7	73.91±0.7	73.77±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	<0.01	0.02±0.01	0.02±0.01
Barium	ug/g	0.03±0.01	0.04±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	0.3±0.2	0.2±0.2	<0.2
Cadmium	ug/g	0.003±0.002	0.002±0.002	<0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.006±0.002	0.003±0.002	0.003±0.002
Copper	ug/g	2.2±0.1	4.1±0.2	3.1±0.2
Iron	ug/g	29±3	48±4	32±4
Lead	ug/g	<0.002	<0.002	<0.002
Manganese	ug/g	0.25±0.07	0.43±0.09	0.32±0.07
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01	<0.01
Selenium	ug/g	0.15±0.04	0.18±0.04	0.15±0.04
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.06±0.03	0.05±0.03	0.03±0.02
Thallium	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.07±0.02	0.08±0.02	0.09±0.03
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	59±2	16±1	49±2
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.0098±0.003	0.0096±0.003	0.0021±0.001
Radium-226	Bq/g	0.0001±0.0001	<0.00004	0.00008±0.00008
Thorium-230	Bq/g	<0.0002	<0.00008	<0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Please note that radionuclide detection limits for biological tissue samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are

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converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

Results are reported on a "raw weight" basis.

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Apr 04, 2012

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7

This report was generated for samples included in SRC Group # 2012-1497

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Antimony	ug/g	0.00500	0.00130
Arsenic	ug/g	0.0630	0.0495
Cadmium	ug/g	0.500	0.423
Cobalt	ug/g	0.232	0.215
Copper	ug/g	152	150
Iron	ug/g	164	155
Lead	ug/g	0.112	0.110
Lead-210	Bq/L	22.0	20.4
Lead-210	Bq	0.644	0.622
Manganese	ug/g	9.90	9.49
Molybdenum	ug/g	3.50	3.28
Polonium-210	Bq/L	22.0	22.1
Polonium-210	Bq	0.644	0.704
Radium-226	Bq/L	20.1	20.1
Radium-226	Bq	0.043	0.042
Selenium	ug/g	0.785	0.710
Silver	ug/g	0.0395	0.0351
Strontium	ug/g	0.136	0.125
Thorium-230	Bq/L	24.0	25.1
Thorium-232	Bq	0.216	0.210
Vanadium	ug/g	0.109	0.104
Zinc	ug/g	127	120

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This report was generated for samples included in SRC Group # 2012-1497 Apr 04, 2012

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result	
Silver	ug/g	0.012	<0.005	
Silver	ug/g	<0.005	<0.005	
Aluminum	ug/g	<0.5	<0.5	
Aluminum	ug/g	<0.5	<0.5	
Arsenic	ug/g	<0.02	<0.02	
Arsenic	ug/g	0.07	0.02	
Boron	ug/g	<0.5	1.1	
Boron	ug/g	<0.5	<0.5	
Barium	ug/g	0.09	0.03	
Barium	ug/g	0.04	0.03	
Beryllium	ug/g	<0.005	<0.005	
Beryllium	ug/g	<0.005	<0.005	
Cadmium	ug/g	<0.005	<0.005	
Cadmium	ug/g	<0.005	<0.005	
Cobalt	ug/g	<0.005	<0.005	
Cobalt	ug/g	<0.005	<0.005	
Chromium	ug/g	<0.2	<0.2	
Chromium	ug/g	<0.2	<0.2	
Copper	ug/g	3.1	2.9	
Copper	ug/g	4.1	3.8	
Iron	ug/g	29	24	
Iron	ug/g	48	44	
Manganese	ug/g	0.33	0.34	
Manganese	ug/g	0.43	0.41	
Molybdenum	ug/g	<0.05	<0.05	
Molybdenum	ug/g	<0.05	<0.05	
Nickel	ug/g	<0.02	<0.02	
Nickel	ug/g	<0.02	<0.02	
Lead	ug/g	337	0.051	*(1)
Lead	ug/g	<0.005	<0.005	
Lead-210	Bq/g	<0.001	<0.001	
Lead-210	Bq/g	<0.001	<0.001	
Polonium-210	Bq/g	0.0090	0.0077	
Polonium-210	Bq/g	0.0022	0.0020	
Radium-226	Bq/g	<0.00006	<0.00006	
Radium-226	Bq/g	0.021	0.016	
Antimony	ug/g	<0.05	<0.05	
Antimony	ug/g	2.4	<0.05	*(2)
Selenium	ug/g	0.13	0.13	

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This report was generated for samples included in SRC Group # 2012-1497 Apr 04, 2012

Duplicate Analysis	Units	First Result	Second Result
Selenium	ug/g	0.18	0.18
Strontium	ug/g	<0.05	<0.05
Strontium	ug/g	0.07	<0.05
Thorium-230	Bq/g	<0.0001	<0.0001
Thorium-230	Bq/g	<0.01	<0.01
Titanium	ug/g	0.08	0.07
Titanium	ug/g	0.08	0.07
Thallium	ug/g	<0.02	<0.02
Thallium	ug/g	<0.02	<0.02
Uranium	ug/g	<0.002	<0.002
Uranium	ug/g	<0.002	<0.002
Vanadium	ug/g	<0.05	<0.05
Vanadium	ug/g	<0.05	<0.05
Zinc	ug/g	29	30
Zinc	ug/g	16	17

*(1)(2) The duplicate results for Lead and Antimony were outside the laboratory's specified limits. The data was reviewed and the sample was reanalyzed. Additional quality control measures in the same batch were within specified limits.

Overall, there were no other indications of problems with the analysis and the results were considered acceptable.

Roxane Ortmann - Quality Assurance Supervisor

SRC Group # 2011-11081

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Jan 05, 2012

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CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1512

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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    * US EPA
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* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Jan 05, 2012

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CanNorth
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4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-03-2011 Client P.O.: 1512

40237 09/15/2011 WOLLASTON LAKE BLUEBERRIES #01 *VEGETATION*
40238 09/12/2011 BLACK LAKE BLUEBERRIES #01 *VEGETATION*
40239 09/12/2011 STONY RAPIDS BLUEBERRIES #01 *VEGETATION*

Analyte	Units	40237	40238	40239
Inorganic Chemistry				
Moisture	%	85.31±0.7	86.24±0.7	85.84±0.7
ICP				
Aluminum	ug/g	6.1±3	6.0±3	21±7
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	16±5	12±0.2	15±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	7±1	6±1	12±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.01±0.01	0.05±0.01	0.01±0.01
Copper	ug/g	2.9±0.3	3.3±0.4	2.9±0.3
Iron	ug/g	6.8±2	8.4±2	16±3
Lead	ug/g	0.04±0.02	0.07±0.03	0.01±0.01
Manganese	ug/g	270±50	160±40	140±40
Molybdenum	ug/g	<0.1	0.2±0.1	0.1±0.1
Nickel	ug/g	0.66±0.05	0.66±0.05	0.75±0.05
Selenium	ug/g	<0.05	<0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	3.4±0.4	2.1±0.3	2.6±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05

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Jan 05, 2012

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40237 09/15/2011 WOLLASTON LAKE BLUEBERRIES #01 *VEGETATION*
40238 09/12/2011 BLACK LAKE BLUEBERRIES #01 *VEGETATION*
40239 09/12/2011 STONY RAPIDS BLUEBERRIES #01 *VEGETATION*

Analyte	Units	40237	40238	40239
ICP				
Titanium	ug/g	<0.05	<0.05	0.26±0.09
Uranium	ug/g	<0.01	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	5.7±2	4.8±1	5.8±2
Radio Chemistry				
Lead-210	Bq/g	0.005±0.004	0.009±0.004	<0.004
Polonium-210	Bq/g	0.002±0.001	0.001±0.001	0.002±0.001
Radium-226	Bq/g	<0.001	0.002±0.002	0.003±0.002
Thorium-230	Bq/g	<0.002	<0.002	<0.002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.
Please note that radionuclide detection limits for vegetation can vary.
The detection limits depend on the amount of sample available and the
exact amounts taken for each analysis. The detection limits reported are
the lowest attainable for this group.

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Jan 05, 2012

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40240 09/14/2011 FOND DU LAC BLUEBERRIES #01 *VEGETATION*

Analyte	Units	40240
Inorganic Chemistry		
Moisture	%	87.10±0.7
ICP		
Aluminum	ug/g	4.4±2
Antimony	ug/g	<0.1
Arsenic	ug/g	<0.05
Barium	ug/g	12±0.2
Beryllium	ug/g	<0.01
Boron	ug/g	8±1
Cadmium	ug/g	<0.01
Chromium	ug/g	<0.5
Cobalt	ug/g	0.01±0.01
Copper	ug/g	2.7±0.3
Iron	ug/g	10±2
Lead	ug/g	<0.01
Manganese	ug/g	140±40
Molybdenum	ug/g	0.4±0.2
Nickel	ug/g	0.97±0.06
Selenium	ug/g	<0.05
Silver	ug/g	<0.01
Strontium	ug/g	1.3±0.2
Thallium	ug/g	<0.05
Tin	ug/g	<0.05
Titanium	ug/g	<0.05
Uranium	ug/g	<0.01
Vanadium	ug/g	<0.1
Zinc	ug/g	5.6±2
Radio Chemistry		
Lead-210	Bq/g	<0.004
Polonium-210	Bq/g	0.001±0.001
Radium-226	Bq/g	0.002±0.002
Thorium-230	Bq/g	<0.002

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Please note that radionuclide detection limits for vegetation can vary.
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exact amounts taken for each analysis. The detection limits reported are the lowest attainable for this group.

SRC Group # 2011-11035

Feb 09, 2012

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(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-02-2011 Client P.O.: 1507

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

---

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  * US EPA
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Feb 09, 2012

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40141 09/06/2011 URANIUM CITY-MOOSE MEAT-MELVILLE LAKE *TISSUE*
40142 09/06/2011 URANIUM CITY-MOOSE LIVER-MELVILLE LAKE *TISSUE*
40143 09/18/2011 URANIUM CITY-MOOSE HEART-HAB LAKE *TISSUE*

Analyte	Units	40141	40142	40143
Inorganic Chemistry				
Moisture	%	72.74±0.7	68.52±0.6	75.36±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	0.01±0.01	<0.01	<0.01
Barium	ug/g	<0.01	0.95±0.3	0.05±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	0.002±0.002	0.26±0.04	0.006±0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.003±0.002	0.17±0.005	0.061±0.004
Copper	ug/g	3.8±0.2	20.7±2	3.9±0.2
Iron	ug/g	42±4	90±80	50±50
Lead	ug/g	<0.002	0.013±0.01	<0.002
Manganese	ug/g	0.33±0.08	3.3±2	0.37±0.08
Molybdenum	ug/g	<0.02	1.2±0.1	0.03±0.02
Nickel	ug/g	0.02±0.01	<0.01	<0.01
Selenium	ug/g	0.18±0.04	3.2±0.2	0.24±0.05
Silver	ug/g	<0.002	0.007±0.004	<0.002
Strontium	ug/g	0.04±0.03	0.07±0.04	0.05±0.03
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.10±0.03	0.09±0.03	0.07±0.02
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	31±2	21±1	21±1
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.0023±0.001	0.0035±0.001	0.0007±0.0004
Radium-226	Bq/g	<0.00006	<0.0001	<0.00007
Thorium-230	Bq/g	<0.0001	<0.0003	<0.0001

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Please note that radionuclide detection limits for biological tissue samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally,

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some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 09, 2012

CanNorth, Canada North Environmental Services Limited

40144 09/18/2011 URANIUM CITY-MOOSE LIVER-HAB LAKE *TISSUE*
40145 10/06/2011 CAMSELL PORTAGE-MOOSE MEAT #01 (CALF) *TISSUE*
40146 10/06/2011 CAMSELL PORTAGE-MOOSE MEAT #02 (COW) *TISSUE*

Analyte	Units	40144	40145	40146
Inorganic Chemistry				
Moisture	%	62.57±0.6	75.01±0.7	73.92±0.7
ICP				
Aluminum	ug/g	<0.5	1.5±1	3.0±2
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	<0.01	<0.01	<0.01
Barium	ug/g	0.09±0.01	0.04±0.01	0.15±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	0.3±0.2	<0.2
Cadmium	ug/g	0.88±0.09	<0.002	0.006±0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.073±0.004	0.014±0.002	0.011±0.002
Copper	ug/g	49.5±3	2.0±0.1	1.2±0.1
Iron	ug/g	110±100	21±3	25±3
Lead	ug/g	<0.002	0.018±0.006	0.019±0.006
Manganese	ug/g	1.5±1	0.20±0.06	0.18±0.06
Molybdenum	ug/g	0.76±0.1	<0.02	<0.02
Nickel	ug/g	<0.01	0.02±0.01	0.02±0.01
Selenium	ug/g	0.68±0.07	0.20±0.04	0.06±0.02
Silver	ug/g	0.016±0.005	<0.002	<0.002
Strontium	ug/g	0.05±0.03	0.10±0.04	0.06±0.03
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.09±0.03	0.25±0.05
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	14±1	24±1	38±2
Radio Chemistry				
Lead-210	Bq/g	0.002±0.001	<0.001	<0.001
Polonium-210	Bq/g	0.0017±0.0008	0.0019±0.0009	0.0004±0.0002
Radium-226	Bq/g	<0.00007	<0.00008	<0.00007
Thorium-230	Bq/g	<0.0001	<0.0002	<0.0001

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Feb 09, 2012

CanNorth, Canada North Environmental Services Limited

40147 10/06/2011 CAMSELL PORTAGE-MOOSE MEAT #03 (BULL) *TISSUE*

Analyte	Units	40147
Inorganic Chemistry		
Moisture	%	75.02±0.7
ICP		
Aluminum	ug/g	<0.5
Antimony	ug/g	<0.02
Arsenic	ug/g	<0.01
Barium	ug/g	0.03±0.01
Beryllium	ug/g	<0.002
Boron	ug/g	<0.2
Cadmium	ug/g	0.002±0.002
Chromium	ug/g	<0.1
Cobalt	ug/g	0.022±0.002
Copper	ug/g	1.8±0.1
Iron	ug/g	25±3
Lead	ug/g	<0.002
Manganese	ug/g	0.21±0.06
Molybdenum	ug/g	<0.02
Nickel	ug/g	<0.01
Selenium	ug/g	0.10±0.03
Silver	ug/g	<0.002
Strontium	ug/g	0.03±0.02
Thallium	ug/g	<0.01
Tin	ug/g	<0.01
Titanium	ug/g	0.09±0.03
Uranium	ug/g	<0.001
Vanadium	ug/g	<0.02
Zinc	ug/g	47±2
Radio Chemistry		
Lead-210	Bq/g	<0.001
Polonium-210	Bq/g	0.0003±0.0002
Radium-226	Bq/g	0.0002±0.0002
Thorium-230	Bq/g	<0.0001

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SRC Group # 2011-12867

Feb 24, 2012

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CanNorth
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Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-22-2011 Client P.O.: 1507

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

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Feb 24, 2012

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-22-2011 Client P.O.: 1507

47289 09/28/2011 URANIUM CITY - MOOSE MEAT - ACE LAKE *TISSUE*
47290 09/18/2011 URANIUM CITY - MOOSE MEAT - HAB LAKE *TISSUE*
47291 11/01/2011 URANIUM CITY - MOOSE MEAT - MACKINTOSH BAY *TISSUE*

Analyte	Units	47289	47290	47291
Inorganic Chemistry				
Moisture	%	74.50±0.7	69.21±0.6	72.36±0.7
ICP				
Aluminum	ug/g	<0.5	<0.5	<0.5
Antimony	ug/g	<0.05	<0.05	<0.05
Arsenic	ug/g	<0.02	<0.02	<0.02
Barium	ug/g	0.05±0.02	0.09±0.02	0.02±0.02
Beryllium	ug/g	<0.005	<0.005	<0.005
Boron	ug/g	<0.5	<0.5	<0.5
Cadmium	ug/g	<0.005	<0.005	<0.005
Chromium	ug/g	<0.2	<0.2	<0.2
Cobalt	ug/g	0.010±0.005	0.006±0.005	0.014±0.005
Copper	ug/g	1.4±0.1	1.5±0.2	1.8±0.2
Iron	ug/g	30±10	33±10	25±10
Lead	ug/g	<0.005	<0.005	<0.005
Manganese	ug/g	0.16±0.09	0.18±0.09	0.16±0.09
Molybdenum	ug/g	<0.05	<0.05	<0.05
Nickel	ug/g	<0.02	0.06±0.02	0.02±0.02
Selenium	ug/g	0.23±0.06	0.12±0.05	0.16±0.05
Silver	ug/g	<0.005	<0.005	<0.005
Strontium	ug/g	<0.05	<0.05	<0.05
Thallium	ug/g	<0.02	<0.02	<0.02
Tin	ug/g	<0.02	<0.02	<0.02

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Feb 24, 2012

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47289 09/28/2011 URANIUM CITY - MOOSE MEAT - ACE LAKE *TISSUE*
47290 09/18/2011 URANIUM CITY - MOOSE MEAT - HAB LAKE *TISSUE*
47291 11/01/2011 URANIUM CITY - MOOSE MEAT - MACKINTOSH BAY *TISSUE*

Analyte	Units	47289	47290	47291
ICP				
Titanium	ug/g	0.08±0.03	0.08±0.03	0.08±0.03
Uranium	ug/g	<0.002	0.071±0.01	<0.002
Vanadium	ug/g	<0.05	<0.05	<0.05
Zinc	ug/g	52±9	36±8	49±9
Radio Chemistry				
Lead-210	Bq/g	<0.001	<0.001	<0.001
Polonium-210	Bq/g	0.0006±0.0003	0.0007±0.0004	0.0005±0.0003
Radium-226	Bq/g	<0.00008	0.0005±0.0003	<0.0001
Thorium-230	Bq/g	<0.0002	0.0006±0.0003	<0.0002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a "raw weight" basis.

SRC Group # 2011-11032

Feb 02, 2012

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422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
4-130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Nov-02-2011 Client P.O.: 1507

This is a final report.

Organics results have been authorized by Pat Moser, Supervisor

ICP results have been authorized by Keith Gipman, Supervisor

Inorganics and Radiochemistry results have been authorized by Jeff Zimmer, Supervisor

SLOWPOKE-2 results have been authorized by Dave Chorney

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as

  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Feb 02, 2012

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40155 09/30/2011 URANIUM CITY-CRANBERRIES #01 *VEGETATION*
40156 09/30/2011 URANIUM CITY-CRANBERRIES #02 *VEGETATION*
40157 10/01/2011 URANIUM CITY-CRANBERRIES #03 *VEGETATION*

Analyte	Units	40155	40156	40157
Inorganic Chemistry				
Moisture	%	88.39±0.7	87.69±0.7	87.22±0.7
ICP				
Aluminum	ug/g	20±7	29±9	15±6
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	13±0.2	9.1±0.2	11±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	10±1	9±1	8±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.02±0.01	0.14±0.01	0.02±0.01
Copper	ug/g	5.9±0.5	3.6±0.4	2.6±0.3
Iron	ug/g	16±3	20±3	9.5±2
Lead	ug/g	0.01±0.01	0.01±0.01	0.01±0.01
Manganese	ug/g	150±40	110±30	300±50
Molybdenum	ug/g	<0.1	<0.1	<0.1
Nickel	ug/g	1.1±0.07	0.80±0.06	0.28±0.05
Selenium	ug/g	<0.05	<0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	3.4±0.4	2.5±0.3	2.5±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	0.07±0.05	0.47±0.1	0.06±0.05
Uranium	ug/g	0.01±0.01	0.02±0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	8.9±2	7.3±2	5.7±2
Radio Chemistry				
Lead-210	Bq/g	0.005±0.004	0.005±0.004	0.016±0.006
Polonium-210	Bq/g	0.003±0.01	0.003±0.002	0.013±0.006
Radium-226	Bq/g	0.002±0.002	0.007±0.004	<0.0009
Thorium-230	Bq/g	<0.002	<0.002	<0.002

Symbol of "<" means "less than". This indicates that it was not detected at level stated above.

Results are reported on a dry basis.
Please note that radionuclide detection limits for vegetation can vary.
The detection limits depend on the amount of sample available and the

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exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed vegetation and the results are converted back to a dry weight basis. The percent ash obtained from a given vegetation sample is dependent on many variables. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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40158 10/01/2011 URANIUM CITY-CRANBERRIES #04 *VEGETATION*
40159 10/02/2011 URANIUM CITY-CRANBERRIES #05 *VEGETATION*
40160 09/05/2011 BEAVERLODGE PROPERTIES-CRANBERRIES #01 *VEGETATION*

Analyte	Units	40158	40159	40160
Inorganic Chemistry				
Moisture	%	86.90±0.7	87.44±0.7	85.04±0.7
ICP				
Aluminum	ug/g	19±7	27±9	11±4
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	9.4±0.2	13±0.2	13±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	14±1	10±1	11±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.02±0.01	0.02±0.01	0.04±0.01
Copper	ug/g	2.6±0.3	3.2±0.4	2.6±0.3
Iron	ug/g	13±2	14±2	9.2±2
Lead	ug/g	0.01±0.01	0.02±0.01	0.02±0.01
Manganese	ug/g	210±40	220±40	120±30
Molybdenum	ug/g	<0.1	<0.1	0.1±0.1
Nickel	ug/g	0.50±0.05	0.42±0.05	0.41±0.05
Selenium	ug/g	<0.05	<0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	2.4±0.3	1.8±0.3	1.8±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	0.18±0.08	0.14±0.06	<0.05
Uranium	ug/g	0.01±0.01	<0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	5.2±2	6.8±2	5.5±2
Radio Chemistry				
Lead-210	Bq/g	0.010±0.004	0.016±0.006	<0.004
Polonium-210	Bq/g	0.002±0.001	0.005±0.002	0.004±0.002
Radium-226	Bq/g	<0.0009	<0.0009	0.017±0.008
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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Results are reported on a dry basis.
Please note that radionuclide detection limits for vegetation can vary.
The detection limits depend on the amount of sample available and the

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exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed vegetation and the results are converted back to a dry weight basis. The percent ash obtained from a given vegetation sample is dependent on many variables. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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Feb 02, 2012

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40164 09/06/2011 BEAVERLODGE PROPERTIES-CRANBERRIES #05 *VEGETATION*
40165 10/06/2011 CAMSELL PORTAGE-CRANBERRIES #01 *VEGETATION*
40166 10/06/2011 CAMSELL PORTAGE-CRANBERRIES #02 *VEGETATION*

Analyte	Units	40164	40165	40166
Inorganic Chemistry				
Moisture	%	88.54±0.7	87.53±0.7	87.36±0.7
ICP				
Aluminum	ug/g	21±7	17±6	17±6
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	12±0.2	14±0.2	13±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	8±1	9±1	8±1
Cadmium	ug/g	<0.01	<0.01	<0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.02±0.01	0.01±0.01	0.01±0.01
Copper	ug/g	3.7±0.4	4.5±0.4	4.2±0.4
Iron	ug/g	9.9±2	9.7±2	9.7±2
Lead	ug/g	0.01±0.01	<0.01	<0.01
Manganese	ug/g	260±50	110±30	120±30
Molybdenum	ug/g	0.1±0.1	0.1±0.1	0.1±0.1
Nickel	ug/g	0.51±0.05	0.46±0.05	0.46±0.05
Selenium	ug/g	<0.05	<0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	1.9±0.3	2.3±0.3	2.0±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	<0.05	0.06±0.05	0.06±0.05
Uranium	ug/g	<0.01	0.01±0.01	<0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	6.8±2	6.6±2	6.4±2
Radio Chemistry				
Lead-210	Bq/g	0.007±0.004	0.007±0.004	0.006±0.004
Polonium-210	Bq/g	0.004±0.002	0.003±0.002	0.002±0.001
Radium-226	Bq/g	0.005±0.003	0.004±0.003	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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Results are reported on a dry basis.
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exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed vegetation and the results are converted back to a dry weight basis. The percent ash obtained from a given vegetation sample is dependent on many variables. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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40167 10/06/2011 CAMSELL PORTAGE-CRANBERRIES #03 *VEGETATION*
40168 10/06/2011 CAMSELL PORTAGE-CRANBERRIES #04 *VEGETATION*
40169 10/06/2011 CAMSELL PORTAGE-CRANBERRIES #05 *VEGETATION*

Analyte	Units	40167	40168	40169
Inorganic Chemistry				
Moisture	%	87.13±0.7	86.87±0.7	86.78±0.7
ICP				
Aluminum	ug/g	19±7	19±7	16±6
Antimony	ug/g	<0.1	<0.1	<0.1
Arsenic	ug/g	<0.05	<0.05	<0.05
Barium	ug/g	14±0.2	15±0.2	9.1±0.2
Beryllium	ug/g	<0.01	<0.01	<0.01
Boron	ug/g	8±1	10±1	9±1
Cadmium	ug/g	<0.01	<0.01	0.01±0.01
Chromium	ug/g	<0.5	<0.5	<0.5
Cobalt	ug/g	0.01±0.01	0.01±0.01	0.01±0.01
Copper	ug/g	4.8±0.4	4.9±0.4	3.6±0.4
Iron	ug/g	10±2	10±2	11±2
Lead	ug/g	<0.01	0.01±0.01	0.02±0.01
Manganese	ug/g	100±30	100±30	80±30
Molybdenum	ug/g	0.2±0.1	0.2±0.1	<0.1
Nickel	ug/g	0.49±0.05	0.65±0.05	0.37±0.05
Selenium	ug/g	<0.05	<0.05	<0.05
Silver	ug/g	<0.01	<0.01	<0.01
Strontium	ug/g	2.1±0.3	2.5±0.3	1.8±0.3
Thallium	ug/g	<0.05	<0.05	<0.05
Tin	ug/g	<0.05	<0.05	<0.05
Titanium	ug/g	<0.05	0.08±0.05	0.17±0.07
Uranium	ug/g	0.01±0.01	<0.01	0.02±0.01
Vanadium	ug/g	<0.1	<0.1	<0.1
Zinc	ug/g	6.5±2	6.7±2	5.3±2
Radio Chemistry				
Lead-210	Bq/g	0.020±0.007	0.013±0.005	0.018±0.006
Polonium-210	Bq/g	0.001±0.0009	0.002±0.001	0.003±0.002
Radium-226	Bq/g	0.006±0.004	0.004±0.003	0.002±0.002
Thorium-230	Bq/g	<0.002	<0.002	<0.002

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The detection limits depend on the amount of sample available and the

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exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed vegetation and the results are converted back to a dry weight basis. The percent ash obtained from a given vegetation sample is dependent on many variables. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

SRC Group: 2010-11735

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CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-17-2010 Client P.O.: PROJ#: 1448

Analysis has been reviewed by:

Jeff Zimmer
Inorganics Supervisor

Keith Gipman
ICP Supervisor

Dave Chorney
Radiochemistry and Slowpoke II Supervisor

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as
    * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
    * Environment Canada
    * US EPA
    * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

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Feb 08, 2011

CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-17-2010 Client P.O.: PROJ#: 1448

47742	MACKINTOSH BAY - MOOSE MEAT (M7-MAP 1) SEPT 2010 *FLESH*
47743	BEAVERLODGE LAKE - MOOSE MEAT (D7-MAP 2) SEPT 2009 *FLESH*
47744	ACE LAKE - MOOSE MEAT (H4-MAP 2) SEPT 2009 *FLESH*

Analyte	Units	47742	47743	47744
ICP				
Aluminum	ug/g	2.5±2	<0.5	<0.5
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	<0.01	<0.01	<0.01
Barium	ug/g	0.03±0.01	0.09±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	0.4±0.2	0.4±0.2
Cadmium	ug/g	0.003±0.002	0.003±0.002	0.003±0.002
Chromium	ug/g	<0.1	<0.1	<0.1
Cobalt	ug/g	0.013±0.002	0.016±0.002	0.029±0.003
Copper	ug/g	1.3±0.1	1.6±0.1	2.0±0.1
Iron	ug/g	30±10	23±10	29±10
Lead	ug/g	<0.002	<0.002	0.003±0.002
Manganese	ug/g	0.16±0.05	0.22±0.06	0.19±0.06
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	0.01±0.01	<0.01	<0.01
Selenium	ug/g	0.11±0.03	0.12±0.03	0.11±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	<0.02	0.12±0.05	0.04±0.03
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.14±0.03	0.14±0.03	0.12±0.03
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	50±6	60±7	34±5
Radio Chemistry				
Moisture	%	74.42	72.21	75.24
Lead-210	Bq/g	0.002±0.001	<0.001	<0.001
Polonium-210	Bq/g	<0.0002	0.0002±0.0002	<0.0002
Radium-226	Bq/g	<0.00006	<0.00006	<0.00007
Thorium-230	Bq/g	<0.0001	<0.0001	<0.0001

"<": not detected at level stated above.

Results are reported on a "raw weight" basis.

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47742 (Cont.)	MACKINTOSH BAY - MOOSE MEAT (M7-MAP 1) SEPT 2010 *FLESH*
47743	BEAVERLODGE LAKE - MOOSE MEAT (D7-MAP 2) SEPT 2009 *FLESH*
47744	ACE LAKE - MOOSE MEAT (H4-MAP 2) SEPT 2009 *FLESH*

Analyte	Units	47742	47743	47744

Please note that radionuclide detection limits for biological tissue and vegetation samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

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47745 ORBIT BAY - MOOSE MEAT (G6-MAP 1) SEPT 2010 *FLESH*

Analyte	Units	47745
ICP		
Aluminum	ug/g	<0.5
Antimony	ug/g	<0.02
Arsenic	ug/g	<0.01
Barium	ug/g	0.02±0.01
Beryllium	ug/g	<0.002
Boron	ug/g	<0.2
Cadmium	ug/g	0.004±0.002
Chromium	ug/g	<0.1
Cobalt	ug/g	0.017±0.002
Copper	ug/g	1.7±0.1
Iron	ug/g	42±10
Lead	ug/g	<0.002
Manganese	ug/g	0.14±0.05
Molybdenum	ug/g	<0.02
Nickel	ug/g	<0.01
Selenium	ug/g	0.09±0.03
Silver	ug/g	<0.002
Strontium	ug/g	0.03±0.02
Thallium	ug/g	<0.01
Tin	ug/g	<0.01
Titanium	ug/g	0.13±0.03
Uranium	ug/g	0.001±0.001
Vanadium	ug/g	<0.02
Zinc	ug/g	49±6
Radio Chemistry		
Moisture	%	73.84
Lead-210	Bq/g	<0.001
Polonium-210	Bq/g	0.0003±0.0002
Radium-226	Bq/g	<0.00007
Thorium-230	Bq/g	<0.0001

"<": not detected at level stated above.

Please note that radionuclide detection limits for biological tissue and vegetation samples can vary. The detection limits depend on the amount of sample available and the exact amounts taken for each analysis. Additionally, some radionuclides are analyzed using ashed tissue and the results are converted back to a raw weight basis. The percent ash obtained from a given tissue sample is dependent on many variables including size and species. The percent ash factor will affect the detection limit. The detection limits reported are the lowest attainable for this group.

SRC Group: 2010-11734

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Fax: (306) 933-7922

CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-17-2010 Client P.O.: 1420

Analysis has been reviewed by:

Jeff Zimmer
Inorganics Supervisor

Keith Gipman
ICP Supervisor

Dave Chorney
Radiochemistry and Slowpoke II Supervisor

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

* Routine methods follow recognized procedures from sources such as
  * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
  * Environment Canada
  * US EPA
  * CANMET

* The results reported relate only to the test samples as provided by the client.

* Samples will be kept for 30 days after the final report is sent. Please contact the lab if you have any special requirements.

* Additional information is available upon request.

SRC Group # 2010-11734

SRC ANALYTICAL

Jan 20, 2011

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808

CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Dec-17-2010 Client P.O.: 1420

47465	WOLLASTON LAKE MOOSE MEAT DECEMBER 2010 *TISSUE*
47466	URANIUM CITY MOOSE MEAT DECEMBER 2010 *TISSUE*

Analyte	Units	47465	47466
Inorganic Chemistry			
Moisture	%	73.06±0.7	74.53±0.7
ICP			
Aluminum	ug/g	0.8±0.7	1.6±1
Antimony	ug/g	<0.05	<0.05
Arsenic	ug/g	<0.02	<0.02
Barium	ug/g	0.11±0.02	0.18±0.02
Beryllium	ug/g	<0.005	<0.005
Boron	ug/g	<0.5	<0.5
Cadmium	ug/g	0.005±0.005	0.017±0.005
Chromium	ug/g	<0.2	<0.2
Cobalt	ug/g	0.008±0.005	0.007±0.005
Copper	ug/g	1.9±0.2	1.8±0.2
Iron	ug/g	38±10	37±10
Lead	ug/g	0.014±0.008	0.034±0.01
Manganese	ug/g	0.27±0.1	0.29±0.1
Molybdenum	ug/g	<0.05	<0.05
Nickel	ug/g	<0.02	<0.02
Selenium	ug/g	0.17±0.06	0.18±0.06
Silver	ug/g	<0.005	<0.005
Strontium	ug/g	<0.05	<0.05
Thallium	ug/g	<0.02	<0.02
Tin	ug/g	<0.02	<0.02
Titanium	ug/g	0.17±0.05	0.15±0.05
Uranium	ug/g	<0.002	0.004±0.003
Vanadium	ug/g	<0.05	<0.05
Zinc	ug/g	52±9	41±8
Radio Chemistry			
Lead-210	Bq/g	<0.0003	<0.0002
Radium-226	Bq/g	<0.00006	<0.00005

"<": not detected at level stated above.

Results are reported on a "raw weight" basis.

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808
Fax: (306) 933-7922

Jan 20, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK, S7L 6M7

This report was generated for samples included in SRC Group # 2010-11734

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Antimony	ug/g	0.00500	0.00290
Antimony	ug/g	0.00500	0.00290
Arsenic	ug/g	0.0630	0.109
Arsenic	ug/g	0.0630	0.130
Cadmium	ug/g	0.500	0.466
Cadmium	ug/g	0.500	0.533
Cobalt	ug/g	0.232	0.216
Cobalt	ug/g	0.232	0.242
Copper	ug/g	152	151
Copper	ug/g	152	168
Iron	ug/g	164	169
Iron	ug/g	164	184
Lead	ug/g	0.112	0.104
Lead	ug/g	0.112	0.122
Lead	ug/g	0.112	0.100
Lead-210	Bq/L	22.0	23.9
Lead-210	Bq	0.664	0.524
Manganese	ug/g	9.90	9.65
Manganese	ug/g	9.90	10.7
Molybdenum	ug/g	3.50	3.47
Molybdenum	ug/g	3.50	3.87
Radium-226	Bq/L	20.6	18.8
Radium-226	Bq/L	2.13	1.97
Selenium	ug/g	0.785	0.732
Selenium	ug/g	0.785	0.776
Silver	ug/g	0.0395	0.0388
Silver	ug/g	0.0395	0.0450
Strontium	ug/g	0.136	0.126
Strontium	ug/g	0.136	0.138
Vanadium	ug/g	0.109	0.103
Vanadium	ug/g	0.109	0.111

SRC ANALYTICAL

QC Analysis	Units	Target Value	Obtained Value
Zinc	ug/g	127	127
Zinc	ug/g	127	134

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.005	<0.005
Aluminum	ug/g	3.0	2.8
Arsenic	ug/g	<0.02	<0.02
Boron	ug/g	<0.5	<0.5
Barium	ug/g	0.18	0.15
Beryllium	ug/g	<0.005	<0.005
Cadmium	ug/g	0.024	0.017
Cobalt	ug/g	0.007	0.008
Chromium	ug/g	<0.2	0.3
Copper	ug/g	1.8	1.8
Iron	ug/g	37	38
Manganese	ug/g	0.29	0.28
Molybdenum	ug/g	<0.05	<0.05
Nickel	ug/g	<0.02	0.03
Lead	ug/g	0.10	0.093
Lead-210	Bq/g	<0.02	<0.02
Radium-226	Bq/g	<0.00005	<0.00005
Antimony	ug/g	<0.05	<0.05
Selenium	ug/g	0.18	0.17
Tin	ug/g	<0.02	<0.02
Strontium	ug/g	<0.05	<0.05
Titanium	ug/g	0.15	0.16
Thallium	ug/g	<0.02	<0.02
Uranium	ug/g	0.004	0.004
Vanadium	ug/g	<0.05	<0.05
Zinc	ug/g	41	44

All quality control results were within the specified limits and considered acceptable.

Signed: _____

Roxane Ortmann - Quality Control Supervisor

SRC Group: 2011-727

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, S7N 4N1
(306) 933-6932 or 1-800-240-8808
Fax: (306) 933-7922

CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Jan-26-2011 Client P.O.: 1420

Analysis has been reviewed by:

Jeff Zimmer
Inorganics Supervisor

Keith Gipman
ICP Supervisor

Dave Chorney
Radiochemistry and Slowpoke II Supervisor

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* Test methods and data are validated by the laboratory's Quality Assurance Program.

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    * Standard Methods for the Examination of Water and Wastewater APHA AWWA WEF
    * Environment Canada
    * US EPA
    * CANMET

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* Additional information is available upon request.

SRC ANALYTICAL

422 Downey Road
Saskatoon, Saskatchewan, Canada
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Feb 28, 2011

CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK S7L 6M7
Attn: Peter Vanriel

Date Samples Received: Jan-26-2011 Client P.O.: 1420

2315	CAMSELL PORTAGE - MOOSE MEAT JANUARY 2011 *TISSUE*
2316	FOND DU LAC - CARIBOU MEAT JANUARY 2011 *TISSUE*
2317	FOND DU LAC - LYNX MEAT JANUARY 2011 *TISSUE*

Analyte	Units	2315	2316	2317
Inorganic Chemistry				
Moisture	%	75.12±0.7	74.10±0.7	74.01±0.7
ICP				
Aluminum	ug/g	3.8±2	<0.5	1.2±0.9
Antimony	ug/g	<0.02	<0.02	<0.02
Arsenic	ug/g	<0.01	0.02±0.01	<0.01
Barium	ug/g	0.02±0.01	0.04±0.01	0.02±0.01
Beryllium	ug/g	<0.002	<0.002	<0.002
Boron	ug/g	<0.2	<0.2	<0.2
Cadmium	ug/g	<0.002	0.003±0.002	0.029±0.002
Chromium	ug/g	<0.1	0.1±0.1	<0.1
Cobalt	ug/g	0.010±0.002	0.003±0.002	<0.002
Copper	ug/g	1.6±0.1	2.5±0.1	0.74±0.08
Iron	ug/g	29±3	28±3	14±2
Lead	ug/g	0.002±0.002	0.003±0.002	0.004±0.003
Manganese	ug/g	0.13±0.05	0.29±0.07	0.10±0.04
Molybdenum	ug/g	<0.02	<0.02	<0.02
Nickel	ug/g	<0.01	0.03±0.01	<0.01
Selenium	ug/g	0.12±0.03	0.18±0.04	0.13±0.03
Silver	ug/g	<0.002	<0.002	<0.002
Strontium	ug/g	0.02±0.02	0.03±0.02	<0.02
Thallium	ug/g	<0.01	<0.01	<0.01
Tin	ug/g	<0.01	<0.01	<0.01
Titanium	ug/g	0.08±0.02	0.08±0.02	0.12±0.03
Uranium	ug/g	<0.001	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02	<0.02
Zinc	ug/g	45±10	29±1	30±1
Radio Chemistry				
Lead-210	Bq/g	<0.0003	0.0004±0.0003	<0.0002
Radium-226	Bq/g	<0.00006	<0.00008	<0.00006

"<": not detected at level stated above.

Results are reported on a "raw weight" basis.

SRC ANALYTICAL

Feb 28, 2011

CanNorth, Canada North Environmental Services Limited

2318 WOLLASTON LAKE - CARIBOU MEAT JANUARY 2011 *TISSUE*

Analyte	Units	2318
Inorganic Chemistry		
Moisture	%	74.39±0.7
ICP		
Aluminum	ug/g	<0.5
Antimony	ug/g	<0.02
Arsenic	ug/g	0.01±0.01
Barium	ug/g	0.03±0.01
Beryllium	ug/g	<0.002
Boron	ug/g	<0.2
Cadmium	ug/g	0.004±0.002
Chromium	ug/g	<0.1
Cobalt	ug/g	0.002±0.002
Copper	ug/g	3.7±0.2
Iron	ug/g	40±30
Lead	ug/g	0.003±0.002
Manganese	ug/g	0.30±0.07
Molybdenum	ug/g	<0.02
Nickel	ug/g	<0.01
Selenium	ug/g	0.17±0.04
Silver	ug/g	<0.002
Strontium	ug/g	<0.02
Thallium	ug/g	<0.01
Tin	ug/g	<0.01
Titanium	ug/g	0.06±0.02
Uranium	ug/g	<0.001
Vanadium	ug/g	<0.02
Zinc	ug/g	19±1
Radio Chemistry		
Lead-210	Bq/g	0.0017±0.0006
Radium-226	Bq/g	0.0001±0.0001

"<": not detected at level stated above.

Results are reported on a "raw weight" basis.

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SRC ANALYTICAL

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Saskatoon, Saskatchewan, Canada
S7N 4N1
(306) 933-6932 or 1-800-240-8808
Fax: (306) 933-7922

Feb 28, 2011

Quality Control Report

Peter Vanriel
CanNorth
Canada North Environmental Services Limited
#4, 130 Robin Crescent
Saskatoon, SK, S7L 6M7

This report was generated for samples included in SRC Group # 2011-727

Reference Materials and Standards:

A reference material of known concentration is used whenever possible as either a control sample or control standard and analyzed with each batch of samples. These "QC" results are used to assess the performance of the method and must be within clearly defined limits; otherwise corrective action is required.

QC Analysis	Units	Target Value	Obtained Value
Aluminum	ug/g	1200	1450
Arsenic	ug/g	6.88	8.35
Cadmium	ug/g	0.290	0.297
Chromium	ug/g	1.44	1.80
Copper	ug/g	14.3	14.8
Iron	ug/g	302	340
Lead	ug/g	0.225	0.328
Lead-210	Bq/L	22.0	20.7
Lead-210	Bq	0.332	0.369
Manganese	ug/g	2.87	2.96
Nickel	ug/g	1.16	1.36
Radium-226	Bq/L	20.6	19.4
Radium-226	Bq/L	0.427	0.419
Selenium	ug/g	3.70	4.19
Silver	ug/g	0.0250	0.0243
Zinc	ug/g	45.4	51.4

Duplicates:

Duplicates are used to assess problems with precision and help ensure that samples within a given batch were processed appropriately. The difference between duplicates must be within strict limits, otherwise corrective action is required. Please note, the duplicate(s) in this report are duplicates analyzed within a given batch of test samples and may not be from this specific group of samples.

Duplicate Analysis	Units	First Result	Second Result
Silver	ug/g	<0.002	<0.002
Aluminum	ug/g	<0.5	<0.5
Arsenic	ug/g	0.01	0.01
Boron	ug/g	<0.2	<0.2
Barium	ug/g	0.03	0.03

SRC ANALYTICAL

Duplicate Analysis	Units	First Result	Second Result
Beryllium	ug/g	<0.002	<0.002
Cadmium	ug/g	0.004	0.004
Cobalt	ug/g	0.002	0.003
Chromium	ug/g	<0.1	<0.1
Copper	ug/g	3.7	3.9
Iron	ug/g	40	40
Iron	ug/g	41	44
Manganese	ug/g	0.30	0.29
Molybdenum	ug/g	<0.02	<0.02
Nickel	ug/g	<0.01	<0.01
Lead	ug/g	0.003	0.003
Lead-210	Bq/g	0.0003	0.0005
Lead-210	Bq/g	<0.02	<0.02
Radium-226	Bq/g	<0.005	<0.005
Antimony	ug/g	<0.02	<0.02
Selenium	ug/g	0.17	0.16
Tin	ug/g	<0.01	<0.01
Strontium	ug/g	<0.02	<0.02
Titanium	ug/g	0.06	0.06
Thallium	ug/g	<0.01	<0.01
Uranium	ug/g	<0.001	<0.001
Vanadium	ug/g	<0.02	<0.02
Zinc	ug/g	16	16
Zinc	ug/g	19	17

Spikes and/or Surrogates:

Samples spiked with a known quantity of the analyte of interest or a surrogate which is a known quantity of a compound which behaves in a similar manner to the analyte of interest, are used to assess problems with the sample processing or sample matrix. The recovery must be within clearly defined limits when the quantity of spike is comparable to the sample concentration.

Spike Analysis	% Recovered
Radium-226	84

All quality control results were within the specified limits and considered acceptable.

Signed: _____

Roxane Ortmann - Quality Control Supervisor

CANNORTH ENVIRONMENTAL SERVICES
ATTN: CASSANDRA REES
4 130 ROBIN CRES.
SASKATOON SK S7L 6M7

Date Received: 01-NOV-11
Report Date: 22-NOV-11 15:09 (MT)
Version: FINAL

Client Phone: 306-652-4432

Certificate of Analysis

Lab Work Order #: L1079274

Project P.O. #: NOT SUBMITTED
Job Reference: 1489
C of C Numbers: L1079274
Legal Site Desc:

B. Morgan

Brian Morgan
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-1 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.23	+/-0.06		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	27.6	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	1.95	+/-0.57		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	27.8	+/-2.9		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	53.1	+/-7.5		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	41.0	+/-7.4		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	52.2	+/-8.8		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	18.7	+/-4.7	DLM	4.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	337	+/-45	DLM	20	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.0	+/-2.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	13.5	+/-2.6		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	19.5	+/-4.0		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	4.8	+/-0.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	12.2	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	360	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.31	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.17	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-2 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.21	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.83	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	0.95	+/-0.56		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	88.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	10.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.79	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-2 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281731
Available Potassium	17	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.5	+/-2.4		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.9	+/-0.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.9	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	7.0	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.97	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	10.3	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	19.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.41	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287774
L1079274-3 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.11	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.20	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.94	+/-0.43		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	2.01	+/-0.64		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	73.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	24.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	2.03	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	8.8	+/-2.6		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	11	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.5	+/-1.9		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	6.1	+/-2.2		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-3 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	23.6	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	5.33	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287774
L1079274-4 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	48.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	47.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	3.49	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	90.3	+/-23		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	25.5	+/-4.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	8.2	+/-1.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	21.8	+/-4.5		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.96	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	22.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.52	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.35	+/-0.05		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-5 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	7.79	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.46	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	133	+/-33		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	31.3	+/-6.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.5	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	10.7	+/-1.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-5 STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sodium (Na)	58.1	+/-11		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	2.29	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	19.1	+/-3.9		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	19.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	6.33	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.57	+/-0.08		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-6 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.15	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	26.1	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	1.23	+/-0.47		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	26.3	+/-2.8		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	48.3	+/-6.9		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	29.7	+/-5.4		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	37.8	+/-6.4		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	20.5	+/-5.1		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	147	+/-22		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.9	+/-1.8		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	11.7	+/-2.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	7.5	+/-1.6		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.9	+/-0.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.30	-	SAR:DL	0.30	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	10.2	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	339	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.64	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.12	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-7 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.32	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.78	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-7 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.07	+/-0.57		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	9.68	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.31	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.1	+/-1.4		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	27	+/-10		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	14.0	+/-4.0		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.5	+/-1.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	2.3	+/-0.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.0	+/-0.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	11.4	+/-2.9		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.13	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	11.2	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	22.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.70	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.12	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-8 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.42	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.79	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.56	+/-0.60		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	11.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.65	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-8 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	10.5	+/-2.9		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	12	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	297	+/-74	DLM	10	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	57.8	+/-11		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	7.2	+/-1.6		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	11.0	+/-2.0		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	23.2	+/-4.8		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.73	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	23.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.01	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	1.08	+/-0.14		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-9 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	<0.1	-		0.1	%	-	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	4.87	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.77	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	6.1	+/-2.1		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	11	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	270	+/-67	DLM	10	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	24.7	+/-4.8		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	2.0	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	6.9	+/-1.3		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	19.3	+/-4.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-9 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	0.88	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	22.4	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.06	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.96	+/-0.13		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-10 STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 21-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	8.34	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.10	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	21.0	+/-5.7		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.6	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	14.0	+/-3.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	2.39	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	20.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	6.21	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-11 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.24	+/-0.06		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	25.9	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	2.02	+/-0.58		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	26.2	+/-2.8		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	54.4	+/-7.7		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	30.4	+/-5.5		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	38.7	+/-6.5		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-11 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	39.9	+/-9.3		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	246	+/-34		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.7	+/-2.2		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	11.9	+/-2.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	14.0	+/-2.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.5	+/-0.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.30	-	SAR:DL	0.30	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	12.0	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	355	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.48	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.13	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-12 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	2.04	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.83	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	2.0	+/-0.2		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	3.96	+/-0.85		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.9	+/-0.5		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	3.3	+/-0.6		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	72.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	26.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.00	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	11.3	+/-3.1		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	39	+/-11		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	20.2	+/-5.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.2	+/-1.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	6.8	+/-1.5		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	11.5	+/-2.9		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.28	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-12 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	14.8	+/-3.5		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	63.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.08	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-13 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.42	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.73	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.27	+/-0.58		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	81.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	18.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.53	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	13.4	+/-3.5		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	17	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.4	+/-2.4		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.6	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.5	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	7.2	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.23	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	8.1	+/-2.9		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	36.2	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.44	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287774
L1079274-14 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-14 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
Total Organic Carbon	0.53	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.72	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.5	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	2.87	+/-0.73		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.4	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	1.4	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	75.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	23.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.81	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	10.2	+/-2.9		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	23	+/-10		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	23.1	+/-6.2		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	12.7	+/-3.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	36.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	5.43	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-15 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	81.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	17.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.84	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	32.8	+/-8.6		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.2	+/-0.8		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.7	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-15 STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	18.4	+/-4.0		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	2.82	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	21.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	5.77	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.16	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-16 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.31	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	45.5	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	2.60	+/-0.67		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	45.8	+/-4.8		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	82.3	+/-12		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	64.6	+/-12		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	82.5	+/-14		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	65.0	+/-15	DLM	4.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	390	+/-51	DLM	20	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.8	+/-2.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.3	+/-1.5		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	15.8	+/-3.3		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.1	+/-0.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	5.2	+/-2.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.43	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	14.8	+/-3.5		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	539	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.19	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-17 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.13	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.95	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	1.07	+/-0.45		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-17 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	1.1	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	2.95	+/-0.73		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.4	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	1.5	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	76.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	22.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.14	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	6.0	+/-2.0		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	24	+/-10		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.1	+/-2.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.5	+/-0.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	4.9	+/-1.2		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	7.7	+/-2.4		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.14	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	12.3	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	39.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	4.23	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.10	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-18 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.44	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.74	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	2.55	+/-0.69		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.2	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	1.2	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	63.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	35.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	1.10	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-18 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	4.9	+/-1.8		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	11	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.5	+/-1.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	6.8	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	27.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH in Saturated Paste	5.52	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287774
L1079274-19 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AB									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.11	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.92	+/-0.43		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	13.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	<0.10	-		0.10	%	-	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.8	+/-1.5		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	<10	-		10	mg/kg	-	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	10.5	+/-3.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	5.5	+/-1.2		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.1	+/-0.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	8.6	+/-2.5		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-19 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AB									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	0.79	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	9.0	+/-3.0		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	21.2	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH In Saturated Paste	5.86	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-20 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.19	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.75	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.26	+/-0.58		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	85.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	14.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.21	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand / Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	11.6	+/-3.2		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	<10	-		10	mg/kg	-	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	54.1	+/-14		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	15.5	+/-3.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	4.9	+/-0.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	10.2	+/-2.7		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.58	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	29.0	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287774
pH In Saturated Paste	4.83	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287774
Conductivity Sat. Paste	0.22	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287774
L1079274-21 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-21 STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	75.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	24.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.52	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.6	+/-1.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	20.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.43	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-22 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.31	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	42.4	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	2.57	+/-0.67		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	42.7	+/-4.5		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	91.5	+/-13		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	50.7	+/-9.2		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	64.7	+/-11		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	42.3	+/-9.8	DLM	4.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	273	+/-37	DLM	20	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.4	+/-1.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	5.8	+/-1.2		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	8.9	+/-1.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.50	-	SAR:DL	0.50	SAR	-	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-22 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	10.7	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	566	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	3.79	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.12	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-23 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	0.37	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.82	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.07	+/-0.57		0.60	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	89.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	10.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.26	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	4.1	+/-1.7		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	19	+/-10		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	63.6	+/-16		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	17.2	+/-3.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	8.4	+/-1.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	4.4	+/-0.8		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	8.2	+/-2.4		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.46	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	5.5	+/-2.7		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	34.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	3.50	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.31	+/-0.05		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-24 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282023

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-24 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
Total Organic Carbon	0.13	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	0.97	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	1.02	+/-0.57		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2283007
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	9.44	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	<0.10	-		0.10	%	-	17-NOV-11	21-NOV-11	R2289861
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289861
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	34.4	+/-8.1		2.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	13	+/-9		10	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.6	+/-1.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	27.5	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.70	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-25 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	83.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Silt (0.05mm - 2um)	16.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
% Clay (<2um)	0.55	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289861
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289861
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.2	+/-2.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.4	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-25 STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 26-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	6.0	+/-2.2		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.07	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	19.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.48	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-26 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.42	+/-0.08		0.10	%	0	03-NOV-11	03-NOV-11	R2282023
Total Organic Carbon	47.2	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282023
CaCO3 Equivalent	3.47	+/-0.81		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282023
Total Carbon by combustion method									
Total Carbon by Combustion	47.6	+/-5.0		0.1	%	0	03-NOV-11	03-NOV-11	R2282024
Miscellaneous Parameters									
Cation Exchange Capacity	80.1	+/-11		0.80	meq/100g	-8.8%	08-NOV-11	08-NOV-11	R2283622
Organic Matter by LOI at 375 deg C.									
Organic Matter	63.4	+/-11		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Loss on Ignition @ 375 C	80.9	+/-14		1.0	%	0	16-NOV-11	17-NOV-11	R2283007
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281483
Plant Available Phosphorus and Potassium									
Available Phosphate-P	53.5	+/-12	DLM	4.0	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Available Potassium	374	+/-49	DLM	20	mg/kg	0	04-NOV-11	04-NOV-11	R2281731
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.9	+/-2.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	13.7	+/-2.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	16.9	+/-3.5		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	5.7	+/-1.0		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	10.6	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	549	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.37	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-27 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	1.16	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	0.76	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-27 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	1.2	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	4.33	+/-0.89		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.1	+/-0.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	2.3	+/-0.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	36.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	60.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	3.02	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Silt loam	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	12.0	+/-3.2		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	43	+/-11		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	11.5	+/-3.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.0	+/-0.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	7.8	+/-1.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.3	+/-0.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	10.4	+/-2.7		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	1.03	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	18.4	+/-3.9		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	42.6	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	3.77	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.13	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-28 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	2.70	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	1.03	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	2.8	+/-0.3		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	16.6	+/-2.5		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	5.1	+/-0.9		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	6.1	+/-1.0		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	49.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	47.8	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	2.59	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-28 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.6	+/-1.5		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	36	+/-11		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	35.0	+/-9.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.5	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	8.5	+/-1.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.2	+/-0.5		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	6.5	+/-2.2		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.72	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	54.2	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.25	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-29 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.74	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	0.71	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.7	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	5.14	+/-0.99		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.6	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	1.7	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	25.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	71.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	3.47	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Silt loam	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283478
Available Potassium	33	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.1	+/-2.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.1	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.1	+/-0.6		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	5.7	+/-2.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-29 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	1.08	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	39.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.89	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-30 BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	13.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.57	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	17.4	+/-4.8		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.1	+/-1.5		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.4	+/-0.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	4.8	+/-2.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.40	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	22.4	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.44	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-31 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.32	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	46.8	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	2.69	+/-0.68		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	47.1	+/-5.0		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	68.3	+/-9.6		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	65.7	+/-12		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	83.8	+/-14		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-31 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	54.6	+/-12	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	421	+/-55	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.5	+/-2.4		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	13.2	+/-2.6		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	26.0	+/-5.3		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	5.2	+/-1.0		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	16.3	+/-3.6		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	740	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.18	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.20	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-32 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.58	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	2.20	+/-0.66		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.0	+/-0.2		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	6.16	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.19	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	13.9	+/-3.6		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	30	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	77.1	+/-20		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	12.9	+/-2.5		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	13.0	+/-2.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	11.2	+/-2.0		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	5.4	+/-2.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.26	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-32 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	9.0	+/-3.0		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	33.9	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH In Saturated Paste	3.53	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.37	+/-0.05		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-33 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFCCJ									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	1.00	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	0.74	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	1.0	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	8.38	+/-1.4		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.6	+/-0.5		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	3.0	+/-0.5		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	95.2	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	4.33	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.50	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	56.4	+/-13		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	30	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.5	+/-1.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	2.1	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	34.4	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.20	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-34 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-34 BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 25-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	95.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	3.73	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.67	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	19.4	+/-5.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.5	+/-1.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	1.7	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	2.4	+/-0.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.30	-	SAR:DL	0.30	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	28.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.32	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-35 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.18	+/-0.06		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	38.3	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	1.52	+/-0.51		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	38.5	+/-4.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	33.7	+/-4.9		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	51.4	+/-9.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	65.5	+/-11		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	46.5	+/-11	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	251	+/-35	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	10.5	+/-3.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	21.5	+/-4.2		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	15.8	+/-3.3		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	6.1	+/-1.1		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	13.3	+/-3.3		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-35 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	493	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.32	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.18	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-36 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.45	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.5	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	1.87	+/-0.63		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	13.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	<0.10	-		0.10	%	-	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	16.9	+/-4.3		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	23	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.1	+/-1.4		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.3	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	2.4	+/-0.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.70	-	SAR:DL	0.70	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	10.2	+/-3.1		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	28.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.21	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-37 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.60	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-37 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	3.03	+/-0.74		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.6	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	1.7	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.8	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	12.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.55	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	37.7	+/-8.8		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	33	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.0	+/-1.2		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	3.2	+/-0.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	31.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH In Saturated Paste	5.61	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-38 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.15	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	0.98	+/-0.57		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	85.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	14.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.31	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand / Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289805

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-38 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	47.9	+/-11		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	66	+/-13		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.1	+/-2.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.5	+/-0.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	4.4	+/-2.0		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
SAR	0.65	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	21.3	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.71	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-39 BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	87.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	12.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.45	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.4	+/-1.9		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.1	+/-0.7		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	<1.0	-		1.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.80	-	SAR:DL	0.80	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	25.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	5.84	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287921
L1079274-40 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.30	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	42.9	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	2.54	+/-0.66		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-40 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	43.2	+/-4.6		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	54.3	+/-7.7		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	56.8	+/-10		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	72.4	+/-12		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	68.8	+/-16	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	449	+/-58	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.4	+/-1.7		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287288
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	9.5	+/-1.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287273
Potassium (K)	22.9	+/-4.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287273
Magnesium (Mg)	4.8	+/-0.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287273
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287273
SAR	<0.30	-	SAR:DL	0.30	SAR	-	16-NOV-11	16-NOV-11	R2287273
Sulfur (as SO4)	14.8	+/-3.5		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287273
pH and EC (Saturated Paste)									
% Saturation	661	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287921
pH in Saturated Paste	4.66	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287921
Conductivity Sat. Paste	0.17	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287921
L1079274-41 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.17	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	1.03	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	1.99	+/-0.64		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	63.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	36.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.53	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	9.5	+/-2.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-41 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Potassium	25	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.1	+/-1.6		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.0	+/-0.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	2.6	+/-0.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	7.2	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	1.00	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	9.7	+/-3.0		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	23.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.76	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-42 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.80	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.8	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	4.12	+/-0.87		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.7	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	1.8	+/-0.3		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	96.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	2.89	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.62	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	64.3	+/-15		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	16	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	78.3	+/-20		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	23.4	+/-4.5		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	4.9	+/-1.2		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	7.4	+/-1.3		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	7.4	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.34	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-42 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	36.0	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.23	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.31	+/-0.05		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-43 BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	78.2	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	19.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	2.30	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	32.4	+/-8.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.8	+/-1.6		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	1.3	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	3.4	+/-0.7		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	7.6	+/-2.4		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.57	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	33.3	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.62	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-44 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.25	+/-0.06		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	39.4	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	2.05	+/-0.58		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	39.6	+/-4.2		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	67.4	+/-9.5		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	52.2	+/-9.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	66.6	+/-11		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	69.7	+/-16	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	345	+/-46	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-44 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.5	+/-1.9		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.9	+/-2.9		2.0	mg/L	+8%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	13.6	+/-2.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	4.0	+/-0.8		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	12.4	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	589	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.24	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.14	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-45 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.56	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	0.73	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	3.39	+/-0.78		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	1.1	+/-0.2		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	67.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	31.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	1.58	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	18.7	+/-4.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	37	+/-11		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.1	+/-1.9		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.2	+/-0.8		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	6.9	+/-1.5		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	6.2	+/-2.2		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.95	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	13.4	+/-3.3		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	29.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.68	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-45 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
Conductivity Sat. Paste	0.10	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-46 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.98	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	1.0	+/-0.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	6.49	+/-1.2		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.3	+/-0.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	2.7	+/-0.5		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	82.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	16.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	1.20	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	36.6	+/-8.6		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	26	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	166	+/-42		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	26.3	+/-5.1		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	18.9	+/-3.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	10.8	+/-1.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	4.8	+/-2.1		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.20	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	34.9	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.96	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.62	+/-0.08		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-47 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.16	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282026

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Sample Details/Parameters	Result	MU	Qualifier	D.L	Units	Bias	Extracted	Analyzed	Batch
L1079274-47 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Miscellaneous Parameters									
Cation Exchange Capacity	1.04	+/-0.57		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	09-NOV-11	10-NOV-11	R2285383
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	09-NOV-11	10-NOV-11	R2285383
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	1.00	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.48	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	27.4	+/-6.6		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	14	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	16.3	+/-4.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.4	+/-1.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	3.1	+/-0.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.50	-	SAR:DL	0.50	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	35.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	5.02	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-48 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	54.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	40.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	5.54	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	190	+/-48		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	68.3	+/-13		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	3.2	+/-0.9		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	25.4	+/-4.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	9.3	+/-2.6		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.24	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-48 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	24.6	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.27	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.71	+/-0.09		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-49 BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C2									
Sampled By: JAME / ALANA on 22-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	65.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	27.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	7.45	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	7.1	+/-2.3		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	1.0	+/-0.6		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	6.9	+/-2.3		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	19.1	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	5.33	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-50 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.27	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	40.0	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	2.29	+/-0.62		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	40.3	+/-4.3		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	51.7	+/-7.3		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	43.4	+/-7.8		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	55.3	+/-9.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<6.0	-	DLM	6.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	41.5	+/-9.6	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	369	+/-49	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-50 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	30.8	+/-8.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	53.2	+/-10		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	50.1	+/-10		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	15.7	+/-2.8		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.10	-	SAR:DL	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	27.4	+/-4.9		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	404	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.50	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.40	+/-0.06		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-51 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	97.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Silt (0.05mm - 2um)	2.77	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
% Clay (<2um)	0.17	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289805
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289805
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.7	+/-1.7		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.5	+/-1.4		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	10.1	+/-2.1		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.40	-	SAR:DL	0.40	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	11.5	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	42.0	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.91	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-52 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	1.78	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	1.8	+/-0.2		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	2.98	+/-0.74		0.80	meq/100g	-8.8%	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-52 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.3	+/-0.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	2.6	+/-0.4		1.0	%	0	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	97.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	2.69	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.33	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	7.4	+/-2.3		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Available Potassium	47	+/-11		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.3	+/-2.1		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.1	+/-1.3		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	16.4	+/-3.4		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.40	-	SAR:DL	0.40	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	11.6	+/-3.2		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	51.7	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.04	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.13	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-53 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
Total Organic Carbon	0.16	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282027
CaCO3 Equivalent	<0.70	-		0.70	%	-	03-NOV-11	03-NOV-11	R2282027
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282026
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	16-NOV-11	16-NOV-11	R2288182
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	04-NOV-11	05-NOV-11	R2283309
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	0.91	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.45	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	04-NOV-11	04-NOV-11	R2281495
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283478

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-53 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Potassium	<10	-		10	mg/kg	-	08-NOV-11	08-NOV-11	R2283478
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	89.0	+/-23		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	18.5	+/-3.6		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	7.0	+/-1.5		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	4.8	+/-0.9		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	24.9	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.50	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.46	+/-0.08		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-54 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.10	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.87	+/-0.43		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.9	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	7.87	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	1.20	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	12.7	+/-3.4		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	10	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	33.7	+/-8.8		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	10.3	+/-2.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	3.7	+/-1.0		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	2.9	+/-0.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.30	-	SAR:DL	0.30	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-54 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	24.3	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.34	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.14	+/-0.02		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-55 FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	83.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	14.8	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	1.55	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	12.2	+/-3.5		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.3	+/-1.0		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	2.6	+/-0.8		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	4.8	+/-2.0		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.63	-	SAR:M	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	19.9	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	5.15	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-56 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.34	+/-0.07		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	43.0	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	2.83	+/-0.71		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	43.3	+/-4.6		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	74.0	+/-10	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	53.2	+/-9.6		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	67.9	+/-11		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	22.6	+/-5.5	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	337	+/-45	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-56 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	9.3	+/-2.8		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.8	+/-2.9		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	15.6	+/-3.2		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	4.4	+/-0.8		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	12.9	+/-3.3		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	406	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.63	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.15	+/-0.03		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-57 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.35	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.71	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	1.59	+/-0.61		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.2	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	6.31	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.48	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	4.1	+/-1.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	20	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	184	+/-46		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	26.3	+/-5.1		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	17.6	+/-3.6		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	14.4	+/-2.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	7.4	+/-2.8		5.0	mg/L	0	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	27.2	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.05	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-57 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
Conductivity Sat. Paste	0.93	+/-0.12		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-58 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	1.00	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	91.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	7.70	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.86	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	14.3	+/-3.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	20	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	98.7	+/-25		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	22.5	+/-4.4		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	14.3	+/-3.0		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	5.7	+/-1.1		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	<0.20	-	SAR:DL	0.20	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	24.0	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	3.99	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	0.39	+/-0.05		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-59 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	66.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	32.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-59 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C1									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Particle Size Analysis:Mini-Pipet Method									
% Clay (<2um)	0.79	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sandy loam	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	314	+/-78	DLM	10	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	128	+/-25		2.0	mg/L	+9%	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	26.8	+/-5.5		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	19.7	+/-3.6		2.0	mg/L	+10%	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	8.4	+/-2.5		4.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
SAR	0.18	-		0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	18.2	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	4.02	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	1.15	+/-0.15		0.10	dS m-1	0	15-NOV-11	15-NOV-11	R2287737
L1079274-60 FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C2									
Sampled By: JAME / ALANA on 23-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281964
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281964
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	77.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	22.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.77	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Loamy sand	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.4	+/-1.7		2.0	mg/L	0	16-NOV-11	16-NOV-11	R2287454
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Potassium (K)	1.6	+/-0.7		1.0	mg/L	+6%	16-NOV-11	16-NOV-11	R2287450
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
Sodium (Na)	<4.0	-		4.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	16-NOV-11	16-NOV-11	R2287450
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	16-NOV-11	16-NOV-11	R2287450
pH and EC (Saturated Paste)									
% Saturation	21.8	+/-0.8		1.0	%	0	15-NOV-11	15-NOV-11	R2287737
pH in Saturated Paste	5.19	+/-0.06		0.10	pH	0	15-NOV-11	15-NOV-11	R2287737
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	15-NOV-11	15-NOV-11	R2287737
L1079274-61 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.14	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	19.4	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	1.19	+/-0.46		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-61 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	19.6	+/-2.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	39.4	+/-5.6	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	40.0	+/-7.2		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	50.9	+/-8.6		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<6.0	-	DLM	6.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	49.3	+/-11		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	324	+/-43		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	29.1	+/-7.7		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	39.2	+/-7.6		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	44.9	+/-9.2		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	13.4	+/-2.4		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	30.7	+/-5.3		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	280	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	3.83	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.40	+/-0.06		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-62 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.63	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.78	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	1.00	+/-0.57		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	97.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	2.24	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	<0.10	-		0.10	%	-	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.6	+/-1.5		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-62 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Potassium	24	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	261	+/-65	DLM	10	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	45.1	+/-8.7		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	23.7	+/-4.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	14.3	+/-2.6		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	6.4	+/-2.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	30.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH In Saturated Paste	2.81	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	1.49	+/-0.19		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-63 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.13	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.72	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	6.33	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.19	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.9	+/-1.5		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	11	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.8	+/-2.2		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	2.5	+/-0.8		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	5.7	+/-2.1		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-63 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	23.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.28	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-64 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.12	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.72	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.8	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	5.78	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.46	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	18.8	+/-4.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	11	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	13.5	+/-3.8		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.6	+/-0.8		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.7	+/-0.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.70	-	SAR:DL	0.70	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	22.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.28	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-65 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-65 FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.0	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	6.16	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.84	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	35.8	+/-9.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	10.0	+/-2.0		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.4	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	6.4	+/-2.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.56	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	22.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.69	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.16	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-66 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.26	+/-0.06		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	18.7	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	2.14	+/-0.60		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	18.9	+/-2.0		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	46.8	+/-6.7	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	30.9	+/-5.6		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	39.2	+/-6.6		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<6.0	-	DLM	6.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	14.0	+/-3.7		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	206	+/-29		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	10.1	+/-3.0		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	16.9	+/-3.3		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	17.6	+/-3.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	4.3	+/-0.8		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.20	-	SAR:DL	0.20	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	15.9	+/-3.6		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	295	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-66 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
pH in Saturated Paste	4.21	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.18	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-67 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.12	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.80	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	<0.10	-		0.10	%	-	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.50	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Available Potassium	<10	-		10	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.0	+/-0.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	30.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.62	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-68 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.11	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.92	+/-0.43		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-68 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	0.36	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.36	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.3	+/-1.4		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	11	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.1	+/-1.2		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	26.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.73	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-69 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.11	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.82	+/-0.42		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	97.4	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	1.67	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.91	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-69 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	4.9	+/-1.8		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	<10	-		10	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	29.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.12	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-70 FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	96.6	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	2.47	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.96	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.4	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.3	+/-0.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	27.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.20	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-71 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.17	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	19.2	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-71 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
CaCO3 Equivalent	1.44	+/-0.50		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	19.3	+/-2.1		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	33.0	+/-4.8	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	26.0	+/-4.7		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	33.0	+/-5.6		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<6.0	-	DLM	6.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	10.9	+/-3.0		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	157	+/-24		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	13.1	+/-3.7		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	21.1	+/-4.1		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	18.5	+/-3.8		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	5.9	+/-1.1		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.20	-	SAR:DL	0.20	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	19.1	+/-3.9		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	209	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	3.96	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.22	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-72 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.11	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.96	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.3	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	0.60	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.12	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-72 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Available Potassium	<10	-		10	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.6	+/-0.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	33.5	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.69	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-73 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AB									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.72	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	<0.1	-		0.1	%	-	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	95.1	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	4.57	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.36	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Available Potassium	<10	-		10	mg/kg	-	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-73 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AB									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	22.4	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	4.59	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-74 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.12	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.70	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.1	+/-0.06		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.5	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	5.90	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.57	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	21.4	+/-5.3		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	30	+/-10		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	23.0	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.41	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-75 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-75 FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 24-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	94.7	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Silt (0.05mm - 2um)	4.85	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
% Clay (<2um)	0.45	+/-3.0		0.10	%	0	17-NOV-11	21-NOV-11	R2289806
Texture	Sand	-				-	17-NOV-11	21-NOV-11	R2289806
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	22.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.49	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-76 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.35	+/-0.08		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	41.9	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	2.95	+/-0.73		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	42.2	+/-4.5		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	75.4	+/-11	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	56.7	+/-10		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	72.3	+/-12		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	58.7	+/-13	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	391	+/-51	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.8	+/-1.6		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.5	+/-1.4		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	18.1	+/-3.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.40	-	SAR:DL	0.40	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	17.8	+/-3.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-76 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	624	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	3.85	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.18	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-77 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.43	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	1.01	+/-0.44		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	0.5	+/-0.09		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	3.41	+/-0.78		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	1.0	+/-0.2		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	75.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	23.8	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.91	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	6.2	+/-2.1		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	57	+/-12		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.4	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.7	+/-1.0		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	5.7	+/-2.1		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	10.5	+/-3.1		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	33.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	3.89	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-78 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	0.37	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	0.73	+/-0.41		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-78 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	3.38	+/-0.78		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	1.1	+/-0.2		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	74.1	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	25.5	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.40	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	8.5	+/-2.5		2.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	16	+/-9		10	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	24.8	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.64	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-79 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	71.6	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	26.1	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	2.31	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sandy loam	-				-	18-NOV-11	21-NOV-11	R2289809
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	6.9	+/-2.3		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-79 WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	20.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	5.67	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288653
L1079274-80 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.38	+/-0.08		0.10	%	0	03-NOV-11	03-NOV-11	R2282029
Total Organic Carbon	46.4	-		0.10	%	-	03-NOV-11	03-NOV-11	R2282029
CaCO3 Equivalent	3.15	+/-0.76		0.70	%	+9%	03-NOV-11	03-NOV-11	R2282029
Total Carbon by combustion method									
Total Carbon by Combustion	46.8	+/-4.9		0.1	%	0	03-NOV-11	03-NOV-11	R2282028
Miscellaneous Parameters									
Cation Exchange Capacity	73.0	+/-10	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286717
Organic Matter by LOI at 375 deg C.									
Organic Matter	63.8	+/-12		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Loss on Ignition @ 375 C	81.5	+/-14		1.0	%	0	08-NOV-11	09-NOV-11	R2284430
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283578
Plant Available Phosphorus and Potassium									
Available Phosphate-P	69.9	+/-16	DLM	4.0	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Available Potassium	419	+/-55	DLM	20	mg/kg	0	08-NOV-11	08-NOV-11	R2283572
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.2	+/-2.1		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	10.0	+/-2.0		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	23.9	+/-4.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	2.7	+/-0.6		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.30	-	SAR:DL	0.30	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	17.7	+/-3.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	598	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288653
pH in Saturated Paste	3.86	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288653
Conductivity Sat. Paste	0.24	+/-0.04		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288653
L1079274-81 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.75	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.7	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282032

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-81 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Miscellaneous Parameters									
Cation Exchange Capacity	2.61	+/-0.70		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.5	+/-0.3		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.6	+/-0.3		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	63.7	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	35.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.93	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sandy loam	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	5.2	+/-1.9		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	28	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.0	+/-1.8		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.3	+/-0.7		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	4.8	+/-1.1		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	<0.70	-	SAR:DL	0.70	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	10.0	+/-3.0		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	43.5	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	3.63	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-82 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.65	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	0.74	+/-0.41		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	3.53	+/-0.80		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.7	+/-0.3		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.8	+/-0.3		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	77.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	22.6	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-82 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	6.6	+/-2.1		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	19	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	14.7	+/-4.1		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.1	+/-0.7		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	3.6	+/-0.9		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	<0.80	-	SAR:DL	0.80	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	31.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.63	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-83 WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	80.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	18.9	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	1.03	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	13.7	+/-3.9		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	5.3	+/-1.2		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	1.7	+/-0.7		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.1	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.49	-	SAR:M	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	19.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.24	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-84 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.16	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	43.3	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-84 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
CaCO3 Equivalent	1.35	+/-0.48		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	43.4	+/-4.6		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	55.6	+/-7.9	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	60.8	+/-11		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	77.6	+/-13		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	40.1	+/-9.3	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	282	+/-38	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.2	+/-1.9		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	8.5	+/-1.7		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	15.3	+/-3.2		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	2.3	+/-0.5		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	5.1	+/-2.1		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.40	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	12.8	+/-3.3		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	657	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	3.81	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.16	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-85 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.56	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	2.58	+/-0.70		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.2	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.2	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	77.6	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	21.5	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.98	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-85 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	9.2	+/-2.7		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	32	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.2	+/-1.4		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	3.8	+/-1.0		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.1	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	10.1	+/-3.0		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	35.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	3.98	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-86 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.39	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	2.51	+/-0.69		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.3	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.3	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	92.6	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	6.74	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.67	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	23.1	+/-5.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	28	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	61.6	+/-16		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	32.1	+/-6.2		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	2.9	+/-0.8		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	10.2	+/-1.8		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	7.3	+/-2.3		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.29	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-86 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	12.5	+/-3.3		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	26.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.77	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.33	+/-0.05		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-87 WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 27-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	78.8	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	20.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.81	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.4	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	14.2	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.90	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-88 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.21	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	41.1	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	1.73	+/-0.54		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	41.3	+/-4.4		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	74.3	+/-10	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	53.5	+/-9.7		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	68.3	+/-12		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	21.1	+/-5.2	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-88 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Potassium	294	+/-40	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.3	+/-1.9		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.7	+/-1.6		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	12.1	+/-2.5		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	2.3	+/-0.6		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	<0.30	-	SAR:DL	0.30	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	18.0	+/-3.8		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	462	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.29	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.14	+/-0.02		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-89 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	1.34	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	1.3	+/-0.2		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	4.79	+/-0.95		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.2	+/-0.4		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	2.4	+/-0.4		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	85.2	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	14.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.74	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand / Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	63.6	+/-14		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	38	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.6	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	4.9	+/-1.2		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.5	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	7.5	+/-2.9		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-89 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	42.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.36	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-90 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.38	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	0.71	+/-0.41		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.71	+/-0.62		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	84.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	14.9	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.72	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	10.5	+/-2.9		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	16	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	2.2	+/-0.7		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	34.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.56	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-91 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.31	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-91 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.75	+/-0.62		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	89.7	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	10.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	62.1	+/-14		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	<10	-		10	mg/kg	-	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	33.3	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH In Saturated Paste	5.35	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-92 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	94.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	5.90	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.12	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-92 WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	27.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.83	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-93 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.19	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	37.0	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	1.58	+/-0.51		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	37.2	+/-3.9		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	69.1	+/-9.7	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	44.1	+/-8.0		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	56.1	+/-9.5		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<8.0	-	DLM	8.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	24.3	+/-5.9	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	183	+/-27	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.7	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	5.1	+/-1.1		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	2.9	+/-0.8		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	<0.50	-	SAR:DL	0.50	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	8.0	+/-2.9		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	384	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.46	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-94 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.60	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	0.79	+/-0.42		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.6	+/-0.09		0.1	%	0	04-NOV-11	04-NOV-11	R2282032

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-94 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Miscellaneous Parameters									
Cation Exchange Capacity	1.60	+/-0.61		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.1	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	75.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	24.1	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.50	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	9.2	+/-2.7		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	19	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.1	+/-1.2		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.2	+/-0.7		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	3.0	+/-0.9		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	<0.70	-	SAR:DL	0.70	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	9.5	+/-3.0		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	39.3	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.38	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-95 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.37	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.60	+/-0.61		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.8	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	9.19	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-95 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	55.6	+/-13		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	24	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	27.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.45	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-96 WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 28-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	77.2	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	22.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.79	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Loamy sand	-				-	18-NOV-11	21-NOV-11	R2289809
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	29.0	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.49	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-97 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.20	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	28.1	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-97 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
CaCO3 Equivalent	1.68	+/-0.53		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	28.3	+/-3.0		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	19.1	+/-2.9	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	43.7	+/-7.9		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	55.7	+/-9.4		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	49.9	+/-11	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	533	+/-69	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	16.0	+/-4.4		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	30.7	+/-5.9		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	53.8	+/-11		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	8.0	+/-1.4		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.8	+/-2.1		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.20	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	11.6	+/-3.2		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	308	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.25	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.30	+/-0.04		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-98 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.70	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.7	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.61	+/-0.61		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.1	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	94.8	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	4.62	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.55	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-98 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	13.9	+/-3.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	32	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	38.2	+/-9.9		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	32.6	+/-6.3		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	7.4	+/-1.6		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	10.5	+/-1.9		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	6.7	+/-2.3		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.26	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	16.6	+/-3.7		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	32.4	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH In Saturated Paste	5.11	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.28	+/-0.04		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-99 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.30	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.28	+/-0.58		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	95.7	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	3.99	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.33	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.7	+/-1.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	20	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	38.5	+/-10		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	22.0	+/-4.3		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	3.8	+/-1.0		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	6.0	+/-1.1		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.3	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.21	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-99 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	11.5	+/-3.2		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	30.5	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	4.94	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	0.22	+/-0.03		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288695
L1079274-100 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.20	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	0.81	+/-0.56		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.7	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	5.57	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.77	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.0	+/-1.5		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	16	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.0	+/-2.5		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288188
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.6	+/-0.9		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2288089
Potassium (K)	<1.0	-		1.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
Sodium (Na)	4.6	+/-2.0		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2288089
SAR	0.66	-	SAR:M	0.10	SAR	-	17-NOV-11	17-NOV-11	R2288089
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	17-NOV-11	17-NOV-11	R2288089
pH and EC (Saturated Paste)									
% Saturation	27.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288695
pH in Saturated Paste	5.55	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288695
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288695
L1079274-101 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-101 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
Total Organic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	<0.1	-		0.1	%	-	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Silt (0.05mm - 2um)	0.62	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
% Clay (<2um)	0.40	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289809
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289809
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	6.3	+/-2.1		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	13	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	80.3	+/-20		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	31.4	+/-6.1		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.1	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	7.8	+/-1.4		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	8.0	+/-2.4		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.33	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	26.8	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.54	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.33	+/-0.05		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-102 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.2	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	1.48	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.29	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	139	+/-35		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	54.2	+/-10		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	5.5	+/-1.3		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-102 URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Magnesium (Mg)	15.1	+/-2.7		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	9.0	+/-2.6		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.28	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	31.8	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.94	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.54	+/-0.07		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-103 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.19	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	41.1	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	1.59	+/-0.52		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	41.3	+/-4.4		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	49.6	+/-7.1	NSSM	0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	57.2	+/-10		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	72.9	+/-12		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	105	+/-23	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	563	+/-72	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	20.0	+/-5.4		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	19.3	+/-3.7		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	47.3	+/-9.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	6.3	+/-1.1		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.20	-	SAR:DL	0.20	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	19.9	+/-4.0		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	638	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.26	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.33	+/-0.05		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-104 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	1.31	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-104 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	1.3	+/-0.2		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	2.99	+/-0.74		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.0	+/-0.4		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	2.2	+/-0.4		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	92.4	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	7.54	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	<0.10	-		0.10	%	-	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	12.4	+/-3.3		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	44	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.6	+/-2.7		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	8.0	+/-1.6		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	7.7	+/-1.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	2.0	+/-0.5		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.6	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.38	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	9.8	+/-3.0		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	39.0	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.95	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-105 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
Total Organic Carbon	0.80	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282030
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282030
Total Carbon by combustion method									
Total Carbon by Combustion	0.8	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282032
Miscellaneous Parameters									
Cation Exchange Capacity	1.85	+/-0.63		0.80	meq/100g	-8.8%	14-NOV-11	14-NOV-11	R2286529
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.4	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Loss on Ignition @ 375 C	1.4	+/-0.2		1.0	%	0	08-NOV-11	10-NOV-11	R2285768
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	92.8	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	6.83	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.40	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-105 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	08-NOV-11	08-NOV-11	R2283579
Plant Available Phosphorus and Potassium									
Available Phosphate-P	7.9	+/-2.4		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Available Potassium	32	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284181
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.9	+/-1.8		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.4	+/-1.5		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	4.7	+/-1.1		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.0	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.41	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	6.9	+/-2.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	36.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH In Saturated Paste	4.82	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-106 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.26	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	0.98	+/-0.44		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.4	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.59	+/-0.61		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	94.5	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	4.72	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.74	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	24.2	+/-5.9		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	16	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.9	+/-2.2		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	2.5	+/-0.7		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.2	+/-0.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	5.2	+/-2.1		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-106 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	0.90	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	34.2	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.45	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-107 URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 30-SEP-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	89.3	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	10.1	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.61	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	6.9	+/-2.3		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	24.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	6.72	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-108 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.30	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	41.8	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	2.47	+/-0.65		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	42.1	+/-4.4		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	77.7	+/-11	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	53.1	+/-9.6		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	67.7	+/-11		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-108 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	139	+/-31	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	1320	+/-160	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	36.4	+/-9.5		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	97.9	+/-19		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	117	+/-24		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	31.4	+/-5.8		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.5	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.10	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	51.8	+/-8.0		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	772	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH In Saturated Paste	5.39	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.72	+/-0.10		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-109 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.25	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	2.07	+/-0.65		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	90.5	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	8.78	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.69	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	12.4	+/-3.3		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	29	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.2	+/-1.4		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	5.6	+/-1.2		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.2	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	6.1	+/-2.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.70	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-109 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	7.4	+/-2.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	29.5	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.80	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-110 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-BTJ									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.18	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.46	+/-0.60		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	72.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	25.5	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	1.63	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Loamy sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	12.9	+/-3.4		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	22	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.6	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	35.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.88	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-111 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-111 URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	96.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	2.79	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.27	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.5	+/-0.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.1	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	31.8	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	6.61	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-112 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.32	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	38.4	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	2.66	+/-0.68		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	38.8	+/-4.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	90.9	+/-13	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	61.3	+/-11		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	78.2	+/-13		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	178	+/-40	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	1770	+/-220	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	35.7	+/-9.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	109	+/-21		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	123	+/-25		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	28.9	+/-5.3		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	45.4	+/-7.1		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-112 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	685	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.94	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.73	+/-0.10		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-113 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.83	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	0.76	+/-0.42		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.8	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	3.62	+/-0.81		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.4	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	1.4	+/-0.2		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	77.1	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	20.7	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	2.15	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Loamy sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	40.6	+/-9.4		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	43	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	6.0	+/-2.1		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	13.0	+/-2.6		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.2	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	4.9	+/-0.9		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	6.5	+/-2.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.39	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	20.4	+/-4.1		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	35.2	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.82	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.14	+/-0.02		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-114 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.10	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.23	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	0.85	+/-0.42		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-114 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	2.57	+/-0.69		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	91.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	6.71	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	1.41	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	49.9	+/-11		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	<10	-		10	mg/kg	-	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.4	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	3.1	+/-0.8		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.2	+/-0.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	5.9	+/-2.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.91	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	29.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.92	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-115 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	86.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	9.38	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	3.72	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Loamy sand	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	4.1	+/-1.6		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.8	+/-1.4		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	2.5	+/-0.8		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	2.6	+/-0.6		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	7.2	+/-2.3		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-115 URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 01-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
SAR	0.60	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	8.9	+/-3.0		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	37.1	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.16	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.11	+/-0.02		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-116 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.31	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	41.9	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	2.61	+/-0.67		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	42.2	+/-4.5		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	74.1	+/-10	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	65.5	+/-12		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	83.7	+/-14		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	156	+/-35	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	1000	+/-130	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	33.9	+/-8.9		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	72.6	+/-14		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	94.1	+/-19		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	16.4	+/-3.0		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	4.6	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.13	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	34.2	+/-5.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	1000	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.54	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.56	+/-0.08		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-117 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.89	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	0.97	+/-0.44		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	1.0	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282033

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-117 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Miscellaneous Parameters									
Cation Exchange Capacity	4.98	+/-0.97		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.7	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	1.8	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	40.2	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	55.6	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	4.19	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Silt loam	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	5.9	+/-2.0		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	39	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	34.7	+/-9.1		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	23.8	+/-4.6		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	5.8	+/-1.3		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	6.3	+/-1.2		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	14.0	+/-3.3		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.66	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	22.3	+/-4.3		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	36.0	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	4.03	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.26	+/-0.04		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-118 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.16	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.62	+/-0.61		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	92.7	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	5.03	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	2.25	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-118 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2284176
Available Potassium	21	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.6	+/-1.3		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	4.4	+/-1.0		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	1.8	+/-0.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.50	-	SAR:DL	0.50	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	5.1	+/-2.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	31.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.21	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-119 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281967
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281967
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	41.7	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	56.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	1.42	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Silt loam	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	166	+/-42		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	78.5	+/-15		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	3.3	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	11.9	+/-2.1		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	7.2	+/-2.3		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288546
SAR	0.20	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	38.7	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	5.33	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	0.64	+/-0.09		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2288604
L1079274-120 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BXFB									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.23	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-120 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BXFB									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
CaCO3 Equivalent	0.73	+/-0.41		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.22	+/-0.58		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.3	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	6.16	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.53	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.7	+/-1.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	13	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	5.8	+/-2.0		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2288595
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	6.4	+/-1.3		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288546
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
SAR	<0.40	-	SAR:DL	0.40	SAR	-	18-NOV-11	18-NOV-11	R2288546
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288546
pH and EC (Saturated Paste)									
% Saturation	36.0	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2288604
pH in Saturated Paste	6.38	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2288604
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2288604
L1079274-121 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-CG									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	64.4	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	35.0	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.57	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sandy loam	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.5	+/-1.5		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.4	+/-2.8		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	<1.0	-		1.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-121 URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-CG									
Sampled By: JAME / ALANA on 02-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sodium (Na)	5.2	+/-2.1		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.38	-	SAR:M	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	32.4	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	6.52	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.10	+/-0.02		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-122 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.28	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	44.3	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	2.35	+/-0.63		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	44.6	+/-4.7		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	91.1	+/-13	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	66.2	+/-12		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	84.5	+/-14		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	77.5	+/-18	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	953	+/-120	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	31.7	+/-8.3		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	131	+/-25		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	86.2	+/-18		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	16.8	+/-3.0		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	35.4	+/-5.9		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	748	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	6.73	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.66	+/-0.09		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-123 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.12	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	1.80	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	0.96	+/-0.44		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-123 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	1.9	+/-0.2		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	4.25	+/-0.88		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.9	+/-0.5		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	3.4	+/-0.6		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	84.6	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	14.2	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	1.20	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Loamy sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.4	+/-1.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	43	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	18.7	+/-5.1		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	28.7	+/-5.6		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	4.7	+/-1.1		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	10.4	+/-1.9		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	9.1	+/-2.6		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.37	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	17.6	+/-3.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	36.0	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	4.64	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.22	+/-0.03		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-124 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.28	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.47	+/-0.60		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	96.8	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	2.89	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.33	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-124 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	4.0	+/-1.7		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	29	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	484	+/-120	DLM	10	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	181	+/-35		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	12.3	+/-2.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	55.1	+/-10		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	19.8	+/-4.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.33	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	29.9	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.13	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	1.68	+/-0.22		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-125 CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 03-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	81.2	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	17.1	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	1.67	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Loamy sand	-				-	16-NOV-11	21-NOV-11	R2289810
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	66.0	+/-17		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	23.1	+/-4.5		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	5.3	+/-1.2		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	10.8	+/-1.9		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	7.9	+/-2.4		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.34	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	5.7	+/-2.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	31.7	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.34	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.25	+/-0.04		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-126 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-LFH									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.37	+/-0.08		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	43.7	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-126 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-LFH									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic and Organic Carbon									
CaCO3 Equivalent	3.06	+/-0.75		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	44.1	+/-4.7		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	81.8	+/-11	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	68.7	+/-12		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	87.7	+/-15		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	177	+/-39	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	1570	+/-190	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	46.4	+/-12		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	136	+/-26		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	137	+/-28		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	39.5	+/-7.3		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	41.3	+/-6.6		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	968	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.69	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.83	+/-0.11		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-127 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-AE									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.19	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.2	+/-0.06		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.09	+/-0.57		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.9	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Silt (0.05mm - 2um)	0.91	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
% Clay (<2um)	0.19	+/-3.0		0.10	%	0	16-NOV-11	21-NOV-11	R2289810
Texture	Sand	-				-	16-NOV-11	21-NOV-11	R2289810
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-127 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-AE									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Phosphate-P	28.1	+/-6.7		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	34	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	2.7	+/-1.3		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.1	+/-1.5		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	5.5	+/-1.3		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	2.6	+/-0.6		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.30	-	SAR:DL	0.30	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	5.5	+/-2.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	31.2	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.61	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	17-NOV-11	17-NOV-11	R2288800
L1079274-128 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-BM									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.29	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	3.91	+/-0.84		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	64.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	31.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	4.18	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sandy loam	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.8	+/-1.5		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	53	+/-12		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	173	+/-43		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	54.8	+/-11		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	5.3	+/-1.2		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	36.9	+/-6.8		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	13.7	+/-3.2		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.35	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-128 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-BM									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sulfur (as SO4)	18.0	+/-3.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	23.4	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.43	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.71	+/-0.09		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-129 CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-C									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	67.6	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	30.2	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	2.28	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sandy loam	-				-	18-NOV-11	21-NOV-11	R2289770
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	47.6	+/-12		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	40.3	+/-7.8		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	3.4	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	16.1	+/-2.9		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	16.5	+/-3.7		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.56	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	16.8	+/-3.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	20.9	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	7.04	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.42	+/-0.06		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-130 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.23	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	40.1	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	1.94	+/-0.57		0.70	%	+9%	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	40.3	+/-4.3		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	81.5	+/-11	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	51.4	+/-9.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	65.5	+/-11		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	126	+/-28	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-130 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Plant Available Phosphorus and Potassium									
Available Potassium	729	+/-92	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	16.3	+/-4.5		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	61.0	+/-12		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	54.6	+/-11		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	23.7	+/-4.3		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	26.7	+/-4.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	630	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.53	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.48	+/-0.07		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-131 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	0.89	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	0.9	+/-0.1		0.1	%	0	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	1.49	+/-0.60		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.6	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	1.7	+/-0.3		1.0	%	0	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	1.32	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.65	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	9.4	+/-2.7		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	57	+/-12		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	8.8	+/-2.7		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	35.5	+/-6.9		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	12.8	+/-2.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	11.0	+/-2.0		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	4.6	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.17	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	16.1	+/-3.6		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-131 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
% Saturation	42.6	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH In Saturated Paste	4.59	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.24	+/-0.04		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-132 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
Total Organic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2282034
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2282034
Total Carbon by combustion method									
Total Carbon by Combustion	<0.1	-		0.1	%	-	04-NOV-11	04-NOV-11	R2282033
Miscellaneous Parameters									
Cation Exchange Capacity	<0.80	-		0.80	meq/100g	-	18-NOV-11	18-NOV-11	R2288868
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	16-NOV-11	17-NOV-11	R2288614
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.7	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.21	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283979
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.4	+/-1.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Available Potassium	13	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284176
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	39.5	+/-10		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	8.5	+/-1.7		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	3.2	+/-0.9		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	7.5	+/-1.4		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	4.1	+/-2.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.25	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	30.0	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.50	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.17	+/-0.03		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-133 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-133 CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 04-OCT-11									
Matrix: SOIL/ SEDIMENT									
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.9	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	<0.10	-		0.10	%	-	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	1.9	+/-0.7		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	<2.0	-		2.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	Incalculable	-	SAR:INC	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	<5.0	-		5.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	28.8	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	6.55	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	17-NOV-11	17-NOV-11	R2288800
L1079274-134 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.29	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	47.8	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	2.42	+/-0.64		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	48.1	+/-5.1		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	71.0	+/-10	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	71.8	+/-13		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	91.7	+/-16		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	228	+/-50	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	1370	+/-170	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	18.3	+/-5.0		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	44.9	+/-8.7		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	110	+/-22		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	14.2	+/-2.6		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	52.2	+/-8.0		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	703	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800

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Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-134 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
pH and EC (Saturated Paste)									
pH in Saturated Paste	4.21	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.58	+/-0.08		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-135 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	0.48	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	0.5	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	1.08	+/-0.57		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	1.1	+/-0.2		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	1.0	+/-0.2		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	95.9	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	3.81	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.29	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	3.8	+/-1.6		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	35	+/-11		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	25.7	+/-6.8		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.8	+/-2.9		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	9.8	+/-2.1		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	5.8	+/-1.1		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	9.6	+/-2.6		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.54	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	13.9	+/-3.4		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	35.4	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.59	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.20	+/-0.03		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-136 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-OF									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.18	+/-0.06		0.10	%	0	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	32.1	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	1.51	+/-0.51		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									

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Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-136 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-OF									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Carbon by combustion method									
Total Carbon by Combustion	32.3	+/-3.4		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	93.6	+/-13	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
AVAILABLE MOISTURE - 1/3 & 15 BAR									
Available Moisture 1/3 bar	73.3	-		0.1	%	-	04-NOV-11	10-NOV-11	R2284654
Available Moisture 15 bar	46.2	-		0.1	%	-	04-NOV-11	10-NOV-11	R2284654
Organic Matter by LOI at 375 deg C.									
Organic Matter	49.1	+/-8.9		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	62.6	+/-11		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Particle size - Pipette removal OM & CO3									
% Sand (2.0mm - 0.05mm)	51.7	+/-5.0	UMI	0.10	%	0	18-NOV-11	22-NOV-11	R2290333
% Silt (0.05mm - 2um)	41.5	+/-5.0	UMI	0.10	%	0	18-NOV-11	22-NOV-11	R2290333
% Clay (<2um)	6.75	+/-5.0	UMI	0.10	%	0	18-NOV-11	22-NOV-11	R2290333
Texture	Sandy loam	-	UMI			-	18-NOV-11	22-NOV-11	R2290333
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	7.4	+/-2.3	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	243	+/-34	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	78.9	+/-20		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	43.6	+/-8.4		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	12.4	+/-2.6		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	13.2	+/-2.4		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	16.9	+/-3.7		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	351	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	4.44	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.40	+/-0.06		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-137 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.11	+/-0.05		0.10	%	0	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	0.20	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	0.88	+/-0.43		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	1.17	+/-0.58		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	94.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-137 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Particle Size Analysis:Mini-Pipet Method									
% Silt (0.05mm - 2um)	5.03	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.67	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2284192
Available Potassium	20	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	27.8	+/-7.4		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.7	+/-2.9		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	6.0	+/-1.4		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	5.6	+/-1.0		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	10.8	+/-2.8		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.61	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	11.9	+/-3.2		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	28.5	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH In Saturated Paste	5.82	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.20	+/-0.03		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-138 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BTJ									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	1.56	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	0.76	+/-0.42		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	1.6	+/-0.2		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	6.79	+/-1.2		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	2.5	+/-0.5		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	2.8	+/-0.5		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	72.8	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	24.0	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	3.20	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sandy loam	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.1	+/-1.4		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	33	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	26.7	+/-7.1		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-138 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BTJ									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	19.6	+/-3.8		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	5.6	+/-1.3		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	8.1	+/-1.5		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	12.2	+/-3.0		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.58	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	18.0	+/-3.8		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	42.7	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH In Saturated Paste	4.83	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.19	+/-0.03		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-139 CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	93.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	5.44	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	1.29	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	168	+/-42		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	57.9	+/-11		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	5.3	+/-1.2		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	22.3	+/-4.1		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	18.1	+/-3.9		4.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
SAR	0.51	-		0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	7.6	+/-2.9		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	25.2	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	4.80	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.66	+/-0.09		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-140 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	0.32	+/-0.07		0.10	%	0	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	46.8	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	2.64	+/-0.68		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	47.1	+/-5.0		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	112	+/-16	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	67.9	+/-12		1.0	%	0	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	86.7	+/-15		1.0	%	0	15-NOV-11	16-NOV-11	R2287224

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-140 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<10	-	DLM	10	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	134	+/-30	DLM	4.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	1570	+/-190	DLM	20	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	30.3	+/-8.0		2.0	mg/L	0	18-NOV-11	18-NOV-11	R2288843
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	88.4	+/-17		2.0	mg/L	+9%	18-NOV-11	18-NOV-11	R2288804
Potassium (K)	119	+/-24		1.0	mg/L	+6%	18-NOV-11	18-NOV-11	R2288804
Magnesium (Mg)	21.2	+/-3.9		2.0	mg/L	+10%	18-NOV-11	18-NOV-11	R2288804
Sodium (Na)	<4.0	-		4.0	mg/L	-	18-NOV-11	18-NOV-11	R2288804
SAR	<0.10	-	SAR:DL	0.10	SAR	-	18-NOV-11	18-NOV-11	R2288804
Sulfur (as SO4)	39.7	+/-6.4		5.0	mg/L	0	18-NOV-11	18-NOV-11	R2288804
pH and EC (Saturated Paste)									
% Saturation	758	+/-0.8		1.0	%	0	17-NOV-11	17-NOV-11	R2288800
pH in Saturated Paste	5.44	+/-0.06		0.10	pH	0	17-NOV-11	17-NOV-11	R2288800
Conductivity Sat. Paste	0.64	+/-0.09		0.10	dS m-1	0	17-NOV-11	17-NOV-11	R2288800
L1079274-141 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	0.47	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	0.71	+/-0.41		0.70	%	+9%	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	0.5	+/-0.08		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	1.71	+/-0.62	NSSM	0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Particle Size Analysis:Mini-Pipet Methoc									
% Sand (2.0mm - 0.05mm)	98.4	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	1.10	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.50	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	2.6	+/-1.5		2.0	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Available Potassium	28	+/-10		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	143	+/-36		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2287847
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	85.4	+/-17		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2287760
Potassium (K)	31.7	+/-6.5		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2287760
Magnesium (Mg)	15.7	+/-2.8		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2287760

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-141 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
SAR, Cations and SO4 in saturated soil									
Sodium (Na)	7.7	+/-2.4		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2287760
SAR	0.20	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2287760
Sulfur (as SO4)	22.1	+/-4.3		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2287760
pH and EC (Saturated Paste)									
% Saturation	26.5	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2287752
pH in Saturated Paste	4.74	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2287752
Conductivity Sat. Paste	0.69	+/-0.09		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2287752
L1079274-142 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Total Organic Carbon -Inorg & Total C									
Inorganic and Organic Carbon									
Inorganic Carbon	<0.10	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
Total Organic Carbon	0.27	-		0.10	%	-	04-NOV-11	04-NOV-11	R2281679
CaCO3 Equivalent	<0.70	-		0.70	%	-	04-NOV-11	04-NOV-11	R2281679
Total Carbon by combustion method									
Total Carbon by Combustion	0.3	+/-0.07		0.1	%	0	03-NOV-11	03-NOV-11	R2281678
Miscellaneous Parameters									
Cation Exchange Capacity	0.95	+/-0.56		0.80	meq/100g	-8.8%	18-NOV-11	18-NOV-11	R2288869
Organic Matter by LOI at 375 deg C.									
Organic Matter	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Loss on Ignition @ 375 C	<1.0	-		1.0	%	-	15-NOV-11	16-NOV-11	R2287224
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	99.1	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	0.46	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.41	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Available N, P and K									
Available Nitrate-N									
Available Nitrate-N	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2283967
Plant Available Phosphorus and Potassium									
Available Phosphate-P	<2.0	-		2.0	mg/kg	-	09-NOV-11	09-NOV-11	R2284192
Available Potassium	12	+/-9		10	mg/kg	0	09-NOV-11	09-NOV-11	R2284192
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	3.4	+/-1.5		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2287847
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	7.1	+/-1.5		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2287760
Potassium (K)	2.8	+/-0.8		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2287760
Magnesium (Mg)	2.5	+/-0.6		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2287760
Sodium (Na)	<4.0	-		4.0	mg/L	-	17-NOV-11	17-NOV-11	R2287760
SAR	<0.30	-	SAR:DL	0.30	SAR	-	17-NOV-11	17-NOV-11	R2287760
Sulfur (as SO4)	6.4	+/-2.8		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2287760
pH and EC (Saturated Paste)									
% Saturation	31.9	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2287752
pH in Saturated Paste	5.03	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2287752
Conductivity Sat. Paste	<0.10	-		0.10	dS m-1	-	16-NOV-11	16-NOV-11	R2287752
L1079274-143 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	MU	Qualifier*	D.L.	Units	Bias	Extracted	Analyzed	Batch
L1079274-143 CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-C									
Sampled By: JAME / ALANA on 05-OCT-11									
Matrix: SOIL/ SEDIMENT									
Inorganic Carbon / Calcium Carbonate									
Inorganic Carbon	<0.10	-		0.10	%	-	05-NOV-11	05-NOV-11	R2281969
CaCO3 Equivalent	<0.70	-		0.70	%	-	05-NOV-11	05-NOV-11	R2281969
Particle Size Analysis:Mini-Pipet Method									
% Sand (2.0mm - 0.05mm)	98.3	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Silt (0.05mm - 2um)	1.17	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
% Clay (<2um)	0.53	+/-3.0		0.10	%	0	18-NOV-11	21-NOV-11	R2289770
Texture	Sand	-				-	18-NOV-11	21-NOV-11	R2289770
Detailed Salinity									
Chloride (Cl) (Saturated Paste)									
Chloride (Cl)	12.9	+/-3.7		2.0	mg/L	0	17-NOV-11	17-NOV-11	R2287847
SAR, Cations and SO4 in saturated soil									
Calcium (Ca)	14.3	+/-2.8		2.0	mg/L	+9%	17-NOV-11	17-NOV-11	R2287760
Potassium (K)	4.2	+/-1.0		1.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2287760
Magnesium (Mg)	3.7	+/-0.7		2.0	mg/L	+10%	17-NOV-11	17-NOV-11	R2287760
Sodium (Na)	5.3	+/-2.1		4.0	mg/L	+6%	17-NOV-11	17-NOV-11	R2287760
SAR	0.32	-		0.10	SAR	-	17-NOV-11	17-NOV-11	R2287760
Sulfur (as SO4)	8.8	+/-2.9		5.0	mg/L	0	17-NOV-11	17-NOV-11	R2287760
pH and EC (Saturated Paste)									
% Saturation	27.6	+/-0.8		1.0	%	0	16-NOV-11	16-NOV-11	R2287752
pH in Saturated Paste	5.26	+/-0.06		0.10	pH	0	16-NOV-11	16-NOV-11	R2287752
Conductivity Sat. Paste	0.13	+/-0.02		0.10	dS m-1	0	16-NOV-11	16-NOV-11	R2287752

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

Reference Information

QC Samples with Qualifiers & Comments:

QC Type Description	Parameter	Qualifier	Applies to Sample Number(s)
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Calcium (Ca)	DLA	
Internal Reference Material	Magnesium (Mg)	DLA	
Internal Reference Material	Potassium (K)	DLA	
Internal Reference Material	Sodium (Na)	DLA	
Internal Reference Material	Sulfur (as SO4)	DLA	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Internal Reference Material	Chloride (Cl)	DLM	
Duplicate	% Clay (<2um)	UMI	
Duplicate	% Sand (2.0mm - 0.05mm)	UMI	
Duplicate	% Silt (0.05mm - 2um)	UMI	

Sample Parameter Qualifier Key:

Qualifier	Description
DLA	Detection Limit Adjusted For required dilution
DLM	Detection Limit Adjusted For Sample Matrix Effects

Reference Information

SAR:DL	SAR cannot be calculated due to undetectable Na. Detection Limit represents the maximum possible value.
SAR:INC	SAR is incalculable due to Ca and Mg below detection limit.
SAR:M	Reported SAR represents a maximum value. Actual SAR would be lower if all cations were detectable.
UMI	Unreliable: Matrix interference.

Test Method References:

ALS Test Code	Matrix	Test Description	Preparation Method Reference	Method Reference**
C-INORG-ORG-SK	Soil	Inorganic and Organic Carbon		SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO2 loss is proportional to the carbonate content of the soil.

Reference:
Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-INORG-SK	Soil	Inorganic Carbon / Calcium Carbonate		SSSA (1996) P455-456

When carbonates are decomposed with acid in an open system, carbon dioxide is released to the atmosphere. The decrease in sample weight resulting from CO2 loss is proportional to the carbonate content of the soil.

Reference:
Loeppert, R.H. and Suarez, D.L. 1996. Gravimetric Method for Loss of Carbon Dioxide. P. 455-456 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

C-TOT-LECO-SK	Soil	Total Carbon by combustion method		SSSA (1996) P. 973-974

The sample is introduced into a quartz tube where it undergoes combustion at 900 C in the presence of oxygen.
Combustion gases are first carried through a catalyst bed in the bottom of the combustion tube, where oxidation is completed and then carried through a reducing agent (copper), where the nitrogen oxides are reduced to elemental nitrogen.
This mixture of N2, CO2, and H2O is then passed through an absorber column containing magnesium perchlorate to remove water. N2 and CO2 gases are then separated in a gas chromatographic column and detected by thermal conductivity.

Reference:
Nelson, D.W. and Sommers, L.E. 1996. Total Carbon, organic carbon and organic matter. P. 973-974 In: J.M. Bartels et al. (ed.) Methods of soil analysis: Part 3 Chemical methods. (3rd ed.) ASA and SSSA, Madison, WI. Book series no. 5

CEC-SK	Soil	Cation Exchange Capacity (NH4OAC Extn)		CSSS(1978) 3.321/Comm Soil Sci 17(7)

Cation Exchange Capacity
This method involves saturation of the soil cation exchange sites with ammonium. Excess ammonium is removed from the soil with alcohol. Ammonium on the cation exchange site is then removed by leaching with NaCl and determined by autoanalyzer. This value is used to estimate CEC.

Reference: M.R. Carter (ed.). Soil Sampling and Methods of Analysis. Canadian Society of Soil Science. Lewis Publishers Ann Arbor, MI, method 19.4

CL-SAR-SK	Soil	Chloride (Cl) (Saturated Paste)	CSSS (1993) 18.2.2	CSSS(1993) 18.2.2/APHA 4500-CL E

Chloride in a saturated soil extract is determined colorimetrically by auto-analyzer.

MOISTURE-AVAIL-SK	Soil	AVAILABLE MOISTURE - 1/3 & 15 BAR		SSSA (1986) Method 26-6

Water retention at 1/3 and 15 bar using the pressure plate method.

NO3-AVAIL-SK	Soil	Available Nitrate-N		Method = Alberta Ag (1988)

Available Nitrate and Nitrite are extracted from the soil using a dilute calcium chloride solution.
Nitrate is quantitatively reduced to nitrite by passage of the sample through a copperized cadmium column. The nitrite (reduced nitrate plus original nitrite) is then determined by diazotizing with sulfanilamide followed by coupling with N-(1-naphthyl) ethylenediamine dihydrochloride. The resulting water soluble dye has a magenta color which is measured at colorimetrically at 520nm.

Reference:
Recommended Methods of Soil Analysis for Canadian Prairie Agricultural Soils. Alberta Agriculture (1988) p. 19 and 28

Reference Information

Test Method References:

ALS Test Code	Matrix	Test Description	Preparation Method Reference	Method Reference**

The dry-ash method involves the removal of organic matter by combustion at 375 degrees C for a minimum of 16 hours. Samples are dried prior to combustion.

Reference: McKeague, J.A. Soil Sampling and Methods of Analysis. Can. Soc. Soil Sci.(1978) method 4.23

PO4/K-AVAIL-SK	Soil	Plant Available Phosphorus and Potassium		Comm. Soil Sci. Plant Anal, 25 (5&6)
PSA-1-SK	Soil	Particle Size Analysis:Mini-Pipet Method		SSIR-51 Method 3.2.1

Dry, < 2 mm soil is treated with sodium hexametaphosphate to ensure complete dispersion of primary soil particles. The homogenized suspension is allowed to settle in accordance with Stoke's Law so that only clay particles remain in suspension.To determine the clay fraction, an aliquot of the clay suspension is removed, then dried and weighed. The sand fraction is determined by wet sieving the remaining suspension, then drying and weighing the sand retained on the sieve. The silt fraction is determined by calculation where % Silt = 100 - (%Sand+%Clay)

Reference:
Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.

Kalra, Y.P., Maynard, D.G. 1991. Methods manual for forest soil and plant analysis. Forestry Canada. p. 42-45.

PSA-3-SK	Soil	Particle size - Pipette removal OM & CO3		Forestry Canada (1991) p. 46-53

Dry, < 2 mm soil is treated hydrochloric acid top remove carbonates, then hydrogen peroxide to remove organic matter. The remaining soil is treated with sodium hexametaphosphate to ensure complete dispersion of primary soil particles. The homogenized suspension is allowed to settle in accordance with Stoke's Law so that only clay particles remain in suspension.To determine the clay fraction, an aliquot of the clay suspension is removed, then dried and weighed. The sand fraction is determined by wet sieving the remaining suspension, then drying and weighing the sand retained on the sieve. The silt fraction is determined by calculation where % Silt = 100 - (%Sand+%Clay)

Reference:
Burt, R. (2009). Soil Survey Field and Laboratory Methods Manual. Soil Survey Investigations Report No. 5. Method 3.2.1.2.2. United States Department of Agriculture Natural Resources Conservation Service.

SALINITY-INTCHECK-SK	Soil			CSSS 18.4-Calculation
SAR-CALC-SO4-SK	Soil	SAR, Cations and SO4 in saturated soil	CSSS (1993) 18.2.2	APHA 3120B

Deionized water is added to the soil until the soil is saturated, but not over saturated (ie. no free standing water). The paste is allowed to stand overnight or a minimum of four hours.
After equilibration, an extract is obtained by vacuum filtration. Individual cations in the extract are determined by ICP-OES. Reported results for sulfate may be slightly elevated on highly organic samples.

Reference:
Carter, Martin R., Soil Sampling and Methods of Analysis, Can Soc. Soil Sci. p.162-164.

SAT/PH/EC-SK	Soil	pH and EC (Saturated Paste)	CSSS (1993) 18.2.2	CSSS 18.2.2/CSSC 3.14/CSSS 18.3.1

pH of a saturated soil paste is measured using a pH meter. After equilibration, an extract is obtained by vacuum filtration with conductivity of the extract measured by a conductivity meter.

SPECIAL REQUEST-SK	Misc.	Special Request Sask Lab		SEE SUBLET LAB RESULTS

** The indicated Method Reference is the closest nationally or internationally recognized reference for the applicable ALS test method. ALS methods may incorporate modifications from the specified reference 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
SK	ALS ENVIRONMENTAL - SASKATOON, SASKATCHEWAN, CANADA

Chain of Custody Numbers:

L1079274

Reference Information

GLOSSARY OF REPORT TERMS

Surr - 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-adjusted weight
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.
MU: Measurement Uncertainty. The reported uncertainty is an expanded uncertainty calculated using a coverage factor of 2 which gives a level of confidence of approximately 95%.
Bias: The reported method bias is the average long term deviation from the target value for a long term reference or control sample, measured in percent. Zero values indicate no detectable method bias.

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.

Sample Receipt Confirmation

Report Distribution:

Company Name: CANNORTH ENVIRONMENTAL SERVICES
Contact: CASSANDRA REES
Address: 4 130 ROBIN CRES., SASKATOON, SK, S7L 6M7
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Phone: 306-652-4432
Fax: 306-652-4431
Invoice Email: --
Project #: N/A
Account #: 18103

Client Information:

Job Reference #: 1489
Project PO #:
Legal Site Description: N/A
Quote #: Q29415
Date Sampled: 21-SEP-11
Date Received: 01-NOV-11
Sampled By: JAME / ALANA
Chain Of Custody: L1079274

Workorder Summary:

Lab Work Order #: **L1079274**
Estimated completion date: 22-NOV-11
143 Samples received at ALS in **SASKATOON**
Client Job #: 1489
Account Manager: Brian Morgan
Estimated sample disposal date: 22-DEC-11

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-1	STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-2	STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-3	STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-4	STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-5	STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-6	STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-7	STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-8	STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM1	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-9	STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM2	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-10	STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	21-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-11	STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-12	STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-13	STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-14	STONY RAPIDS-STATION 3-SAMPLE	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-14	STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SEDIMENT
L1079274-15	STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-16	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-17	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-18	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-19	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AB	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-20	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-21	STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-22	STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-23	STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-24	STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-25	STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	26-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-26	BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-27	BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-28	BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-29	BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-30	BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-31	BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-32	BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-33	BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFCCJ	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-34	BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	25-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-35	BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-36	BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-37	BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM1	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-38	BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM2	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-39	BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-40	BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-41	BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-42	BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-43	BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-44	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-45	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-46	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM1	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-47	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM2	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-48	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C1	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-49	BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C2	22-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-50	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-51	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-52	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AH	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-53	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-54	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-55	FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-56	FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-57	FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-58	FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-59	FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C1	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-60	FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C2	23-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-61	FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-62	FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-63	FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AH	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-64	FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-65	FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-66	FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-67	FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-68	FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM1	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-69	FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM2	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-70	FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-71	FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-72	FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-73	FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AB	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-74	FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-75	FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	24-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-76	WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-77	WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-78	WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BFJ	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-79	WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-80	WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-81	WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-82	WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFJ	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-83	WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-84	WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-85	WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-86	WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BFJ	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-87	WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	27-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-88	WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-89	WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AHE	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-90	WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-91	WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-92	WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-93	WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-94	WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-95	WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-96	WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	28-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-97	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-98	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AHE	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-99	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-100	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-101	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-102	URANIUM CITY -STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-103	URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-104	URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AHE	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-105	URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-106	URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-107	URANIUM CITY -STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	30-SEP-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-108	URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-109	URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-110	URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-BTJ	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-111	URANIUM CITY -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-112	URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-113	URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-114	URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-115	URANIUM CITY -STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	01-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-116	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-117	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-118	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-119	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-120	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BXFB	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-121	URANIUM CITY -STATION 5-SAMPLE 1-SOIL-BRUNISOL-CG	02-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-122	CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH	03-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-123	CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	03-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-124	CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM	03-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-125	CAMSELL PORTAGE -STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	03-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L1079274-126	CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-LFH	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-127	CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-AE	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-128	CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-BM	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-129	CAMSELL PORTAGE -STATION 2-SAMPLE 1-SOIL-REGOSOL-C	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-130	CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-131	CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-132	CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-133	CAMSELL PORTAGE -STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	04-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-134	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-135	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-136	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-OF	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-137	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-138	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-BTJ	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-139	CAMSELL PORTAGE -STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-140	CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-141	CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-142	CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT
L1079274-143	CAMSELL PORTAGE -STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	05-OCT-11 00:00	01-NOV-11 09:58	22-NOV-11		SOIL/ SEDIMENT

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1	✓						✓	✓	✓	✓	
STONY RAPIDS-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2	✓						✓	✓	✓	✓	
STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AB		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
STONY RAPIDS-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFCCJ		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C							✓	✓	✓	✓	
BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C1	✓						✓	✓	✓	✓	
BLACK LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C2	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C1	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AH		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C2	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C1	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C2	✓						✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AH	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM1		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BM2		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AB		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
FOND DU LAC-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AHE		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB		✓	✓		✓	✓	✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
WOLLASTON LAKE-STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-AHE		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM1	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM2	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 2-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
URANIUM CITY - STATION 2-SAMPLE 1-SOIL-BRUNISOL-AHE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 2-SAMPLE 1-SOIL-BRUNISOL-AE	✓	✓	✓		✓	✓	✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
URANIUM CITY - STATION 2-SAMPLE 1-SOIL-BRUNISOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 2-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
URANIUM CITY - STATION 3-SAMPLE 1-SOIL-BRUNISOL-AE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 3-SAMPLE 1-SOIL-BRUNISOL-BTJ	✓	✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
URANIUM CITY - STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 4-SAMPLE 1-SOIL-BRUNISOL-BFJ		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-BXFB		✓	✓		✓	✓	✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
URANIUM CITY - STATION 5-SAMPLE 1-SOIL-BRUNISOL-CG	✓						✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 1-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
CAMSELL PORTAGE - STATION 1-SAMPLE 1-SOIL-BRUNISOL-AE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 1-SAMPLE 1-SOIL-BRUNISOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 1-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 2-SAMPLE 1-SOIL-REGOSOL-LFH		✓	✓		✓	✓	✓		✓	✓	
CAMSELL PORTAGE - STATION 2-SAMPLE 1-SOIL-REGOSOL-AE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 2-SAMPLE 1-SOIL-REGOSOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 2-SAMPLE 1-SOIL-REGOSOL-C	✓						✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 3-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
CAMSELL PORTAGE - STATION 3-SAMPLE 1-SOIL-BRUNISOL-AHE	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 3-SAMPLE 1-SOIL-BRUNISOL-BM	✓	✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 3-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	

Analysis Requested :

	Inorganic Carbon / Calcium Carbonate	Total Organic Carbon -Inorg & Total C	Cation Exchange Capacity [NH4OAC Extn]	AVAILABLE MOISTURE - 1/3 & 15 BAR	Available N, P and K	Organic Matter by LOI at 375 deg C.	Dry and Grind	Particle Size Analysis:Mini-Pipet Method	Detailed Salinity	Sample Handling and Disposal Fee	Special Request Sask Lab
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-OF		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-AEB		✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-BTJ		✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 4-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 5-SAMPLE 1-SOIL-BRUNISOL-LFH		✓	✓		✓	✓	✓		✓	✓	
CAMSELL PORTAGE - STATION 5-SAMPLE 1-SOIL-BRUNISOL-AE		✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 5-SAMPLE 1-SOIL-BRUNISOL-BM		✓	✓		✓	✓	✓	✓	✓	✓	
CAMSELL PORTAGE - STATION 5-SAMPLE 1-SOIL-BRUNISOL-C	✓						✓	✓	✓	✓	

Hold Time Exceedences: The following samples have exceeded recommended holding times prior to sample receipt.

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124 L1079274-4, 5, 10, 15,	28 days	24-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
Inorganic Carbon / Calcium Carbona	21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	24-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	27-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	01-OCT-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	01-OCT-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	25-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	23-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	28-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	28-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16,	28 days	02-OCT-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124			
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	26-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	27-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124,	14 days	27-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	125, 127, 128, 129, 131, 132, 133, 139, 143			
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	21-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	26-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	22-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80,	14 days	02-OCT-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142			
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	30-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	30-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	02-OCT-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95,	14 days	03-OCT-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142			
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	03-OCT-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	03-OCT-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	04-OCT-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108,	14 days	21-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142			
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	22-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	28-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	05-OCT-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101,	28 days	21-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124			
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	25-SEP-11	01-NOV-11
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	23-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	24-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38,	28 days	01-OCT-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124			
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	04-OCT-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142	14 days	05-OCT-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64,	28 days	25-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124			
Inorganic Carbon / Calcium Carbona	L1079274-4, 5, 10, 15, 21, 25, 30, 34, 43, 48, 49, 51, 55, 57, 58, 59, 60, 62, 63, 64, 65, 70, 75, 79, 83, 87, 92, 96, 100, 101, 102, 104, 105, 106, 107, 109, 110, 111, 115, 119, 121, 123, 124, 125, 127, 128, 129, 131, 132, 133, 139, 143	14 days	26-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	22-SEP-11	01-NOV-11
Organic Matter by LOI at 375 deg C.	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46, 47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124	28 days	23-SEP-11	01-NOV-11
Inorganic and Organic Carbon	L1079274-1, 2, 3, 6, 7, 8, 9, 11, 12, 13, 14, 16, 17, 18, 19, 20, 22, 23, 24, 26, 27, 28, 29, 31, 32, 33, 35, 36, 37, 38, 40, 41, 42, 44, 45, 46,	14 days	30-SEP-11	01-NOV-11

Hold Time Exceedences:

Analysis Requested	Lab Sample ID	Recommended Hold Time	Date Sampled	Date Received
	47, 50, 52, 53, 54, 56, 57, 58, 61, 62, 63, 64, 66, 67, 68, 69, 71, 72, 73, 74, 76, 77, 78, 80, 81, 82, 84, 85, 86, 88, 89, 90, 91, 93, 94, 95, 97, 98, 99, 100, 101, 103, 104, 105, 106, 108, 109, 110, 112, 113, 114, 116, 117, 118, 120, 122, 123, 124, 126, 127, 128, 130, 131, 132, 134, 135, 136, 137, 138, 140, 141, 142			

Sample Integrity Observations:

No observations were identified for this work order submission.

ALS Group strives to deliver on-time results to our clients at all times. However, there are times when due to capacity issues or other unforeseen circumstances we are unable to meet our expected turnaround times. The information above is related to a recent workorder you have submitted to our laboratory. In the event that you have an inquiry, please refer to the Lab Work Order # when calling your Account Manager.

LIST OF TABLES

APPENDIX B, TABLE 1

Water chemistry QA/QC results for the EARMP technical program, fall 2011.

Analyte[1]	Sample	Duplicate Sample	MDL	RPD[2]	Field Blank	Trip Blank
Inorganic Ions						
Bicarbonate	21	17	1	21.1	<1	<1
Calcium	3.4	3.3	0.1	3.0	<0.1	<0.1
Carbonate	<1	<1	1	0.0	<1	<1
Chloride	0.3	0.2	0.1	**40.0**	<0.1	<0.1
Hydroxide	<1	<1	1	0.0	<1	<1
Magnesium	0.9	0.8	0.1	11.8	<0.1	<0.1
Potassium	0.6	0.6	0.1	0.0	<0.1	<0.1
Sodium	1.4	1.3	0.1	7.4	<0.1	<0.1
Sulfate	4.4	4	0.2	9.5	<0.2	<0.2
Metals						
Aluminum	0.012	0.0086	0.0005	33.0	<0.0005	<0.0005
Barium	0.0046	0.0047	0.0005	2.2	<0.0005	<0.0005
Boron	<0.01	<0.01	0.01	0.0	<0.01	<0.01
Cadmium	0.00001	0.00001	0.00001	0.0	**0.00001**	**0.00002**
Chromium	<0.0005	<0.0005	0.0005	0.0	<0.0005	<0.0005
Copper	<0.0002	<0.0002	0.0002	0.0	<0.0002	<0.0002
Iron	0.03	0.032	0.0005	6.5	<0.0005	<0.0005
Lead	<0.0001	0.0002	0.0001	**66.7**	<0.0001	0.0001
Manganese	0.0064	0.0066	0.0005	3.1	<0.0005	<0.0005
Mercury (ug/L)	<0.01	<0.01	0.01	0.0	<0.01	<0.01
Molybdenum	0.0012	0.0012	0.0001	0.0	<0.0001	<0.0001
Nickel	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001
Selenium	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001
Silver	<0.00005	<0.00005	0.00005	0.0	<0.00005	<0.00005
Thallium	<0.0002	<0.0002	0.0002	0.0	<0.0002	<0.0002
Tin	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001
Titanium	<0.0002	<0.0002	0.0002	0.0	<0.0002	<0.0002
Uranium (ug/L)	<0.1	<0.1	0.1	0.0	<0.1	<0.1
Zinc	<0.0005	<0.0005	0.0005	0.0	<0.0005	<0.0005
Nitrients						
Ammonia as nitrogen	0.01	<0.01	0.01	0.0	<0.01	<0.01
Nitrate	<0.04	<0.04	0.04	0.0	<0.04	<0.04
Organic carbon	2.9	2.8	0.2	3.5	<0.2	<0.2
Phosphorus	<0.01	<0.01	0.01	0.0	<0.01	<0.01
Total Kjeldahl nitrogen	0.15	0.17	0.05	12.5	**0.06**	**0.05**
Total nitrogen	0.15	0.17	0.05	12.5	**0.06**	**0.05**
Physical Properties						
P. alkalinity	<1	<1	1	0.0	<1	<1
pH (pH units)	7.18	7.1	0.07	1.1	5.38	5.36
Specific conductivity (µS/L)	36	35	1	2.8	<1	<1
Sum of ions	32	27	1	16.9	<1	<1
Total alkalinity	17	14	1	19.4	<1	<1
Total dissolved solids	30	30	1	0.0	<1	**2**
Total hardness	12	12	1	0.0	<1	<1

APPENDIX B, TABLE 1

Water chemistry QA/QC results for the EARMP technical program, fall 2011.

Analyte[1]	Sample	Duplicate Sample	MDL	RPD[2]	Field Blank	Trip Blank
Total suspended solids	<1	<1	1	0.0	<1	<1
Turbidity (NTU)	0.5	0.5	0.1	0.0	<0.1	<0.1
Radionuclides						
Lead-210 (Bq/L)	<0.02	<0.02	0.02	0.0	<0.02	<0.02
Polonium-210 (Bq/L)	<0.005	<0.005	0.005	0.0	<0.005	<0.005
Radium-226 (Bq/L)	<0.005	<0.005	0.005	0.0	<0.005	<0.005
Thorium-230 (Bq/L)	<0.01	<0.01	0.01	0.0	<0.01	<0.01
Trace Elements						
Antimony	<0.0002	<0.0002	0.0002	0.0	<0.0002	<0.0002
Arsenic (ug/L)	<0.1	0.2	0.1	**66.7**	<0.1	<0.1
Beryllium	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001
Cobalt	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001
Fluoride	0.06	0.06	0.01	0.0	**0.01**	<0.01
Strontium	0.012	0.012	0.0005	0.0	<0.0005	<0.0005
Vanadium	<0.0001	<0.0001	0.0001	0.0	<0.0001	<0.0001

[1]All values are in mg/L, unless specified otherwise.

[2]RPD = ABS((Duplicate-Sample)/(Duplicate+Sample)/2*100)

Bolded RPD values exceed or are equal to 40%; bolded blank values are those exceeding the detection limit.

APPENDIX B, TABLE 2

Sediment chemistry QA/QC results for the EARMP technical program, fall 2011.

Analyte[1]	Cochrane River			Crackingstone Inlet			Ellis Bay			Waterbury Lake			MDL[3]
	5	5D	RPD[2]	1	1D	RPD[2]	3	3D	RPD[2]	4	4D	RPD[2]	
Metals													
Aluminum	12100	11900	1.7	8600	7700	11.0	20300	21600	6.2	2300	2400	4.3	20
Barium	82	80	2.5	55	48	13.6	270	240	11.8	24	28	15.4	0.5
Boron	6	5	18.2	8	7	13.3	34	36	5.7	2	1	**66.7**	1
Cadmium	0.3	0.4	28.6	<0.1	<0.1	0.0	0.4	0.3	28.6	<0.1	<0.1	0.0	0.1
Chromium	23	22	4.4	17	15	12.5	30	32	6.5	3.5	4.5	25.0	0.5
Copper	7.8	7.7	1.3	3.6	3.2	11.8	21	23	9.1	0.7	1	35.3	0.5
Iron	20800	19900	4.4	10600	9900	6.8	29300	25100	15.4	2200	2100	4.7	20
Lead	9.3	9.3	0.0	4.4	4.2	4.7	7.8	8.4	7.4	2.4	2	18.2	0.1
Manganese	280	240	15.4	220	200	9.5	1600	1000	**46.2**	200	220	9.5	20
Molybdenum	5.6	4.9	13.3	0.5	0.5	0.0	2	1.7	16.2	0.8	0.9	11.8	0.1
Nickel	11	11	0.0	6.6	6.3	4.7	22	22	0.0	1.3	1.7	26.7	0.1
Selenium	0.5	0.6	18.2	0.8	0.7	13.3	0.6	0.7	15.4	0.2	0.2	0.0	0.1
Silver	<0.1	<0.1	0.0	<0.1	<0.1	0.0	<0.1	<0.1	0.0	<0.1	<0.1	0.0	0.1
Thallium	<0.2	<0.2	0.0	<0.2	<0.2	0.0	<0.2	<0.2	0.0	<0.2	<0.2	0.0	0.2
Tin	0.8	0.7	13.3	0.4	0.4	0.0	0.8	0.9	11.8	0.3	0.2	**40.0**	0.1
Titanium	920	880	4.4	720	650	10.2	1200	1200	0.0	140	170	19.4	20
Uranium	4.3	4.2	2.4	38	32	17.1	8.7	9.5	8.8	0.2	0.2	0.0	0.1
Zinc	41	41	0.0	15	19	23.5	46	48	4.3	7.9	13	**48.8**	0.5
Physical Properties													
LOI (%)	16.41	16.95	3.2	2.46	2.26	8.5	16.84	16.2	3.9	3.12	6.41	**69.0**	0.05
Moisture (%)	92.14	92.5	0.4	43.06	40.63	5.8	87.53	86.54	1.1	75.58	81.74	7.8	0.01
Radionuclides													
Lead-210 (Bq/g)	0.35	0.36	2.8	0.17	0.12	34.5	0.26	0.28	7.4	0.06	<0.04	**40.0**	0.04
Polonium-210 (Bq/g)	0.37	0.33	11.4	0.14	0.12	15.4	0.26	0.27	3.8	0.06	0.06	0.0	0.01
Radium-226 (Bq/g)	<0.01	<0.01	0.0	0.09	0.06	**40.0**	0.09	0.08	11.8	0.02	<0.01	**66.7**	0.01
Thorium-230 (Bq/g)	<0.02	<0.02	0.0	5	4.1	19.8	0.05	0.11	**75.0**	<0.02	<0.02	0.0	0.02
Trace Elements													
Antimony	<0.2	<0.2	0.0	<0.2	<0.2	0.0	0.3	0.3	0.0	0.4	<0.2	**66.7**	0.2
Arsenic	2.1	2	4.9	2.6	2.7	3.8	7.5	5.7	27.3	0.7	0.8	13.3	0.1
Beryllium	0.6	0.6	0.0	0.3	0.3	0.0	0.7	0.8	13.3	<0.1	<0.1	0.0	0.1
Cobalt	3.4	3.3	3.0	2.7	2.5	7.7	6	6.1	1.7	0.6	0.8	28.6	0.2
Strontium	20	19	5.1	30	29	3.4	82	88	7.1	17	15	12.5	0.5
Vanadium	26	25	3.9	36	33	8.7	35	37	5.6	5.2	6.3	19.1	0.1

[1]All values are in mg/L, unless specified otherwise.

[2]RPD = ABS((Duplicate-Sample)/(Duplicate+Sample)/2*100)

[3]MDL = Method detection limit.

Bolded RPD values exceed or are equal to 40%.

APPENDIX C

COMMUNITY PROGRAM DETAILED DATA TABLES

LIST OF TABLES

APPENDIX C, TABLE 1

Water chemistry results for the EARMP community program, fall 2011.

Analyte[1]	Black Lake	Camsell Portage	Fond du Lac	Stony Rapids	Uranium City	Wolaston Lake	Guidelines	
	Black Lake	Ellis Bay, Lake Athabasca	Fond du Lac River	Fond du Lac River	Fredette River	Welcome Bay, Wollaston Lake	SSWQO[2]	CWQG[3]
Inorganic Ions								
Bicarbonate	20	35	18	21	63	17		
Calcium	3.5	6.9	3.7	3.4	15	3.4		
Carbonate	<1	<1	<1	<1	<1	<1		
Chloride	3.6	3.1	2.8	3.2	1.5	0.4		
Hydroxide	<1	<1	<1	<1	<1	<1		
Magnesium	1.3	2.1	1.3	1.1	2.9	1.1		
Potassium	0.8	0.9	0.8	0.8	0.9	0.7		
Sodium	1.8	2.5	1.6	1.7	1.9	1.4		
Sulfate	1.4	3.6	1.5	1.4	4.5	4		
Metals								
Aluminum	0.002	0.0016	0.014	0.018	0.0051	0.0047	0.005-0.1[1]	0.005-0.1[1]
Barium	0.0044	0.01	0.0051	0.0046	0.032	0.0041		
Boron	0.01	<0.01	0.01	0.01	<0.01	<0.01	-	1.5[8,9]
Cadmium	0.00001	0.00001	0.00002	0.00002	0.00001	0.00001	0.000017-0.0001[2]	0.000017-0.0001[7]
Chromium	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.001	0.001
Copper	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.002-0.004[3]	0.002-0.004[3]
Iron	0.026	0.0049	0.023	0.074	0.031	0.014	0.3	0.3
Lead	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.001-0.007[5]	0.001-0.007[5]
Manganese	0.036	0.0008	0.003	0.027	0.014	0.0047		
Mercury (µg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.026	0.026
Molybdenum	0.0002	0.0002	0.0001	0.0002	0.0004	0.0012	-	0.073
Nickel	0.0002	0.0002	0.0002	0.0002	0.0001	0.0001	0.025-0.15[6]	0.025-0.15[6]
Selenium	<0.0001	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	0.001	0.001
Silver	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	0.0001	0.0001
Thallium	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	-	0.0008
Tin	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Titanium	<0.0002	<0.0002	0.0008	0.0016	0.0003	<0.0002		
Uranium (µg/L)	<0.1	<0.1	<0.1	<0.1	3.5	<0.1	15	15[10,11]
Zinc	0.0018	<0.0005	<0.0005	<0.0005	0.0014	<0.0005	0.03	0.03

APPENDIX C, TABLE 1

Water chemistry results for the EARMP community program, fall 2011.

Analyte[1]	Black Lake	Camsell Portage	Fond du Lac	Stony Rapids	Uranium City	Wolaston Lake	Guidelines	
	Black Lake	Ellis Bay, Lake Athabasca	Fond du Lac River	Fond du Lac River	Fredette River	Welcome Bay, Wollaston Lake	SSWQO[2]	CWQG[3]
Nutrients								
Ammonia as nitrogen	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	-	0.019
Nitrate	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	-	13
Organic carbon	2.5	2.8	2.7	2.7	7.4	2.5		
Phosphorus	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Total Kjeldahl nitrogen	0.27	0.23	0.26	0.28	0.41	0.28		
Total nitrogen	0.27	0.23	0.26	0.28	0.41	0.28		
Physical Properties								
P. alkalinity	<1	<1	<1	<1	<1	<1		
pH (pH units)	7.12	7.46	7.22	7.3	7.75	7.1	-	6.5-9.0
Specific conductivity (µS/cm)	40	66	39	39	114	34		
Sum of ions	32	54	30	33	90	28		
Total alkalinity	16	29	15	17	52	14		
Total dissolved solids	30	40	28	32	72	24		
Total hardness	14	26	14	13	49	13		
Total suspended solids	<1	<1	<1	5	2	<1		
Turbidity (NTU)	0.6	0.3	1	1.3	0.3	0.3		
Radionuclides								
Lead-210 (Bq/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
Polonium-210 (Bq/L)	<0.005	<0.005	<0.005	<0.006	<0.005	<0.005		
Radium-226 (Bq/L)	<0.005	<0.005	<0.005	<0.005	0.008	<0.005		
Thorium-230 (Bq/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Trace Elements								
Antimony	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002		
Arsenic (µg/L)	0.1	0.1	0.1	0.2	0.1	<0.1	5	5
Beryllium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Cobalt	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001		
Fluoride	0.04	0.06	0.05	0.04	0.1	0.05		
Strontium	0.047	0.051	0.043	0.044	0.049	0.012		
Vanadium	<0.0001	<0.0001	<0.0001	0.0001	<0.0001	<0.0001		

[1]All values are in mg/L, unless specified otherwise.

[2]SSWQO = Saskatchewan surface water quality objectives for the protection of aquatic life (SE 2006).

[3]CWQG = Canadian water quality guidelines for the protection of aquatic life (CCME 2012).

APPENDIX C, TABLE 2

Detailed fish capture during the 2011 EARMP community program.

Community (Waterbody)[1]	Net Site[2]	Catch Date	Species	Fish Ordinal Number	Length (cm)	Weight (g)	Sex[3]	Maturity[4]	Spawning Condition[5]	Age (yrs)	Stomach Contents[6]
Uranium City (Crackingstone Inlet, Lake Athabasca)	SP01-01	05/10/2011	LT	1	55.1	2280	M	A	SP	14	10% Stickleback
			LT	2	55.7	2160	F	A	SP	19	Empty
			LT	3	54.1	1780	F	A	SP	14	Empty
			LT	4	53.3	1950	M	A	SP	14	70% Stickleback
			LT	5	52.6	1680	M	A	SP	-	Empty
			LW	6	40.1	1090	F	A	M	14	20% Unidentified BI
			LW	7	41.4	1220	M	A	M	8	Empty
			LW	8	43.4	1260	M	A	NS	13	35% Unidentified BI
			LW	9	40.4	1060	F	A	NS	14	40% Unidentified BI
			LW	10	41.3	1150	F	A	M	19	Empty
			NP	1	55.2	1320	M	A	MT	5	10% Lake whitefish
			NP	2	55.9	1410	F	A	MT	5	30% Lake whitefish
			NP	3	59.9	1720	F	A	MT	5	Empty
			NP	4	61.7	1960	F	A	MT	7	10% Unidentified BI
			NP	5	71.5	2560	F	A	MT	9	Empty
Fond du Lac (Fond du Lac River)	SP01-01	24/09/2011	LT	1	49.6	1430	M	A	SP	12	Empty
			LT	2	46.4	1310	F	J	NS	10	Empty
			LT	3	53.9	2020	F	A	SP	15	Empty
			LT	4	49.1	1230	F	J	NS	9	20% Unidentified
			LT	5	49.2	1530	M	A	SP	8	Empty
			LW	6	38.5	900	M	A	MT	30	Empty
			LW	7	44.9	1340	M	A	MT	26	Empty
			LW	8	36.4	805	F	A	M	31	Empty
			LW	9	41.1	1100	F	A	M	33	Empty
			LW	10	42.2	1120	M	A	MT	38	Empty
Black Lake (Black Lake)	SP01-01	22/09/2011	LT	1	44.9	1730	F	A	SP	12	Empty
			LT	2	51.2	1710	M	A	M	10	Empty
			LT	3	48.7	1480	M	A	SP	7	Empty
			LT	4	48.3	1450	F	A	SP	10	Empty
			LT	5	50.5	1740	M	A	M	10	Empty
			LW	6	38.3	840	F	A	M	21	20% Unidentified BI
			LW	7	41.8	1060	M	A	MT	21	40% Unidentified BI
			LW	8	45.5	1360	M	A	M	26	15% Unidentified BI
			LW	9	48	890	F	A	NS	10	Empty
			LW	10	45.2	1450	F	A	M	27	30% Unidentified BI

APPENDIX C, TABLE 2

Detailed fish capture during the 2011 EARMP community program.

Community (Waterbody)[1]	Net Site[2]	Catch Date	Species	Fish Ordinal Number	Length (cm)	Weight (g)	Sex[3]	Maturity[4]	Spawning Condition[5]	Age (yrs)	Stomach Contents[6]
Camsell Portage (Ellis Bay, Lake Athabasca)	SP01-01	05/10/2011	LT	1	49.8	1490	M	A	NS	12	30% Stickleback
			LT	2	48.6	1480	M	A	NS	8	50% Sucker
			LT	3	53.9	1920	F	A	NS	23	60% Stickleback
			LT	4	48.5	1420	F	J	NS	8	50% Stickleback
			LT	5	55.6	2480	F	A	NS	11	25% Stickleback
			LW	6	32	1250	M	A	M	31	Empty
			LW	7	43.2	1260	M	A	M	27	Empty
			LW	8	40	1380	F	A	M	22	Empty
			LW	9	39.5	1120	F	A	M	18	Empty
			LW	10	38.6	880	F	A	M	11	Empty
Stony Rapids (Fond du Lac River)	SP01-01	06/10/2011	LT	1	54.9	1750	F	A	ST	10	Empty
			LT	2	55.9	2060	F	A	ST	15	30% White Sucker
			LT	3	57.2	2180	F	A	ST	16	25% Ninespine stickleback
			LT	4	64.9	2840	F	A	ST	17	40% White sucker
			LT	5	69.6	3720	M	A	ST	15	Empty
			LW	6	47.8	1490	F	A	SP	27	Empty
			LW	7	44.8	1640	F	A	SP	14	Empty
			LW	8	48.1	1730	F	A	SP	13	Empty
			LW	9	51.4	2060	F	A	SP	29	Empty
			LW	10	42.5	1410	M	A	SP	8	25% Unidentified BI
Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	SP01-01	27/09/2011	LT	1	51.5	1730	F	A	NS	7	Empty
			LT	2	46.3	1220	M	J	NS	7	80% Lake chub + unidentified fish
			LT	3	46.8	1440	M	A	SP	7	Empty
			LT	4	47.9	1410	F	A	NS	8	Empty
			LT	5	46.6	1430	M	A	M	6	Empty
			LW	6	36.5	780	M	A	M	16	Empty
			LW	7	38	820	M	A	MT	16	Empty
			LW	8	40.6	940	M	A	MT	14	Empty
			LW	9	36.9	810	M	A	MT	12	Empty
			LW	10	39.2	825	F	A	M	17	Empty

[1]For the community program, all waterbodies are arbitrarily treated as farfield exposures until further analysis.

[2]For the community program, all fish were captured using community nets as the sole fish collection method.

[3]M: male; F: female

[4]A: adult; J: juvenile.

[5]NS: non-spawner; MT: green; M: ripe; SP: running ripe; ST:spent

[6]All fish were healthy.

APPENDIX C, TABLE 3

Descriptive statistics of fish collected for chemistry during the 2011 EARMP community program.

Community (Waterbody)[1]	Statistic	Species							
		Lake Trout		Lake Whitefish		Northern Pike		All Species	
		Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)	Length (cm)	Weight (g)
Black Lake (Black Lake)	N	5	5	5	5	-	-	10	10
	Average	48.7	1622	43.8	1120	-	-	46.2	1371
	S.D.	2.5	144	3.8	274	-	-	4.0	336
	Minimum	44.9	1450	38.3	840	-	-	38.3	840
	Maximum	51.2	1740	48.0	1450	-	-	51.2	1740
Uranium City (Crackingstone Inlet, Lake Athabasca)	N	5	5	5	5	5	5	15	15
	Average	54.2	1970	41.3	1156	60.8	1794	52.1	1640
	S.D.	1.3	251	1.3	84	6.5	498	9.1	471
	Minimum	52.6	1680	40.1	1060	55.2	1320	40.1	1060
	Maximum	55.7	2280	43.4	1260	71.5	2560	71.5	2560
Camsell Portage (Ellis Bay, Lake Athabasca)	N	5	5	5	5	-	-	10	10
	Average	51.3	1758	38.7	1178	-	-	45.0	1468
	S.D.	3.3	450	4.1	190	-	-	7.5	447
	Minimum	48.5	1420	32.0	880	-	-	32.0	880
	Maximum	55.6	2480	43.2	1380	-	-	55.6	2480
Fond du Lac (Fond du Lac River)	N	5	5	5	5	-	-	10	10
	Average	49.6	1504	40.6	1053	-	-	45.1	1279
	S.D.	2.7	310	3.3	209	-	-	5.5	344
	Minimum	46.4	1230	36.4	805	-	-	36.4	805
	Maximum	53.9	2020	44.9	1340	-	-	53.9	2020
Stony Rapids (Fond du Lac River)	N	5	5	5	5	-	-	10	10
	Average	60.5	2510	46.9	1666	-	-	53.7	2088
	S.D.	6.4	785	3.4	253	-	-	8.6	707
	Minimum	54.9	1750	42.5	1410	-	-	42.5	1410
	Maximum	69.6	3720	51.4	2060	-	-	69.6	3720
Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	N	5	5	5	5	-	-	10	10
	Average	47.8	1446	38.2	835	-	-	43.0	1141
	S.D.	2.1	183	1.7	61	-	-	5.4	347
	Minimum	46.3	1220	36.5	780	-	-	36.5	780
	Maximum	51.5	1730	40.6	940	-	-	51.5	1730
All Waterbodies	N	30	30	30	30	5	5	65	65
	Average	52.0	1802	41.6	1168	60.8	1794	47.9	1509
	S.D.	5.4	526	4.2	310	6.5	498	8.0	534
	Minimum	44.9	1220	32.0	780	55.2	1320	32.0	780
	Maximum	69.6	3720	51.4	2060	71.5	2560	71.5	3720

[1]For the community program, all waterbodies are arbitrarily treated as farfield exposures until further analysis.

APPENDIX C, TABLE 4

Detailed Black Lake fish flesh chemistry data, fall 2011.

Analyte[1]	Black Lake (Black Lake)									
	Lake Trout					Lake Whitefish				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.02	0.03	0.01	<0.01	0.03	0.06	0.13	0.09	<0.01	0.02
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.27	0.41	0.31	0.22	1	0.24	0.21	0.12	0.17	0.14
Iron	1.9	3.3	2	4.5	6	2.3	2.9	2.5	1.4	1.5
Lead	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002
Manganese	0.06	0.08	0.08	0.08	0.09	0.18	0.39	0.22	0.06	0.09
Mercury	0.45	0.41	0.37	0.33	0.37	0.16	0.13	0.14	0.06	0.21
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Selenium	0.11	0.15	0.15	0.11	0.13	0.30	0.35	0.25	0.36	0.31
Silver	<0.002	<0.002	<0.002	<0.002	0.005	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.09	0.08	0.07	0.08	0.08	0.09	0.08	0.08	0.08
Uranium	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001
Zinc	2.9	4.7	2.5	2.2	5.9	3.9	4.6	3.5	4.7	3.3
Physical Properties										
Moisture (%)	77.19	77.72	73.93	76.78	77.42	75.22	76.01	76.93	75.27	75.79
Radionuclides										
Lead-210 (Bq/g)	0.002	<0.001	0.002	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	0.0005	0.0007	<0.0002
Radium-226 (Bq/g)	<0.00004	<0.00006	<0.00007	<0.00005	<0.00006	<0.00006	<0.00006	0.00009	<0.00007	<0.00006
Thorium-230 (Bq/g)	<0.00009	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.05	0.06	0.07	0.05	0.10	0.25	0.27	0.40	0.14	0.37
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	0.002	0.002	0.003	0.005	<0.002	0.003	0.003
Strontium	0.10	0.07	0.09	0.05	0.13	0.79	0.24	1.20	0.28	0.22
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 5

Detailed Uranium City fish flesh chemistry data, fall 2011.

Analyte[1]	Uranium City (Crackingstone Inlet, Lake Athabasca)														
	Lake Trout					Lake Whitefish					Northern Pike				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10	NP01	NP02	NP03	NP04	NP05
Metals															
Aluminum	0.9	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.03	<0.01	0.04	0.01	<0.01	0.63	0.6	0.01	0.17	0.04	0.02	0.04	0.01	0.12	<0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.27	0.13	0.2	0.24	0.22	0.19	0.25	0.15	0.19	0.2	0.28	0.25	0.25	0.16	0.17
Iron	5.3	1.9	1.9	2.3	3.4	1.3	2.1	4.4	1.8	4.3	2.8	2.3	2.4	2	1.3
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.2	0.06	0.07	0.06	0.09	0.09	0.08	0.07	0.11	0.11	0.12	0.13	0.11	0.13	0.07
Mercury	0.13	0.17	0.18	0.17	0.13	0.04	0.04	0.09	0.02	0.02	0.09	0.06	0.05	0.13	0.14
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.04	0.03	<0.01	<0.01	<0.01
Selenium	0.16	0.15	0.12	0.21	0.18	0.18	0.21	0.58	2.60	0.28	0.64	0.52	0.32	0.36	0.42
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.11	0.07	0.08	0.08	0.08	0.07	0.07	0.06	0.08	0.07	0.09	0.07	0.07	0.09	0.07
Uranium	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.007	0.006	0.008	0.012	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	6.5	3.4	3.8	2.6	7.8	3.6	4.4	5.3	5	4.1	6.2	6.6	7.9	6	3.5
Physical Properties															
Moisture (%)	66.65	72.8	72.26	70.93	75.14	75.91	75.86	76.21	73.83	74.66	78.43	78.59	79.09	78.21	77.81
Radionuclides															
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0007	0.0007	<0.0002	0.0008	0.001	0.0003	0.001	0.0004
Radium-226 (Bq/g)	<0.00007	<0.00006	<0.00007	<0.00006	0.0004	<0.00008	<0.00006	0.0003	<0.00007	<0.00008	0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Thorium-230 (Bq/g)	<0.0001	0.0002	<0.0001	0.0001	<0.0001	0.0004	<0.0001	<0.0002	<0.0001	<0.0002	0.0003	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements															
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.11	0.08	0.12	0.07	0.06	0.12	0.05	0.12	0.11	0.11	0.05	0.06	0.05	0.05	0.10
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.009	0.004	<0.002	0.004	0.002	0.002	0.002	0.002	0.002
Strontium	0.17	0.17	0.46	0.07	0.12	0.22	0.18	0.34	0.75	0.45	0.14	0.27	0.13	0.57	0.09
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 6

Detailed Camsell Portage fish flesh chemistry data, fall 2011.

Analyte[1]	Camsell Portage (Ellis Bay, Lake Athabasca)									
	Lake Trout					Lake Whitefish				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.04	0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.06	<0.01	<0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.52	0.52	0.11	0.32	0.28	0.12	0.15	0.38	0.11	0.15
Iron	4.5	3	1	2.2	2	1.5	1.2	3.6	1.1	2.2
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.1	0.09	0.09	0.07	0.08	0.12	0.19	0.13	0.12	0.1
Mercury	0.13	0.20	0.28	0.07	0.18	0.07	0.06	0.03	0.03	0.02
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.02	<0.01	<0.01
Selenium	0.14	0.18	0.15	0.16	0.18	0.29	0.25	0.25	0.22	0.25
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.07	0.15	0.06	0.07	0.06	0.07	0.07	0.06	0.06	0.07
Uranium	0.014	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Zinc	11	3.8	2.9	3.8	3.5	3	2.8	4.4	3.3	3.1
Physical Properties										
Moisture (%)	73.73	71.7	74.1	70.34	67.36	74.81	78.24	73.86	77.91	76.16
Radionuclides										
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00007	<0.00006	0.0002	0.00009	0.0001	<0.00006	<0.00006	<0.0002	<0.00006	0.0003
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0003	<0.0001	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.12	0.08	0.12	0.08	0.12	0.38	0.24	0.36	0.31	0.17
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	0.003	<0.002	<0.002	0.002	<0.002	<0.002	0.007	0.002	0.002
Strontium	0.3	0.19	0.26	0.20	0.15	0.15	0.74	1.00	0.18	0.24
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 7

Detailed Fond du Lac fish flesh chemistry data, fall 2011.

Analyte[1]	Fond du Lac (Fond du Lac River)									
	Lake Trout					Lake Whitefish				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.3
Barium	<0.01	0.02	0.01	0.66	0.01	0.06	0.04	0.02	<0.01	0.03
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	0.006
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.17	0.31	0.4	0.19	0.4	0.14	0.18	0.12	0.22	0.28
Iron	2.1	2.1	3.2	1.8	2.8	1.7	2.9	1.3	2.6	6
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002
Manganese	0.09	0.08	0.09	0.1	0.08	0.17	0.13	0.07	0.14	0.08
Mercury	0.26	0.30	0.24	0.1	0.23	0.14	0.12	0.14	0.18	0.18
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Selenium	0.17	0.12	0.16	0.16	0.13	0.25	0.15	0.22	0.20	0.29
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.09	0.09	0.1	0.08	0.08	0.08	0.09	0.07	0.1
Uranium	<0.001	0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	0.003
Zinc	3	3.7	4.2	3.2	3.9	3	4.2	3.2	3	4.2
Physical Properties										
Moisture (%)	76.91	76.77	74.35	75.75	71.88	73.98	78.34	76.86	75.56	75.69
Radionuclides										
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00008	<0.00006	<0.00006	<0.00006	<0.00007
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.17	0.08	0.10	0.05	0.12	0.40	0.19	0.20	0.52	0.29
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	0.005	0.003	0.003	0.015
Strontium	0.11	0.16	0.18	0.20	0.18	1.00	0.88	0.55	0.15	0.36
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 8

Detailed Stony Rapids fish flesh chemistry data, fall 2011.

Analyte[1]	Stony Rapids (Fond du Lac River)									
	Lake Trout					Lake Whitefish				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	<0.01	<0.01	0.01	<0.01	0.01	0.01	0.01	0.09	<0.01	0.02
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.28	0.2	0.22	0.22	0.17	0.36	0.15	0.14	0.26	0.19
Iron	1.9	1.7	1.5	1.6	1.2	3.5	2	2	2.2	1.7
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.09	0.09	0.08	0.12	0.06	0.09	0.1	0.18	0.08	0.1
Mercury	0.27	0.46	0.57	0.38	0.49	0.23	0.06	0.15	0.37	0.06
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.01	<0.01	<0.01	<0.01	<0.01	0.05	<0.01	0.01	<0.01	<0.01
Selenium	0.10	0.11	0.09	0.14	0.16	0.13	0.10	0.15	0.27	0.12
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.07	0.08	0.08	0.08	0.07	0.08	0.08	0.07	0.09
Uranium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001
Zinc	4.7	3.1	3.4	3.3	2.5	4	4	4.1	8.3	4.7
Physical Properties										
Moisture (%)	77.77	77.9	77.43	76.77	73.64	76.78	78.07	78.94	77.19	75.5
Radionuclides										
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	0.0004	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00007	<0.00006	<0.00006	<0.00006	<0.00006	<0.00008	0.0001	0.00006	0.0001	<0.00006
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.00009	<0.00008	<0.0002	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.02	0.06	0.05	0.06	0.09	0.06	0.03	0.03	0.07	0.02
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	<0.002	<0.002	0.005	0.009	0.012	0.004	0.008
Strontium	0.10	0.09	0.21	0.23	0.09	0.23	0.26	2.00	0.12	0.24
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 9

Detailed Wollaston Lake/Hatchet Lake fish flesh chemistry data, fall 2011.

Analyte[1]	Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)									
	Lake Trout					Lake Whitefish				
	LT01	LT02	LT03	LT04	LT05	LW06	LW07	LW08	LW09	LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.02	0.02	0.02	0.02	<0.01	0.11	0.01	0.01	0.02	0.02
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.62	0.48	0.53	0.31	0.3	0.26	0.16	0.18	0.12	0.14
Iron	6	4	2.6	1.8	1.9	2.2	1.3	1.5	3.1	1.4
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.1	0.1	0.07	0.06	0.07	0.15	0.09	0.09	0.12	0.1
Mercury	0.15	0.16	0.16	0.20	0.12	0.06	0.05	0.05	0.05	0.08
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.17	0.28	0.19	0.18	0.19	0.39	0.41	0.34	0.38	0.38
Silver	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.09	0.09	0.09	0.09	0.07	0.07	0.08	0.08	0.11	0.08
Uranium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	5.5	6.6	3.9	3.1	3.3	5.1	3	3.8	4.7	4.3
Physical Properties										
Moisture (%)	78.93	75.5	76.46	75.65	75.48	73.6	75.29	75.27	76.01	73.6
Radionuclides										
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0003	0.0004	<0.0002	0.0002	0.0004
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	0.0003	0.00009	<0.00006	<0.00006	<0.00008	<0.00006	<0.00006
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.06	0.03	0.04	0.02	0.04	0.24	0.13	0.17	0.09	0.18
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.005	<0.002
Strontium	0.09	0.22	0.09	0.15	0.05	0.47	0.08	0.11	0.24	0.14
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX C, TABLE 10

Community fish flesh chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake (Black Lake)		Uranium City (Crackingstone Inlet, Lake Athabasca)			Camsell Portage (Ellis Bay, Lake Athabasca)		Fond du Lac (Fond du Lac River)		Stony Rapids (Fond du Lac River)		Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	
		Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Northern Pike	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish
Metals														
Aluminum	Average	0.5	0.5	0.58	0.5	0.5	0.5	0.5	0.5	0.66	0.5	0.5	0.5	0.5
	S.D.	0	0	0.18	0	0	0	0	0	0.36	0	0	0	0
	Minimum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	0.5	0.5	0.9	0.5	0.5	0.5	0.5	0.5	1.3	0.5	0.5	0.5	0.5
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	3	5	5	5	5	5	4	5	5	5	5
Barium	Average	0.02	0.06	0.02	0.29	0.04	0.02	0.03	0.14	0.03	0.01	0.03	0.02	0.03
	S.D.	0.01	0.05	0.01	0.30	0.05	0.01	0.02	0.29	0.02	0	0.03	0.00	0.04
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.03	0.13	0.04	0.63	0.12	0.04	0.06	0.66	0.06	0.01	0.09	0.02	0.11
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	1	1	2	0	1	3	3	1	1	3	1	1	0
Boron	Average	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5	5	5	5	5	5	5	5
Cadmium	Average	0.002	0.002	0.002	0.0022	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0.0004	0	0	0	0	0.002	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.006	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	4	5	5	5	5	3	5	5	5	5
Chromium	Average	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5	5	5	5	5	5	5	5
Copper	Average	0.44	0.18	0.21	0.20	0.22	0.35	0.18	0.29	0.19	0.22	0.22	0.45	0.17
	S.D.	0.32	0.05	0.05	0.04	0.05	0.17	0.11	0.11	0.06	0.04	0.09	0.14	0.05
	Minimum	0.22	0.12	0.13	0.15	0.16	0.11	0.11	0.17	0.12	0.17	0.14	0.3	0.12
	Maximum	1	0.24	0.27	0.25	0.28	0.52	0.38	0.4	0.28	0.28	0.36	0.62	0.26
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C, TABLE 10

Community fish flesh chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake (Black Lake)		Uranium City (Crackingstone Inlet, Lake Athabasca)			Camsell Portage (Ellis Bay, Lake Athabasca)		Fond du Lac (Fond du Lac River)		Stony Rapids (Fond du Lac River)		Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	
		Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Northern Pike	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish
Iron	Average	3.54	2.12	2.96	2.78	2.16	2.54	1.92	2.40	2.90	1.58	2.28	3.26	1.90
	S.D.	1.74	0.65	1.44	1.46	0.56	1.31	1.03	0.58	1.85	0.26	0.70	1.77	0.76
	Minimum	1.9	1.4	1.9	1.3	1.3	1	1.1	1.8	1.3	1.2	1.7	1.8	1.3
	Maximum	6	2.9	5.3	4.4	2.8	4.5	3.6	3.2	6	1.9	3.5	6	3.1
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	Average	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0.001	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.004	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	4	4	5	5	5	5	5	5	4	5	5	5	4
Manganese	Average	0.08	0.19	0.10	0.09	0.11	0.09	0.13	0.09	0.12	0.09	0.11	0.08	0.11
	S.D.	0.01	0.13	0.06	0.02	0.02	0.01	0.03	0.01	0.04	0.02	0.04	0.02	0.03
	Minimum	0.06	0.06	0.06	0.07	0.07	0.07	0.10	0.08	0.07	0.06	0.08	0.06	0.09
	Maximum	0.09	0.39	0.20	0.11	0.13	0.10	0.19	0.10	0.17	0.12	0.18	0.10	0.15
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	Average	0.39	0.14	0.16	0.04	0.09	0.17	0.04	0.23	0.15	0.43	0.17	0.16	0.06
	S.D.	0.05	0.05	0.02	0.03	0.04	0.08	0.02	0.08	0.03	0.11	0.13	0.03	0.01
	Minimum	0.33	0.06	0.13	0.02	0.05	0.07	0.02	0.1	0.12	0.27	0.06	0.12	0.05
	Maximum	0.45	0.21	0.18	0.09	0.14	0.28	0.07	0.3	0.18	0.57	0.37	0.2	0.08
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Molybdenum	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	4	5	5	5	5	5	5	5	5	5
Nickel	Average	0.01	0.01	0.012	0.02	0.02	0.01	0.012	0.01	0.012	0.01	0.02	0.012	0.01
	S.D.	0	0	0.004	0.03	0.01	0.01	0.004	0	0.004	0	0.02	0.004	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.02	0.08	0.04	0.03	0.02	0.01	0.02	0.01	0.05	0.02	0.01
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	4	3	4	3	3	4	5	4	4	3	3	5
Selenium	Average	0.13	0.31	0.16	0.77	0.45	0.16	0.25	0.15	0.22	0.12	0.15	0.20	0.38
	S.D.	0.02	0.04	0.03	1.04	0.13	0.02	0.02	0.02	0.05	0.03	0.07	0.04	0.03
	Minimum	0.11	0.25	0.12	0.18	0.32	0.14	0.22	0.12	0.15	0.09	0.1	0.17	0.34
	Maximum	0.15	0.36	0.21	2.6	0.64	0.18	0.29	0.17	0.29	0.16	0.27	0.28	0.41
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C, TABLE 10

Community fish flesh chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake (Black Lake)		Uranium City (Crackingstone Inlet, Lake Athabasca)			Camsell Portage (Ellis Bay, Lake Athabasca)		Fond du Lac (Fond du Lac River)		Stony Rapids (Fond du Lac River)		Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	
		Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Northern Pike	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish
Silver	Average	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0.001	0	0	0	0	0	0	0	0	0	0	0.000	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	4	5	5	5	5	5	5	5	5	5	5	4	5
Thallium	Average	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	4	5	5	4	5	5	5	5	5	5	5
Tin	Average	0.01	0.01	0.01	0.012	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0.004472136	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	4	5	5	5	5	5	5	5	5	5
Titanium	Average	0.080	0.082	0.084	0.070	0.078	0.082	0.066	0.088	0.084	0.078	0.078	0.086	0.084
	S.D.	0.007	0.004	0.015	0.007	0.011	0.038	0.005	0.008	0.011	0.004	0.008	0.009	0.015
	Minimum	0.07	0.08	0.07	0.06	0.07	0.06	0.06	0.08	0.07	0.07	0.07	0.07	0.07
	Maximum	0.09	0.09	0.11	0.08	0.09	0.15	0.07	0.1	0.1	0.08	0.09	0.09	0.11
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Uranium	Average	0.001	0.0012	0.001	0.007	0.001	0.004	0.0012	0.001	0.0016	0.001	0.001	0.001	0.001
	S.D.	0	0.0004	0	0.004	0	0.006	0.0004	0	0.0009	0	0	0	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Maximum	0.001	0.002	0.001	0.012	0.001	0.014	0.002	0.001	0.003	0.001	0.001	0.001	0.001
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	4	4	1	5	4	4	4	3	5	4	5	5
Zinc	Average	3.6	4.0	4.8	4.5	6.0	5.0	3.3	3.6	3.5	3.4	5.0	4.5	4.2
	S.D.	1.6	0.6	2.2	0.7	1.6	3.4	0.6	0.5	0.6	0.8	1.9	1.5	0.8
	Minimum	2.2	3.3	2.6	3.6	3.5	2.9	2.8	3	3	2.5	4	3.1	3
	Maximum	5.9	4.7	7.8	5.3	7.9	11	4.4	4.2	4.2	4.7	8.3	6.6	5.1
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical Properties														
Moisture (%)	Average	76.6	75.8	71.6	75.3	78.4	71.4	76.2	75.1	76.1	76.7	77.3	76.4	74.8
	S.D.	1.5	0.7	3.1	1.0	0.5	2.7	1.9	2.1	1.6	1.8	1.3	1.5	1.1
	Minimum	73.9	75.2	66.7	73.8	77.8	67.4	73.9	71.9	74.0	73.6	75.5	75.5	73.6
	Maximum	77.7	76.9	75.1	76.2	79.1	74.1	78.2	76.9	78.3	77.9	78.9	78.9	76.0
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C, TABLE 10

Community fish flesh chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake (Black Lake)		Uranium City (Crackingstone Inlet, Lake Athabasca)			Camsell Portage (Ellis Bay, Lake Athabasca)		Fond du Lac (Fond du Lac River)		Stony Rapids (Fond du Lac River)		Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	
		Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Northern Pike	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish
Radionuclides														
Lead-210 (Bq/g)	Average	0.0014	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	S.D.	0.0005	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Maximum	0.002	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	2	4	5	5	5	5	5	5	5	5	5	5	5
Polonium-210 (Bq/g)	Average	0.0002	0.0004	0.0002	0.0004	0.0007	0.0002	0.0003	0.0002	0.0002	0.00024	0.0002	0.0002	0.0003
	S.D.	0	0.0002	0	0.0003	0.0003	0	0.0001	0	0	0.00009	0	0	0.0001
	Minimum	0.0002	0.0002	0.0002	0.0002	0.0003	0.0002	0.0002	0.0002	0.0002	0.00020	0.0002	0.0002	0.0002
	Maximum	0.0002	0.0007	0.0002	0.0007	0.0010	0.0002	0.0005	0.0002	0.0002	0.00040	0.0002	0.0002	0.0004
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	2	5	3	0	5	4	5	4	4	5	5	1
Radium-226 (Bq/g)	Average	0.00006	0.00007	0.00013	0.00012	0.00006	0.00010	0.00014	0.00006	0.000066	0.000062	0.00008	0.00011	0.000064
	S.D.	0.00001	0.00001	0.00015	0.00010	0	0.00006	0.00011	0	0.000009	0.000004	0.00002	0.00010	0.000009
	Minimum	0.00004	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.000060	0.000060	0.00006	0.00006	0.000060
	Maximum	0.00007	0.00009	0.00040	0.00030	0.00006	0.00020	0.00030	0.00006	0.000080	0.000070	0.00010	0.00030	0.000080
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	4	4	4	4	2	4	5	5	5	2	3	5
Thorium-230 (Bq/g)	Average	0.000098	0.000100	0.000120	0.000200	0.000140	0.000140	0.000140	0.000100	0.000120	0.000100	0.000134	0.000100	0.000120
	S.D.	0.000004	0	0.000045	0.000122	0.000089	0.000055	0.000089	0	0.000045	0	0.000061	0	0.000045
	Minimum	0.000090	0.000100	0.000100	0.000100	0.000100	0.000100	0.000100	0.000100	0.000100	0.000100	0.000080	0.000100	0.000100
	Maximum	0.000100	0.000100	0.000200	0.000400	0.000300	0.000200	0.000300	0.000100	0.000200	0.000100	0.000200	0.000100	0.000200
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	4	5	3	4	4	5	5	5	5	5	5	5	5
Trace Elements														
Antimony	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5	5	5	5	5	5	5	5
Arsenic	Average	0.07	0.29	0.09	0.10	0.06	0.10	0.29	0.10	0.32	0.06	0.04	0.04	0.16
	S.D.	0.02	0.10	0.03	0.03	0.02	0.02	0.09	0.05	0.14	0.03	0.02	0.01	0.06
	Minimum	0.05	0.14	0.06	0.05	0.05	0.08	0.17	0.05	0.19	0.02	0.02	0.02	0.09
	Maximum	0.10	0.40	0.12	0.12	0.10	0.12	0.38	0.17	0.52	0.09	0.07	0.06	0.24
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX C, TABLE 10

Community fish flesh chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Black Lake (Black Lake)		Uranium City (Crackingstone Inlet, Lake Athabasca)			Camsell Portage (Ellis Bay, Lake Athabasca)		Fond du Lac (Fond du Lac River)		Stony Rapids (Fond du Lac River)		Wollaston Lake/Hatchet Lake (Welcome Bay, Wollaston Lake)	
		Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Northern Pike	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish	Lake Trout	Lake Whitefish
Beryllium	Average	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5	5	5	5	5	5	5	5
Cobalt	Average	0.002	0.003	0.002	0.004	0.002	0.002	0.003	0.002	0.006	0.002	0.008	0.002	0.003
	S.D.	0	0.001	0.000	0.003	0	0.001	0.002	0	0.005	0	0.003	0	0.001
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.004	0.002	0.002
	Maximum	0.002	0.005	0.003	0.009	0.002	0.003	0.007	0.002	0.015	0.002	0.012	0.002	0.005
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	3	1	4	2	0	2	2	5	0	5	0	5	4
Strontium	Average	0.09	0.55	0.20	0.39	0.24	0.22	0.46	0.17	0.59	0.14	0.57	0.12	0.21
	S.D.	0.03	0.44	0.15	0.23	0.20	0.06	0.38	0.03	0.35	0.07	0.80	0.07	0.16
	Minimum	0.05	0.22	0.07	0.18	0.09	0.15	0.15	0.11	0.15	0.09	0.12	0.05	0.08
	Maximum	0.13	1.20	0.46	0.75	0.57	0.30	1.00	0.20	1.00	0.23	2.00	0.22	0.47
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanadium	Average	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5	5	5	5	5	5	5	5

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance".

S.D.=Standard deviation.

<MDL = inferior to the laboratory detection limit.

All statistics computed using concentration = 1* MDL for values <MDL.

APPENDIX C, TABLE 11

Detailed blueberry chemistry results for the EARMP community program, fall 2011.

Analyte[1]	Black Lake					Fond du Lac					Stony Rapids					Wollaston Lake/Hatchet Lake				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals																				
Aluminum	6.0	8.6	7.9	8.6	6.0	4.4	9.5	6.2	7.0	6.2	21.0	8.0	27.0	37.0	10.0	6.1	3.9	8.7	6.2	5.9
Barium	12	15	13	11	15	12	12	13	13	12	15	15	16	8.9	13	16	17	15	14	15
Boron	6	5	5	3	5	8	6	7	8	6	12	5	4	3	4	7	4	7	13	6
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	3.3	3.2	2.5	2.6	3.1	2.7	3.0	3.6	3.2	3.9	2.9	3.2	3.0	2.4	2.9	2.9	1.7	3.0	3.0	2.6
Iron	8.4	11.0	8.6	11.0	10.0	10.0	8.2	9.7	11.0	9.3	16.0	12.0	23.0	32.0	11.0	6.8	5.4	12.0	9.5	9.0
Lead	0.07	0.02	0.02	0.07	<0.01	<0.01	0.02	<0.01	0.03	0.01	0.01	<0.01	0.02	0.04	<0.01	0.04	<0.01	0.01	<0.01	<0.01
Manganese	160	130	120	180	220	140	150	140	140	130	140	100	130	70	180	270	290	300	290	260
Molybdenum	0.2	0.2	0.1	0.1	0.2	0.4	0.2	0.4	0.4	0.4	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.1
Nickel	0.66	0.68	0.54	0.56	0.38	0.97	0.67	0.75	0.8	0.74	0.75	0.68	0.84	0.82	0.74	0.66	0.28	0.59	0.5	0.59
Selenium	<0.05	0.08	<0.05	<0.05	0.06	<0.05	<0.05	<0.05	0.08	0.07	<0.05	0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.05	<0.05	<0.05
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Tin	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium	<0.05	0.08	0.06	0.10	0.15	<0.05	0.08	0.08	0.08	0.10	0.26	0.12	1.60	1.40	0.19	<0.05	0.07	0.13	0.09	0.09
Uranium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.01	<0.01	<0.01	0.02	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	4.8	6.1	5.0	3.9	5.5	5.6	6.0	7.5	7.0	7.1	5.8	6.4	5.1	4.9	5.3	5.7	3.0	5.5	5.1	4.4
Physical Properties																				
Moisture (%)	86.2	86.7	85.1	86.0	87.4	87.1	85.5	86.7	84.6	86.3	85.8	85.5	84.1	85.1	86.6	85.3	84.5	84.8	84.4	85.1
Radionuclides																				
Lead-210 (Bq/g)	0.009	0.005	0.007	0.009	0.012	<0.004	0.007	0.010	0.011	0.006	<0.004	0.005	0.012	0.006	<0.004	0.005	0.009	0.008	0.010	0.004
Polonium-210 (Bq/g)	0.001	0.002	0.001	0.002	<0.0009	0.001	0.002	0.001	0.004	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.004	0.004	0.004
Radium-226 (Bq/g)	0.002	0.004	0.004	0.002	0.002	0.002	0.004	0.003	0.001	0.005	0.003	0.006	0.001	<0.0009	0.001	<0.001	0.001	<0.001	0.006	<0.001
Thorium-230 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements																				
Antimony	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.05	0.01	<0.01	0.01	<0.01	0.01	0.02	<0.01	<0.01	<0.01	0.01	0.07	0.01	0.02	0.01	0.01	<0.01	<0.01	<0.01	<0.01
Strontium	2.1	4.4	3.5	2.1	1.2	1.3	1.3	1.4	1.6	1.3	2.6	1.7	2.9	2.5	2.0	3.4	1.2	3.1	3.8	3.6
Vanadium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

[1]All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Metals							
Aluminum	Average	7.4	6.7	20.6	6.16	17.6	22.0
	S.D.	1.3	1.9	12.1	1.7	1.3	5.8
	Minimum	6.0	4.4	8.0	3.9	16.0	15.0
	Maximum	8.6	9.5	37.0	8.7	19.0	29.0
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Barium	Average	13.2	12.4	13.6	15.4	13.0	11.1
	S.D.	1.8	0.5	2.8	1.1	2.3	1.9
	Minimum	11.0	12.0	8.9	14.0	9.1	9.1
	Maximum	15.0	13.0	16.0	17.0	15.0	13.0
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Boron	Average	4.8	7.0	5.6	7.4	8.8	10.2
	S.D.	1.1	1.0	3.6	3.4	0.8	2.3
	Minimum	3.0	6.0	3.0	4.0	8.0	8.0
	Maximum	6.0	8.0	12.0	13.0	10.0	14.0
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Cadmium	Average	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0[2]	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	4	5

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Chromium	Average	0.5	0.5	0.5	0.5	0.5	0.5
	S.D.	0	0	0	0	0	0
	Minimum	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	0.5	0.5	0.5	0.5	0.5	0.5
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Copper	Average	2.9	3.3	2.9	2.6	4.4	3.6
	S.D.	0.4	0.5	0.3	0.6	0.5	1.4
	Minimum	2.5	2.7	2.4	1.7	3.6	2.6
	Maximum	3.3	3.9	3.2	3.0	4.9	5.9
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Iron	Average	9.8	9.6	18.8	8.5	10.1	14.5
	S.D.	1.3	1.0	8.8	2.5	0.5	3.9
	Minimum	8.4	8.2	11.0	5.4	9.7	9.5
	Maximum	11.0	11.0	32.0	12.0	11.0	20.0
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Lead	Average	0.04	0.02	0.02	0.02	0.012	0.012
	S.D.	0.03	0.01	0.01	0.01	0.004	0.004
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.07	0.03	0.04	0.04	0.02	0.02
	N	5	5	5	5	5	5
	<MDL	1	2	2	3	3	0
Manganese	Average	162	140	124	282	102	198
	S.D.	40	7	42	16	15	73
	Minimum	120	130	70	260	80	110
	Maximum	220	150	180	300	120	300
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Molybdenum	Average	0.16	0.36	0.12	0.10	0.1	0.1
	S.D.	0.05	0.09	0.04	0.00	0.1	0
	Minimum	0.10	0.20	0.10	0.10	0.1	0.1
	Maximum	0.20	0.40	0.20	0.10	0.2	0.1
	N	5	5	5	5	5	5
	<MDL	0	0	3	3	1	5
Nickel	Average	0.56	0.79	0.77	0.52	0.49	0.62
	S.D.	0.12	0.11	0.06	0.15	0.10	0.33
	Minimum	0.38	0.67	0.68	0.28	0.37	0.28
	Maximum	0.68	0.97	0.84	0.66	0.65	1.10
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Selenium	Average	0.06	0.06	0.05	0.05	0.05	0.05
	S.D.	0.01	0.01	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.08	0.08	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5
	<MDL	3	3	4	4	5	5
Silver	Average	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Thallium	Average	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Tin	Average	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Titanium	Average	0.09	0.08	0.71	0.09	0.08	0.18
	S.D.	0.04	0.02	0.72	0.03	0.05	0.17
	Minimum	0.05	0.05	0.12	0.05	0.05	0.06
	Maximum	0.15	0.1	1.6	0.13	0.17	0.47
	N	5	5	5	5	5	5
	<MDL	1	1	0	1	1	0
Uranium	Average	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0.004	0.01	0	0.004	0.004
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.02	0.02	0.01	0.02	0.02
	N	5	5	5	5	5	5
	<MDL	5	3	2	5	2	2
Zinc	Average	5.1	6.6	5.5	4.7	6.3	6.8
	S.D.	0.8	0.8	0.6	1.1	0.6	1.5
	Minimum	3.9	5.6	4.9	3.0	5.3	5.2
	Maximum	6.1	7.5	6.4	5.7	6.7	8.9
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Physical Properties							
Moisture (%)	Average	86.3	86.0	85.4	84.8	87.1	87.5
	S.D.	0.8	1.0	0.9	0.4	0.3	0.6
	Minimum	85.1	84.6	84.1	84.4	86.8	86.9
	Maximum	87.4	87.1	86.6	85.3	87.5	88.4
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Radionuclides							
Lead-210 (Bq/g)	Average	0.008	0.008	0.006	0.007	0.013	0.010
	S.D.	0.003	0.003	0.003	0.003	0.006	0.006
	Minimum	0.005	0.004	0.004	0.004	0.006	0.005
	Maximum	0.012	0.011	0.012	0.010	0.020	0.016
	N	5	5	5	5	5	5
	<MDL	0	1	2	0	0	0
Polonium-210 (Bq/g)	Average	0.0014	0.0020	0.0022	0.0032	0.002	0.005
	S.D.	0.0006	0.0012	0.0004	0.0011	0.001	0.004
	Minimum	0.0009	0.0010	0.0020	0.0020	0.001	0.002
	Maximum	0.0020	0.0040	0.0030	0.0040	0.003	0.013
	N	5	5	5	5	5	5
	<MDL	1	0	0	0	0	0
Radium-226 (Bq/g)	Average	0.0028	0.0030	0.0024	0.0020	0.004	0.002
	S.D.	0.0011	0.0016	0.0022	0.0022	0.002	0.003
	Minimum	0.0020	0.0010	0.0009	0.0010	0.002	0.001
	Maximum	0.0040	0.0050	0.0060	0.0060	0.006	0.007
	N	5	5	5	5	5	5
	<MDL	0	0	1	3	0	3

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Thorium-230 (Bq/g)	Average	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Trace Elements							
Antimony	Average	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Arsenic	Average	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5
Beryllium	Average	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5

APPENDIX C, TABLE 12

Blueberry and bog cranberry chemistry detailed descriptive statistics, fall 2011.

Analyte[1]	Data	Blueberry				Cranberry	
		Black Lake	Fond du Lac	Stony Rapids	Wollaston Lake/ Hatchet Lake	Camsell Portage	Uranium City
Cobalt	Average	0.018	0.012	0.024	0.010	0.01	0.04
	S.D.	0.018	0.004	0.026	0.000	0	0.05
	Minimum	0.01	0.01	0.01	0.01	0.01	0.02
	Maximum	0.05	0.02	0.07	0.01	0.01	0.14
	N	5	5	5	5	5	5
	<MDL	2	3	0	4	0	0
Strontium	Average	2.7	1.4	2.3	3.0	2.1	2.5
	S.D.	1.3	0.1	0.5	1.0	0.3	0.6
	Minimum	1.2	1.3	1.7	1.2	1.8	1.8
	Maximum	4.4	1.6	2.9	3.8	2.5	3.4
	N	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0
Vanadium	Average	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	5	5	5	5
	<MDL	5	5	5	5	5	5

[1]All concentrations are in µg/g on a dry weight basis, unless specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance".

S.D.=Standard deviation.

<MDL = inferior to the laboratory detection limit.

All statistics computed using concentration = 1* MDL for values <MDL.

APPENDIX C, TABLE 13

Detailed bog cranberry chemistry results for the EARMP community program, fall 2011.

Analyte[1]	Camsell Portage					Uraninum City				
	1	2	3	4	5	1	2	3	4	5
Metals										
Aluminum	17	17	19	19	16	20	29	15	19	27
Barium	14	13	14	15	9.1	13	9.1	11	9.4	13
Boron	9	8	8	10	9	10	9	8	14	10
Cadmium	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Copper	4.5	4.2	4.8	4.9	3.6	5.9	3.6	2.6	2.6	3.2
Iron	9.7	9.7	10	10	11	16	20	9.5	13	14
Lead	<0.01	<0.01	<0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.02
Manganese	110	120	100	100	80	150	110	300	210	220
Molybdenum	0.1	0.1	0.2	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nickel	0.46	0.46	0.49	0.65	0.37	1.1	0.8	0.28	0.5	0.42
Selenium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Tin	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Titanium	0.06	0.06	<0.05	0.08	0.17	0.07	0.47	0.06	0.18	0.14
Uranium	0.01	<0.01	0.01	<0.01	0.02	0.01	0.02	<0.01	0.01	<0.01
Zinc	6.6	6.4	6.5	6.7	5.3	8.9	7.3	5.7	5.2	6.8
Physical Properties										
Moisture (%)	87.53	87.36	87.13	86.87	86.78	88.39	87.69	87.22	86.9	87.44
Radionuclides										
Lead-210 (Bq/g)	0.007	0.006	0.020	0.013	0.018	0.005	0.005	0.016	0.010	0.016
Polonium-210 (Bq/g)	0.003	0.002	0.001	0.002	0.003	0.003	0.003	0.013	0.002	0.005
Radium-226 (Bq/g)	0.004	0.002	0.006	0.004	0.002	0.002	0.007	<0.0009	<0.0009	<0.0009
Thorium-230 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements										
Antimony	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Arsenic	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.01	0.01	0.01	0.01	0.01	0.02	0.14	0.02	0.02	0.02
Strontium	2.3	2	2.1	2.5	1.8	3.4	2.5	2.5	2.4	1.8
Vanadium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1

[1]All concentrations are in µg/g dry weight, unless specified otherwise.

APPENDIX C, TABLE 14

Detailed barren-ground caribou meat chemistry results for the EARMP community program, winter 2011/2012.

Analyte[1]	Black Lake					Fond du Lac					Wollaston Lake/Hatchet Lake				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals															
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.2	0.03	0.04	0.03	0.25	0.08	0.02	0.03	0.04	0.02	0.04	0.09	0.03	0.04	0.09
Boron	0.7	0.2	0.6	<0.2	0.9	0.4	0.5	0.3	0.2	<0.2	0.4	<0.2	0.4	0.3	0.4
Cadmium	0.002	0.004	0.002	<0.002	<0.002	0.004	0.002	0.003	0.002	<0.002	0.005	0.008	0.002	0.004	0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	<0.1
Copper	4.3	2.6	3	3	3.3	3.9	2.3	2.2	4.1	3.1	3.1	3.2	2.5	3.9	3.1
Iron	43	29	40	38	45	48	31	29	48	32	37	35	26	45	29
Lead	0.013	<0.002	0.008	<0.002	0.005	0.008	<0.002	<0.002	<0.002	<0.002	0.013	0.002	<0.002	0.046	0.051
Manganese	0.45	0.29	0.35	0.38	0.42	0.39	0.26	0.25	0.43	0.32	0.35	0.29	0.25	0.53	0.33
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.01	<0.01	<0.01	0.02	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Selenium	0.15	0.2	0.21	0.19	0.2	0.15	0.15	0.15	0.18	0.15	0.15	0.17	0.17	0.19	0.13
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.08	0.08	0.07	0.07	0.08	0.08	0.08	0.07	0.08	0.09	0.07	0.07	0.07	0.07	0.07
Uranium	<0.001	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	17	31	21	16	29	22	56	59	16	49	33	30	30	20	29
Physical Properties															
Moisture (%)	74.06	74.11	74.21	73.58	72.53	71.24	76.19	74.05	73.91	73.77	74.5	73.6	75.2	74.14	75.2
Radionuclides															
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.011	0.0095	0.0083	0.01	0.011	0.0042	0.0084	0.0098	0.0096	0.0021	0.016	0.013	0.011	0.015	0.011
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	<0.00006	<0.00006	<0.00005	0.0002	0.0001	<0.00004	0.00008	<0.00006	<0.00007	<0.00006	<0.00006	<0.00005
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	0.0003	<0.0002	<0.00008	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elemements															
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.02	0.01	0.02	0.02	0.02	<0.01	<0.01	<0.01	0.02	0.02	<0.01	<0.01	0.01	0.02	0.02
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.005	0.004	0.003	0.003	0.003	0.004	0.006	0.006	0.003	0.003	0.003	0.003	0.007	0.005	0.004
Strontium	0.03	0.03	0.02	0.02	0.03	0.07	0.05	0.06	0.05	0.03	0.04	0.03	0.03	0.02	0.03
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are in µg/g on a wet weight basis, except when specified otherwise.

APPENDIX C, TABLE 15

Barren-ground caribou meat chemistry detailed descriptive statistics, winter 2011/2012.

Analyte[1]	Data	Black Lake	Fond du Lac	Wollaston Lake
Metals				
Aluminum	Average	0.5	0.5	0.5
	S.D.	0	0	0
	MDL	5	5	5
	Minimum	0.5	0.5	0.5
	Maximum	0.5	0.5	0.5
Barium	Average	0.110	0.038	0.058
	S.D.	0.107	0.025	0.029
	<MDL	0	0	0
	Minimum	0.03	0.02	0.03
	Maximum	0.25	0.08	0.09
Boron	Average	0.52	0.32	0.34
	S.D.	0.31	0.13	0.09
	<MDL	1	1	1
	Minimum	0.2	0.2	0.2
	Maximum	0.9	0.5	0.4
Cadmium	Average	0.0024	0.0026	0.0042
	S.D.	0.0009	0.0009	0.0025
	<MDL	2	1	0
	Minimum	0.002	0.002	0.002
	Maximum	0.004	0.004	0.008
Chromium	Average	0.10	0.14	0.12
	S.D.	0	0.09	0.04
	<MDL	5	4	4
	Minimum	0.1	0.1	0.1
	Maximum	0.1	0.3	0.2
Copper	Average	3.2	3.1	3.2
	S.D.	0.6	0.9	0.5
	<MDL	0	0	0
	Minimum	2.6	2.2	2.5
	Maximum	4.3	4.1	3.9
Iron	Average	39	38	34
	S.D.	6	10	7
	<MDL	0	0	0
	Minimum	29	29	26
	Maximum	45	48	45
Lead	Average	0.006	0.003	0.023
	S.D.	0.005	0.003	0.024
	<MDL	2	4	1
	Minimum	0.002	0.002	0.002
	Maximum	0.013	0.008	0.051

APPENDIX C, TABLE 15

Barren-ground caribou meat chemistry detailed descriptive statistics, winter 2011/2012.

Analyte[1]	Data	Black Lake	Fond du Lac	Wollaston Lake
Manganese	Average	0.378	0.330	0.350
	S.D.	0.062	0.079	0.108
	<MDL	0	0	0
	Minimum	0.29	0.25	0.25
	Maximum	0.45	0.43	0.53
Molybdenum	Average	0.02	0.02	0.02
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02
Nickel	Average	0.014	0.024	0.010
	S.D.	0.005	0.031	0
	<MDL	2	4	5
	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.08	0.01
Selenium	Average	0.190	0.156	0.162
	S.D.	0.023	0.013	0.023
	<MDL	0	0	0
	Minimum	0.15	0.15	0.13
	Maximum	0.21	0.18	0.19
Silver	Average	0.002	0.002	0.002
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002
Thallium	Average	0.01	0.01	0.01
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01
Titanium	Average	0.076	0.080	0.070
	S.D.	0.005	0.007	0
	<MDL	0	0	0
	Minimum	0.07	0.07	0.07
	Maximum	0.08	0.09	0.07
Uranium	Average	0.001	0.001	0.001
	S.D.	0	0	0
	<MDL	4	5	5
	Minimum	0.001	0.001	0.001
	Maximum	0.001	0.001	0.001

APPENDIX C, TABLE 15

Barren-ground caribou meat chemistry detailed descriptive statistics, winter 2011/2012.

Analyte[1]	Data	Black Lake	Fond du Lac	Wollaston Lake
Zinc	Average	23	40	28
	S.D.	7	20	5
	<MDL	0	0	0
	Minimum	16	16	20
	Maximum	31	59	33
Physical Properties				
Moisture (%)	Average	74	74	75
	S.D.	1	2	1
	<MDL	0	0	0
	Minimum	73	71	74
	Maximum	74	76	75
Radionuclides				
Lead-210 (Bq/g)	Average	0.001	0.001	0.001
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.001	0.001	0.001
	Maximum	0.001	0.001	0.001
Polonium-210 (Bq/g)	Average	0.0100	0.0068	0.0132
	S.D.	0.0011	0.0035	0.0023
	<MDL	0	0	0
	Minimum	0.0083	0.0021	0.0110
	Maximum	0.0110	0.0098	0.0160
Radium-226 (Bq/g)	Average	0.00006	0.00009	0.00006
	S.D.	0	0.00006	0.00001
	<MDL	5	2	5
	Minimum	0.00006	0.00004	0.00005
	Maximum	0.00006	0.00020	0.00007
Thorium-230 (Bq/g)	Average	0.00010	0.00016	0.00010
	S.D.	0	0.00009	0
	<MDL	5	4	5
	Minimum	0.00010	0.00008	0.00010
	Maximum	0.00010	0.00030	0.00010
Trace Elements				
Antimony	Average	0.02	0.02	0.02
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02
Arsenic	Average	0.018	0.014	0.014
	S.D.	0.004	0.005	0.005
	<MDL	0	3	2
	Minimum	0.01	0.01	0.01
	Maximum	0.02	0.02	0.02

APPENDIX C, TABLE 15

Barren-ground caribou meat chemistry detailed descriptive statistics, winter 2011/2012.

Analyte[1]	Data	Black Lake	Fond du Lac	Wollaston Lake
Beryllium	Average	0.002	0.002	0.002
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002
Cobalt	Average	0.0036	0.0044	0.0044
	S.D.	0.0009	0.0015	0.0017
	<MDL	0	0	0
	Minimum	0.003	0.003	0.003
	Maximum	0.005	0.006	0.007
Strontium	Average	0.026	0.052	0.030
	S.D.	0.005	0.015	0.007
	<MDL	0	0	0
	Minimum	0.02	0.03	0.02
	Maximum	0.03	0.07	0.04
Vanadium	Average	0.02	0.02	0.02
	S.D.	0	0	0
	<MDL	5	5	5
	Minimum	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02

[1]All concentrations are in µg/g on a wet weight basis, except when specified otherwise.

[2]S.D. of 0 signifies "no variance between samples", not "a very small variance".

S.D.=Standard deviation.

<MDL = inferior to the laboratory detection limit.

Dash indicates data could not be computed.

All statistics computed using concentration = 1* MDL for values <MDL.

APPENDIX C, TABLE 16

Detailed moose meat chemistry results for the EARMP community program, winter 2011/2012.

Analyte[1]	Uranium City				Camsell Portage			
	Mackintosh Bay	Deadman Channel	Melville Lake	Orbit Bay	1	2	3	4
Metals								
Aluminum	2.5	<0.5	<0.5	<0.5	1.5	3.0	<0.5	3.8
Barium	0.03	0.02	<0.01	0.02	0.04	0.15	0.03	0.02
Boron	<0.2	<0.5	<0.2	<0.2	0.3	<0.2	<0.2	<0.2
Cadmium	0.003	<0.005	0.002	0.004	<0.002	0.006	0.002	<0.002
Chromium	<0.1	<0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	1.3	1.8	3.8	1.7	2.0	1.2	1.8	1.6
Iron	30	25	42	42	21	25	25	29
Lead	<0.002	<0.005	<0.002	<0.002	0.018	0.019	<0.002	0.002
Manganese	0.16	0.16	0.33	0.14	0.20	0.18	0.21	0.13
Molybdenum	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.01	0.02	0.02	<0.01	0.02	0.02	<0.01	<0.01
Selenium	0.11	0.16	0.18	0.09	0.20	0.06	0.10	0.12
Silver	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.14	0.08	0.10	0.13	0.09	0.25	0.09	0.08
Uranium	<0.001	<0.002	<0.001	0.001	<0.001	<0.001	<0.001	<0.001
Zinc	50	49	31	49	24	38	47	45
Physical Properties								
Moisture (%)	74.4	72.4	72.7	73.8	75.0	73.9	75.0	75.1
Radionuclides								
Lead-210 (Bq/g)	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.0003
Polonium-210 (Bq/g)	<0.0002	0.0005	0.0023	0.0003	0.0019	0.0004	0.0003	-
Radium-226 (Bq/g)	<0.00006	<0.0001	<0.00006	<0.00007	<0.00008	<0.00007	0.00010	<0.00006
Thorium-230 (Bq/g)	<0.0001	<0.0002	<0.0001	<0.0001	<0.0002	<0.0001	<0.0001	-
Trace Elements								
Antimony	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	<0.01	<0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Beryllium	<0.002	<0.005	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.013	0.014	0.003	0.017	0.014	0.011	0.022	0.010
Strontium	<0.02	<0.05	0.04	0.03	0.10	0.06	0.03	0.02
Vanadium	<0.02	<0.05	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

Dashes indicate no data.

APPENDIX C, TABLE 17

Moose meat chemistry detailed descriptive statistics, winter 2011/2012.

Analyte[1]	Uranium City						Camsell Portage					
	Average	S.D.	Minimum	Maximum	N	<MDL	Average	S.D.	Minimum	Maximum	N	<MDL
Metals												
Aluminum	1.0	1.0	0.5	2.5	4	3	2.2	1.5	0.5	3.8	4	1
Barium	0.020	0.008	0.010	0.030	4	1	0.060	0.061	0.020	0.150	4	0
Boron	0.3	0.15	0.2	0.5	4	4	0.2	0.05	0.2	0.3	4	3
Cadmium	0.004	0.001	0.002	0.005	4	1	0.003	0.002	0.002	0.006	4	2
Chromium	0.1	0.05	0.1	0.2	4	4	0.1	0	0.1	0.1	4	4
Copper	2.2	1.1	1.3	3.8	4	0	1.7	0.3	1.2	2.0	4	0
Iron	34.8	8.6	25.0	42.0	4	0	25.0	3.3	21.0	29.0	4	0
Lead	0.003	0.002	0.002	0.005	4	4	0.010	0.010	0.002	0.019	4	1
Manganese	0.20	0.09	0.14	0.33	4	0	0.18	0.04	0.13	0.21	4	0
Molybdenum	0.028	0.015	0.020	0.050	4	4	0.020	0	0.020	0.020	4	4
Nickel	0.015	0.006	0.010	0.020	4	1	0.015	0.006	0.010	0.020	4	2
Selenium	0.14	0.04	0.09	0.18	4	0	0.12	0.06	0.06	0.20	4	0
Silver	0.003	0.002	0.002	0.005	4	4	0.002	0	0.002	0.002	4	4
Thallium	0.013	0.005	0.010	0.020	4	4	0.010	0	0.010	0.010	4	4
Tin	0.013	0.005	0.010	0.020	4	4	0.010	0	0.010	0.010	4	4
Titanium	0.11	0.03	0.08	0.14	4	0	0.13	0.08	0.08	0.25	4	0
Uranium	0.0013	0.0005	0.0010	0.0020	4	3	0.0010	0	0.0010	0.0010	4	4
Zinc	44.8	9.2	31.0	50.0	4	0	38.5	10.4	24.0	47.0	4	0
Physical Properties												
Moisture (%)	73.3	1.0	72.4	74.4	4	0	74.8	0.6	73.9	75.1	4	0
Radionuclides												
Lead-210 (Bq/g)	0.0013	0.0005	0.0010	0.0020	4	3	0.0008	0.0004	0.0003	0.0010	4	4
Polonium-210 (Bq/g)	0.0008	0.0010	0.0002	0.0023	4	1	0.0009	0.0009	0.0003	0.0019	4	0
Radium-226 (Bq/g)	0.00007	0.00002	0.00006	0.00010	4	4	0.00008	0.00002	0.00006	0.00010	4	3
Thorium-230 (Bq/g)	0.00013	0.00005	0.00010	0.00020	4	4	0.00013	0.00006	0.00010	0.00020	4	3
Trace Elements												
Antimony	0.03	0.02	0.02	0.05	4	4	0.02	0	0.02	0.02	4	4
Arsenic	0.013	0.005	0.010	0.020	4	3	0.010	0	0.010	0.010	4	4
Beryllium	0.0028	0.0015	0.0020	0.0050	4	4	0.0020	0	0.0020	0.0020	4	4
Cobalt	0.012	0.006	0.003	0.017	4	0	0.014	0.005	0.010	0.022	4	0
Strontium	0.04	0.01	0.02	0.05	4	2	0.05	0.04	0.02	0.10	4	0
Vanadium	0.03	0.02	0.02	0.05	4	4	0.02	0	0.02	0.02	4	4

[1]All concentrations are reported on a µg/g wet weight basis, except when specified otherwise.

S.D. = Standard deviation.

<MDL = inferior to the laboratory detection limit.

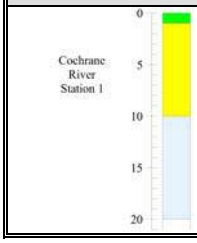
All statistics computed using concentration = 1* MDL for values <MDL.

APPENDIX D

SEDIMENT CORE LOGS

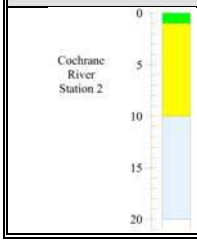
Project Number 1489
Station Number 1
Personnel PC/SP
Equipment Tech Ops

Waterbody Cochrane River
Date September 26 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-1	Brown-Orange	Soft	Smooth	Yes	-	-
	1-10	Dark Gray with Black Speckles	Soft	Smooth	Yes	-	-
	10-20	Medium Gray	Soft	Smooth	No	-	-

Project Number 1489
Station Number 2
Personnel PC/SP
Equipment Tech Ops

Waterbody Cochrane River
Date September 26 2011
Time
Temperature °C

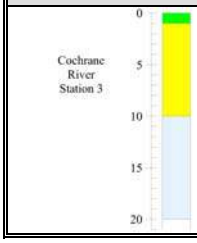
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-1	Brown-Orange	Soft	Smooth	Yes	-	-
	1-10	Dark Gray with Black Speckles	Soft	Smooth	Yes	-	-
	10-20	Medium Gray	Soft	Smooth	No	-	-


Cochrane River, Area 1 Station 1


Cochrane River, Area 1 Station 2

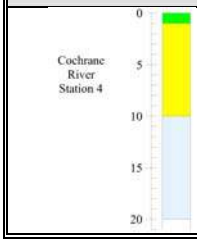
Project Number 1489
Station Number 3
Personnel PC/SP
Equipment Tech Ops

Waterbody Cochrane River
Date September 26 2011
Time
Temperature °C

Core Horizons (cm)		Colour	Consistency	Texture	Organics	Odour	Comments
	0-1	Brown-Orange	Soft	Smooth	Yes	-	-
	1-10	Dark Gray with Black Speckles	Soft	Smooth	Yes	-	-
	10-20	Medium Gray	Soft	Smooth	No	-	-

Project Number 1489
Station Number 4
Personnel PC/SP
Equipment Tech Ops

Waterbody Cochrane River
Date September 26 2011
Time
Temperature °C

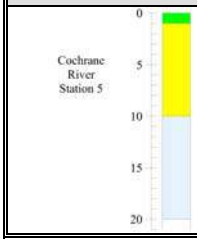
Core Horizons (cm)		Colour	Consistency	Texture	Organics	Odour	Comments
	0-1	Brown-Orange	Soft	Smooth	Yes	-	-
	1-10	Dark Gray with Black Speckles	Soft	Smooth	Yes	-	-
	10-20	Medium Gray	Soft	Smooth	No	-	-

Cochrane River, Area 1 Station 3

Cochrane River, Area 1 Station 4

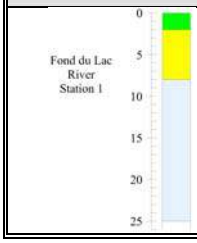
Project Number 1489
Station Number 5
Personnel PC/SP
Equipment Tech Ops

Waterbody Cochrane River
Date September 26 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-1	Brown-Orange	Soft	Smooth	Yes	-	-
	1-10	Dark Gray with Black Speckles	Soft	Smooth	Yes	-	-
	10-20	Medium Gray	Soft	Smooth	No	-	-

Project Number 1489
Station Number 1
Personnel PC/RF
Equipment Tech Ops

Waterbody Fond du Lac River
Date October 26 2011
Time
Temperature °C

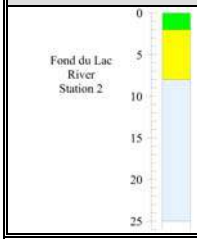
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray/Rusty-Brown	Soft	Fine-Silty	Yes	-	-
	2-8	Gray	Soft	Silty	No	-	-
	8-25	Gray	Medium-Soft	Silty	No	-	-


Cochrane River, Area 1 Station 5


Fond du Lac River, Area 1 Station 1

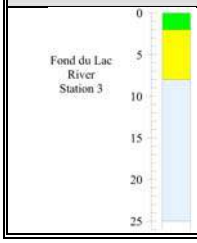
Project Number 1489
Station Number 2
Personnel PC/RF
Equipment Tech Ops

Waterbody Fond du Lac River
Date October 26 2011
Time
Temperature °C

Core Horizons (cm)		Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray/Rusty-Brown	Soft	Fine-Silty	Yes	-	-
	2-8	Gray	Soft	Silty	No	-	-
	8-25	Gray	Medium-Soft	Silty	No	-	-

Project Number 1489
Station Number 3
Personnel PC/RF
Equipment Tech Ops

Waterbody Fond du Lac River
Date October 26 2011
Time
Temperature °C

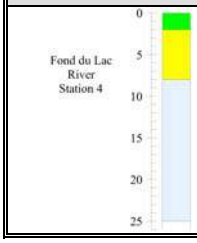
Core Horizons (cm)		Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray/Rusty-Brown	Soft	Fine-Silty	Yes	-	-
	2-8	Gray	Soft	Silty	No	-	-
	8-25	Gray	Medium-Soft	Silty	No	-	-


Fond du Lac River, Area 1 Station 2


Fond du Lac River, Area 1 Station 3

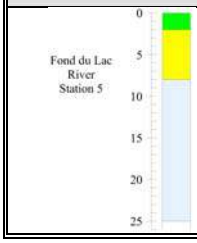
Project Number 1489
Station Number 4
Personnel PC/RF
Equipment Tech Ops

Waterbody Fond du Lac River
Date October 28 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray/Rusty-Brown	Soft	Fine-Silty	Yes	-	-
	2-8	Gray	Soft	Silty	No	-	-
	8-25	Gray	Medium-Soft	Silty	No	-	-

Project Number 1489
Station Number 5
Personnel PC/RF
Equipment Tech Ops

Waterbody Fond du Lac River
Date October 28 2011
Time
Temperature °C

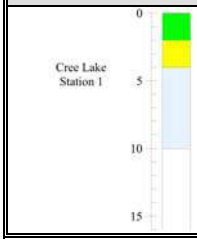
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray/Rusty-Brown	Soft	Fine-Silty	Yes	-	-
	2-8	Gray	Soft	Silty	No	-	-
	8-25	Gray	Medium-Soft	Silty	No	-	-


Fond du Lac River, Area 1 Station 4


Fond du Lac River, Area 1 Station 5

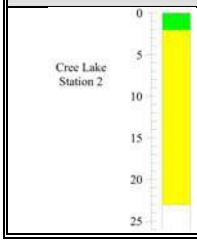
Project Number 1489
Station Number 1
Personnel PC/SP
Equipment Tech Ops

Waterbody Cree Lake
Date September 28 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Brown	Soft	Fine-Silty	Yes	-	Wood Debris in Small Amounts
	2-4	Gray	Medium-Soft	Silty	No	-	-
	4-10	Rusty	Medium-Soft	Silty	No	-	-

Project Number 1489
Station Number 2
Personnel PC/SP
Equipment Tech Ops

Waterbody Cree Lake
Date September 28 2011
Time
Temperature °C

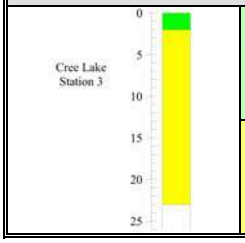
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray-Brown	Soft	Floculent	Yes	-	Lots of Black Dots
	2-23	Gray-Brown	Medium-Soft	Silt-Sand	Yes	-	A Few Black Dots


Cree Lake, Area 1 Station 1


Cree Lake, Area 1 Station 2

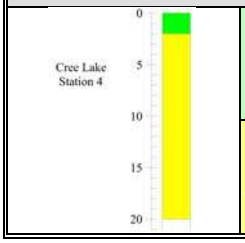
Project Number 1489
Station Number 3
Personnel PC/SP
Equipment Tech Ops

Waterbody Cree Lake
Date September 28 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray-Brown	Soft	Floculent	Yes	-	Lots of Black Dots
	2-23	Gray-Brown	Medium-Soft	Silt-Sand	Yes	-	A Few Black Dots

Project Number 1489
Station Number 4
Personnel PC/SP
Equipment Tech Ops

Waterbody Cree Lake
Date September 28 2011
Time
Temperature °C

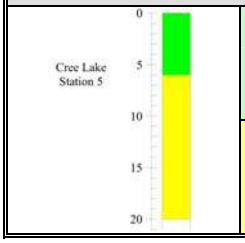
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Rusty-Brown-Gray	Soft	Smooth	Yes	-	-
	2-20	Gray with Black Dots	Medium-Soft	Silt-Sand	Yes	-	-


Cree Lake, Area 1 Station 3


Cree Lake, Area 1 Station 4

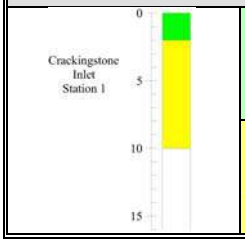
Project Number 1489
Station Number 5
Personnel PC/SP
Equipment Tech Ops

Waterbody Cree Lake
Date September 28 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-6	Brown-Beige	Soft	Smooth	Yes	-	-
	6-20	Beige-Gray	Medium-Soft	Silt-Sand	Yes	-	-

Project Number 1489
Station Number 1
Personnel PC/SP
Equipment Tech Ops

Waterbody Crackingstone Inlet
Date October 2 2011
Time
Temperature °C

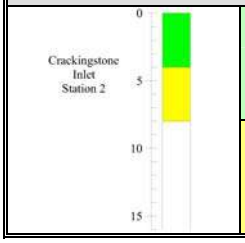
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orangish-Brown	Medium-Soft	Silty	No	-	-
	2-10	Gray-Brown	Hard	Clayish	No	-	-


Cree Lake, Area 1 Station 5


Crackingstone Inlet (Lake Athabasca), Area 1 Station 1

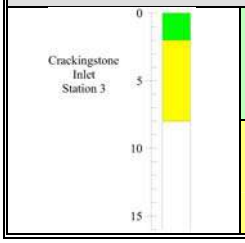
Project Number 1489
Station Number 2
Personnel PC/SP
Equipment Tech Ops

Waterbody Crackingstone Inlet
Date October 2 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-4	Orangish-Brown	Medium-Soft	Silty	No	-	-
	4-8	Gray-Brown	Hard	Clayish	No	-	-

Project Number 1489
Station Number 3
Personnel PC/SP
Equipment Tech Ops

Waterbody Crackingstone Inlet
Date October 2 2011
Time
Temperature °C

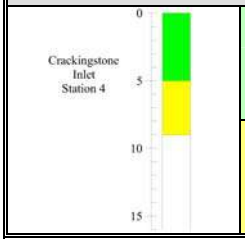
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orangish-Brown	Medium-Soft	Silty	No	-	-
	2-8	Gray-Brown	Hard	Clayish	No	-	-

Crackingstone Inlet (Lake Athabasca), Area 1 Station 2

Crackingstone Inlet (Lake Athabasca), Area 1 Station 3

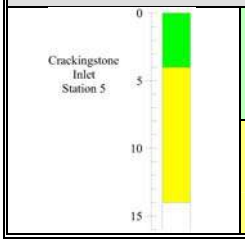
Project Number 1489
Station Number 4
Personnel PC/SP
Equipment Tech Ops

Waterbody Crackingstone Inlet
Date October 2 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-5	Orangish-Brown	Medium-Soft	Silty	No	-	-
	5-9	Gray-Brown	Hard	Clayish	No	-	-

Project Number 1489
Station Number 5
Personnel PC/SP
Equipment Tech Ops

Waterbody Crackingstone Inlet
Date October 2 2011
Time
Temperature °C

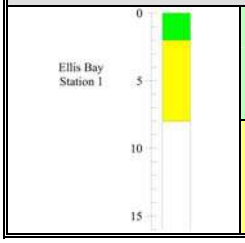
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-4	Orangish-Brown	Medium-Soft	Silty	No	-	-
	4-14	Gray-Brown	Hard	Clayish	No	-	-

Crackingstone Inlet (Lake Athabasca), Area 1 Station 4

Crackingstone Inlet (Lake Athabasca), Area 1 Station 5

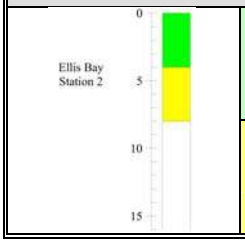
Project Number 1489
Station Number 1
Personnel PC/RF
Equipment Tech Ops

Waterbody Ellis Bay
Date October 4 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orange and Greenish	Soft	Medium-Floculent	Yes	-	-
	2-8	Medium-Gray	Soft	Silt-Clay	Some	-	-

Project Number 1489
Station Number 2
Personnel PC/RF
Equipment Tech Ops

Waterbody Ellis Bay
Date October 4 2011
Time
Temperature °C

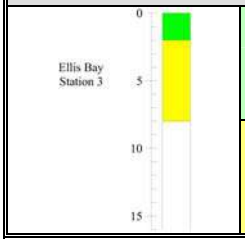
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-4	Orangish-Beige with Gray	Soft	Smooth	Yes	-	-
	2-8	Medium-Gray	Medium-Soft	Silt-Clayish	Yes	-	-

Ellis Bay (Lake Athabasca), Area 1 Station 1

Ellis Bay (Lake Athabasca), Area 1 Station 2

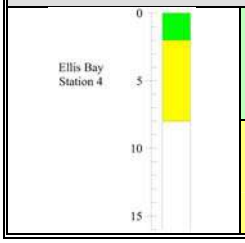
Project Number 1489
Station Number 3
Personnel PC/RF
Equipment Tech Ops

Waterbody Ellis Bay
Date October 4 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orange and Greenish	Soft	Medium-Floculent	Yes	-	-
	2-8	Medium-Gray	Soft	Silt-Clay	Some	-	-

Project Number 1489
Station Number 4
Personnel PC/RF
Equipment Tech Ops

Waterbody Ellis Bay
Date October 5 2011
Time
Temperature °C

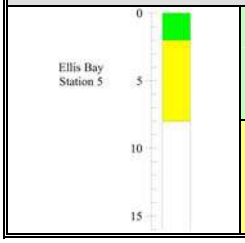
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orange and Greenish	Soft	Medium-Floculent	Yes	-	-
	2-8	Medium-Gray	Soft	Silt-Clay	Some	-	-

Ellis Bay (Lake Athabasca), Area 1 Station 3

Ellis Bay (Lake Athabasca), Area 1 Station 4

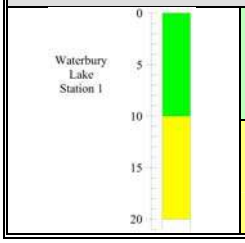
Project Number 1489
Station Number 5
Personnel PC/RF
Equipment Tech Ops

Waterbody Ellis Bay
Date October 5 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Orange and Greenish	Soft	Medium-Floculent	Yes	-	-
	2-8	Medium-Gray	Soft	Silt-Clay	Some	-	-

Project Number 1489
Station Number 1
Personnel PC/SP
Equipment Tech Ops

Waterbody Waterbury Lake
Date September 22 2011
Time
Temperature °C

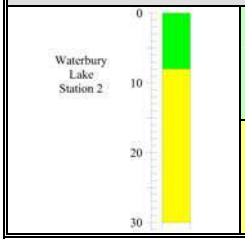
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-10	Brown Mottled with Pale Gray	Soft	Smooth-Sandy	No	-	-
	10-20	Pale-Gray	Compact	Clayish-Sandy	No	-	-


Ellis Bay (Lake Athabasca), Area 1 Station


Waterbury Lake, Area 1 Station 1

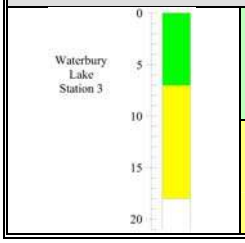
Project Number 1489
Station Number 2
Personnel PC/SP
Equipment Tech Ops

Waterbody Waterbury Lake
Date September 22 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-8	Brown Mottled with Pale Gray	Soft	Smooth-Sandy	No	-	-
	8-30	Pale-Gray	Compact	Clayish-Sandy	No	-	-

Project Number 1489
Station Number 3
Personnel PC/SP
Equipment Tech Ops

Waterbody Waterbury Lake
Date September 22 2011
Time
Temperature °C

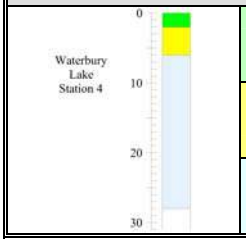
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-7	Dark Beige	Soft	Smooth-Sandy	No	-	-
	7-18	Gray	Medium-Hard	Clayish-Sandy	No	-	-


Waterbury Lake, Area 1 Station 2


Waterbury Lake, Area 1 Station 3

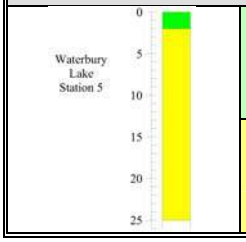
Project Number 1489
Station Number 4
Personnel PC/SP
Equipment Tech Ops

Waterbody Waterbury Lake
Date September 23 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Brown	Soft	Smooth-Sandy	Yes	-	-
	2-6	Brown-Gray	Medium-Hard	Sandy-Clayish	No	-	-
	6-28	Gray	Medium-Hard	Clayish-Sandy	No	-	-

Project Number 1489
Station Number 5
Personnel PC/SP
Equipment Tech Ops

Waterbody Waterbury Lake
Date September 23 2011
Time
Temperature °C

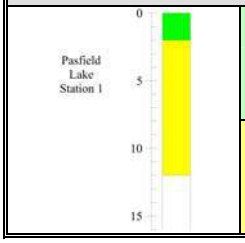
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Brown	Soft	Smooth-Sandy	Yes	-	-
	2-25	Gray	Medium-Compact	Clayish-Sandy	No	-	-


Waterbury Lake, Area 1 Station 4


Waterbury Lake, Area 1 Station 5

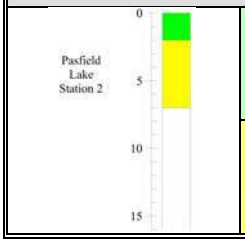
Project Number 1489
Station Number 1
Personnel PC/SP
Equipment Tech Ops

Waterbody Pasfield Lake
Date September 24 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Dingy-Brown	Soft	Floculent	Yes	-	-
	2-12	Dark Gray mottled with Beige	Medium-Hard	Silty-Sandy	No	-	-

Project Number 1489
Station Number 2
Personnel PC/SP
Equipment Tech Ops

Waterbody Pasfield Lake
Date September 24 2011
Time
Temperature °C

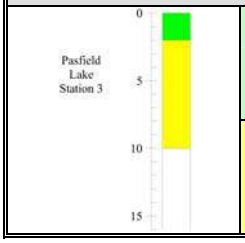
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray-Brown	Soft	Floculent	Yes	-	-
	2-7	Dark Gray mottled with Beige	Medium-Hard	Silt-Sand	No	-	-


Pasfield Lake, Area 1 Station 1


Pasfield Lake, Area 1 Station 2

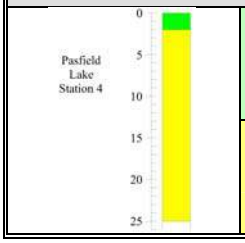
Project Number 1489
Station Number 3
Personnel PC/SP
Equipment Tech Ops

Waterbody Pasfield Lake
Date September 24 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Brown-Green	Soft	Floculent	Yes	-	-
	2-10	Beige	Medium-Hard	Sandy	No	-	-

Project Number 1489
Station Number 4
Personnel PC/SP
Equipment Tech Ops

Waterbody Pasfield Lake
Date September 24 2011
Time
Temperature °C

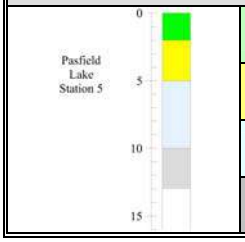
Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Brown-Dark Gray	Soft	Floculent	Yes	-	-
	2-25	Dark Gray	Medium-Soft	Silty-Sandy	No	-	-


Pasfield Lake, Area 1 Station 3


Pasfield Lake, Area 1 Station 4

Project Number 1489
Station Number 5
Personnel PC/SP
Equipment Tech Ops

Waterbody Pasfield Lake
Date September 24 2011
Time
Temperature °C

Core Horizons (cm)	Colour	Consistency	Texture	Organics	Odour	Comments
	0-2	Gray-Brown	Soft	Floculent	Yes	-	-
	2-5	Dark Gray-Beige	Medium-Hard	Sandy-Silty	Yes	-	-
	5-10	Beige	Medium-Hard	Sandy	No	-	-
	10-13	Gray	Medium-Hard	Sandy-Silt	No	-	-

Pasfield Lake, Area 1 Station 5

APPENDIX E

DETAILED BENTHIC INVERTEBRATE METHODS

BENTHIC MACROINVERTEBRATE TAXONOMIC IDENTIFICATION AND ENUMERATION METHODS

The individual samples are processed separately. Each sample is divided into the coarse and the fine fractions. The coarse fractions are sorted completely and the fine fractions are subsampled independently using a modification of the subsampling method (Wrona et al. 1982). The basic methodology is provided below.

Pre-Sort Washing

Pour sample into sieves (2 mm, 1 mm, 0.180 mm) and wash with running water to remove preservative (formalin not a concern in this case) and silt; if there are only small amounts of larger organic material, the 2 mm sieve can be omitted.

Transfer the coarse fraction (contents of the 2 mm and 1 mm sieves) into an individual container and add 70% alcohol. Label container with site number and fraction size. Now this fraction is ready for sorting.

Transfer the fine fraction (contents of 0.180 mm sieve) into a 2 L container for decanting. Add warm water to the 2 L container, swirl, and decant water and organic material into the 0.180 mm sieve, repeating until all organic material is washed out of the sand; then scan container under magnifying glass for heavy-shelled or stone-cased animals and pick them out; then discard sand and gravel. Transfer this fine fraction into an individual container and add 70% alcohol. Label container with site number and fraction size. Now this fraction is ready for sorting.

Sorting Coarse Fraction

The coarse fraction is sorted in its entirety. Sort out all organisms from the coarse fraction by the "grid method" and place them into properly labelled vials (if there are large numbers of Ephemeroptera, Plecoptera, Trichoptera or any other group place them in a separate vial). The grid method consists of a petri dish with a gridded bottom (1 cm x 1 cm). Add small amounts of organic material into the petri dish and pick out all benthic invertebrates with fine (#5) forceps under ~ 6 X magnification, proceeding row by row. Once done with a dish, re-mix material, and quickly re-scan to catch any animals that were missed.

Sorting Fine Fraction

In some situations there is very little organic material in the fine fractions and usually very few organisms, in which case subsampling as described below, is not required for the fine fractions. These samples would be picked in their entirety.

When there is a lot of organic material in the fine fractions and/or large numbers of organisms, a subsampling of the fine fractions is to be done based on the Wrona et al. (1982) method:

Pour contents of 0.180 mm fraction container into the Imhoff cone and ensure that all material is transferred from the container. Fill the cone to the 1 L mark with diluted alcohol and allow bubbling for about 5 minutes to ensure thorough mixing. Remove ten 25 ml subsamples from the Imhoff cone with the 25 ml subsampler container and pour into gridded petri dishes (total volume of 250 ml removed). Examine each 25 ml subsample under the microscope (~12 X magnification) and go through each petri dish twice.

Generally, the recommended portion to subsample is a minimum of one-quarter (250 ml). However, if very large numbers of organisms are present the following guidelines are provided:

- if each 25 ml subsample contains 35 to 50 organisms, then do all ten 25 ml subsamples (total volume of 250 ml);

- if each 25 ml subsample contains 50 to 75 organisms, then do eight 25 ml subsamples (total volume of 200 ml);

- if each 25 ml subsample contains 75 to 100 organisms, then do five 25 ml subsamples (total volume of 125 ml);

- if each 25 ml subsample contains 100 to 150 organisms, then do four 25 ml subsamples (total volume of 100 ml);

for samples with very large number of organisms;

- if each 25 ml subsample contains > 150 organisms, contact the project manager for confirmation, prior to doing two 25 ml subsamples (total volume of 50 ml);for samples with very few organisms;

- if each 25 ml subsample contains less than 35 organisms, then do twenty 25 ml subsamples (total volume 500 ml).

Place the sorted and the unsorted material from the subsamples into separate containers for archiving and label them properly.

Taxonomic Identification

All organisms will be identified to the lowest practical taxonomic level (usually genus or species wherever feasible).

In most instances "identification to the lowest taxonomic level" is defined as:

Nematoda	phylum
Oligochaeta	family
Gastropoda	genus/species
Turbellaria	family
Hirudinea	species
Mollusca	genus/species
Hydracarina	leave at this level
Cladocera	leave at this level
Copepoda	order
Ostracoda	leave at this level
Amphipoda	genus
Insecta	genus/species
Terrestrial	leave at this level

Organisms that cannot be identified to the desired level of taxonomic precision (e.g., immatures or damaged) will be reported as a separate category (at the finest level of taxonomic resolution possible). Organisms which require detailed microscopic examination for identification (e.g., Chironomidae and Oligochaeta) will be mounted onto microscope slides using an appropriate mounting medium (e.g., Canada balsam, Permount, Hohers's). The most common species may

be distinguishable on the basis of gross morphology and may require only a few mounts (5 to 10) as checks. All rare or less commonly occurring species are mounted for identification.

A reference collection is provided of all taxa identified from the samples. These collections are retained for taxonomic verification, ensuring consistent taxonomy and for quality control checks. They are stored in individual glass jars with rubber lined metal lids. All organisms will be identified to the desired taxonomic level using current literature and nomenclature.

QA/QC for Benthic Invertebrate Taxonomic Enumeration

Dr. Jack Zloty follows the QA/QC procedures outlined in: "Revised guidance for sorting and subsampling protocols for EEM benthic invertebrate community surveys" by Glozier et al. (2002). In addition, reference collections are maintained and recent taxonomic keys are followed in the identification process. Details on the QA/QC methods employed are subsequently provided.

Sorting Efficiency

To assess sorting efficiency, at least 10% of all samples from each study are re-sorted and any organisms found on the second sort are enumerated. The criteria for an acceptable sort is that 90% of the total number of organisms are recovered during the initial sort (Glozier et al. 2002). If > 10% of the total number of organisms are found during the re-sort, then all the samples within the particular group require re-sorting. The sorting efficiency will be calculated and reported for each sample.

Reference Collection

A reference collection is provided for all taxa identified from the samples. These collections are retained for taxonomic verification, ensuring consistent taxonomy, and for QC checks.

Rare and Damaged Organisms

Organisms that cannot be identified to the desired level of taxonomic precision (e.g., immatures or damaged) will be reported as a separate category (at the finest level of taxonomic resolution possible). Organisms which require detailed microscopic examination for identification (e.g., Chironomidae and Oligochaeta) will be mounted onto microscope slides using an appropriate

mounting medium (e.g., Canada balsam, Permount, Hohers). The most common species may be distinguishable on the basis of gross morphology and may require only a few mounts (5 to 10) as checks. All rare or less commonly occurring species are mounted for identification. A list of references used in taxonomic identification will be provided.

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APPENDIX F

TECHNICAL PROGRAM DETAILED DATA TABLES

LIST OF TABLES

APPENDIX F, TABLE 1

Detailed water chemistry results for the EARMP technical program, fall 2011.

Analyte[1]	Exposure		Reference	Exposure	Reference	Exposure	Reference
	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake
	26-Sep-11	26-Oct-11	28-Sep-11	02-Oct-11	04-Oct-11	22-Sep-11	24-Sep-11
Inorganic Ions							
Bicarbonate	20	21	12	30	34	7	6
Calcium	3.5	3.4	1.8	7.1	7	1.9	1.6
Carbonate	<1	<1	<1	<1	<1	<1	<1
Chloride	0.3	0.3	0.4	3.2	3	0.6	1.1
Hydroxide	<1	<1	<1	<1	<1	<1	<1
Magnesium	1	0.9	0.6	2.2	2	0.5	0.3
Potassium	0.6	0.6	0.4	0.9	0.9	0.5	0.4
Sodium	1.4	1.4	1.2	2.7	2.5	1.6	1.3
Sulfate	4.6	4.4	0.9	3.8	3.7	1.1	0.7
Metals							
Aluminum	0.0052	0.012	0.0024	0.012	0.0023	0.0009	<0.0005
Barium	0.0041	0.0046	0.0031	0.011	0.01	0.0027	0.0022
Boron	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01
Cadmium	<0.00001	0.00001	<0.00001	<0.00001	0.00002	0.00001	<0.00001
Chromium	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Copper	<0.0002	<0.0002	<0.0002	0.0002	<0.0002	<0.0002	<0.0002
Iron	0.025	0.030	0.025	0.020	0.007	0.012	0.003
Lead	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Manganese	0.0055	0.0064	0.0094	0.0012	0.0012	0.011	0.0012
Mercury (µg/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	0.0013	0.0012	<0.0001	0.0002	0.0002	0.0016	<0.0001
Nickel	<0.0001	<0.0001	<0.0001	0.0002	0.0002	0.0001	<0.0001
Selenium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Silver	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005	<0.00005
Thallium	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Tin	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Titanium	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0002
Uranium (µg/L)	<0.1	<0.1	<0.1	0.5	<0.1	<0.1	<0.1
Zinc	0.0078	<0.0005	0.001	<0.0005	<0.0005	0.0007	0.017
Nutrients							
Ammonia as nitrogen	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Nitrate	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04	<0.04
Organic carbon	2.4	2.9	1.8	2.8	2.8	1.8	0.7
Phosphorus	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Total Kjeldahl nitrogen	0.26	0.15	0.36	0.32	0.2	0.25	0.2
Total nitrogen	0.26	0.15	0.36	0.32	0.2	0.25	0.2
Physical Properties							
P. alkalinity	<1	<1	<1	<1	<1	<1	<1
pH (pH units)	7.12	7.18	6.96	7.46	7.44	6.97	6.87
Specific conductivity (µS/cm)	35	36	21	68	66	23	19
Sum of ions	31	32	17	50	53	13	11
Total alkalinity	16	17	10	25	28	6	5
Total dissolved solids	27	30	19	44	45	22	13
Total hardness	13	12	7	27	26	7	5
Total suspended solids	1	<1	1	<1	<1	<1	<1
Turbidity (NTU)	0.5	0.5	0.4	0.5	0.4	0.3	0.3
Radionuclides							
Lead-210 (Bq/L)	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Polonium-210 (Bq/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005

APPENDIX F, TABLE 1

Detailed water chemistry results for the EARMP technical program, fall 2011.

Analyte[1]	Exposure		Reference	Exposure	Reference	Exposure	Reference
	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake
	26-Sep-11	26-Oct-11	28-Sep-11	02-Oct-11	04-Oct-11	22-Sep-11	24-Sep-11
Radium-226 (Bq/L)	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
Thorium-230 (Bq/L)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Trace Elements							
Antimony	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Arsenic (µg/L)	0.1	<0.1	0.1	0.2	0.1	0.1	<0.1
Beryllium	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Cobalt	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Fluoride	0.06	0.06	0.03	0.06	0.06	0.03	0.03
Strontium	0.012	0.012	0.015	0.054	0.051	0.015	0.017
Vanadium	<0.0001	<0.0001	<0.0001	0.0002	<0.0001	<0.0001	<0.0001

[1]All values are in mg/L, unless specified otherwise.

APPENDIX F, TABLE 2

Detailed particle size and organic carbon content data for the EARMP technical program, fall 2011.

Physical Property[1]	Cochrane River					Fond du Lac River					Cree Lake				
	Exposure					Exposure					Reference				
	26-Sep-11					26-Oct-11			28-Oct-11		28-Sep-11				
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Clay	28.1	25.5	24.8	31.3	25.0	8.0	7.3	6.0	4.9	4.3	5.0	2.8	0.2	0.6	5.3
Silt	65.3	64.3	65.3	64.7	68.2	67.4	90.2	90.5	91.2	88.5	33.6	35.6	6.8	6.2	58.6
Fine Particles	93.4	89.8	90.1	96.0	93.2	75.4	97.5	96.5	96.1	92.8	38.6	38.4	7.0	6.8	63.9
Fine Sand	5.1	9.5	9.4	3.9	6.5	5.0	1.4	2.7	3.0	6.0	30.1	36.9	29.2	22.2	17.1
Coarse Sand	1.0	0.3	0.5	0.2	0.4	19.5	1.1	0.9	1.0	1.2	31.2	24.7	63.8	70.8	18.5
Total Sand	6.1	9.8	9.9	4.1	6.9	24.5	2.5	3.6	4.0	7.2	61.3	61.6	93.0	93.0	35.6
Gravel	0.4	0.5	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	<0.1	0.1	0.2	0.5
Moisture	69.3	73.1	66.4	72.9	69.5	-[2]	-[2]	-[2]	-[2]	-[2]	65.1	68.5	42.6	40.1	74.2
Organic Carbon	6.9	7.4	7.6	7.2	6.8	7.7	11.4	10.0	10.6	10.1	3.2	5.2	1.2	1.2	9.0

Physical Property[1]	Crackingstone Inlet					Ellis Bay				
	Exposure					Reference				
	02-Oct-11					04-Oct-11			05-Oct-11	
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Clay	3.7	3.1	5.1	6.5	12.3	37.8	43.8	39.7	35.4	36.3
Silt	43.7	52.9	40.8	58.7	68.5	60.3	55.2	59.5	64.3	63.4
Fine Particles	47.4	56.0	45.9	65.2	80.8	98.1	99.0	99.2	99.7	99.7
Fine Sand	42.7	37.8	42.8	29.1	18.2	1.2	0.8	0.5	0.1	0.1
Coarse Sand	10.0	6.2	11.3	5.7	1.0	0.7	0.2	0.3	0.2	0.1
Total Sand	52.7	44.0	54.1	34.8	19.2	1.9	1.1	0.8	0.3	0.2
Gravel	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Moisture	30.9	36.0	35.5	54.3	52.8	60.7	60.8	71.5	61.4	69.9
Organic Carbon	1.1	0.9	1.0	1.8	1.8	3.8	3.5	4.8	4.5	4.0

APPENDIX F, TABLE 2

Detailed particle size and organic carbon content data for the EARMP technical program, fall 2011.

Physical Property[1]	Waterbury Lake					Pasfield Lake				
	Exposure					Reference				
	22-Sep-11			23-Sep-11		24-Sep-11				
	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5	Sample 1	Sample 2	Sample 3	Sample 4	Sample 5
Clay	5.1	9.3	3.2	2.9	1.5	0.1	0.2	<0.1	5.1	0.1
Silt	21.9	18.8	7.3	8.9	6.7	2.3	2.0	1.0	15.5	0.5
Fine Particles	27.0	28.1	10.5	11.7	8.1	2.4	2.2	1.1	20.6	0.6
Fine Sand	27.1	32.9	20.4	38.2	24.0	15.8	14.7	10.5	24.1	11.2
Coarse Sand	45.7	39.0	68.8	50.1	67.9	81.7	82.9	88.3	55.3	88.1
Total Sand	72.8	71.9	89.2	88.3	91.9	97.5	97.6	98.8	79.4	99.3
Gravel	0.1	<0.1	0.4	<0.1	<0.1	0.1	0.3	0.2	<0.1	0.1
Moisture	57.0	63.5	42.7	53.5	56.3	44.6	38.8	41.9	66.4	26.6
Organic Carbon	2.8	5.1	2.1	2.8	2.4	1.4	1.4	1.4	5.8	0.6

[1]All concentrations are in % dry weight.

[2]Moisture not available for the Fond du Lac River samples.

APPENDIX F, TABLE 3

Particle size and organic carbon content descriptive statistics.

Waterbody	Data	Clay[1]	Silt	Fine Particles	Fine Sand	Coarse Sand	Total Sand	Gravel	Moisture	Organic Carbon
Cochrane River	Mean	26.9	65.6	92.5	6.9	0.5	7.3	0.2	70.2	7.2
	S.D.	2.8	1.5	2.6	2.5	0.3	2.5	0.2	2.8	0.3
	Minimum	24.8	64.3	89.8	3.9	0.2	4.1	0.1	66.4	6.8
	Maximum	31.3	68.2	96.0	9.5	1.0	9.9	0.5	73.1	7.6
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	3	0	0
Fond Du Lac River	Mean	6.1	85.6	91.6	3.6	4.7	8.4	0.1	-[2]	10.0
	S.D.	1.6	10.2	9.2	1.9	8.3	9.2	0[3]	-	1.4
	Minimum	4.3	67.4	75.4	1.4	0.9	2.5	0.1	-	7.7
	Maximum	8.0	91.2	97.5	6.0	19.5	24.5	0.1	-	11.4
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	5	-	0
Cree Lake	Mean	2.8	28.2	30.9	27.1	41.8	68.9	0.2	58.1	4.0
	S.D.	2.4	22.1	24.3	7.6	23.8	24.4	0.2	15.7	3.3
	Minimum	0.2	6.2	6.8	17.1	18.5	35.6	0.1	40.1	1.2
	Maximum	5.3	58.6	63.9	36.9	70.8	93.0	0.5	74.2	9.0
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	1	0	0
Crackingstone Inlet	Mean	6.1	52.9	59.1	34.1	6.8	40.9	0.1	41.9	1.3
	S.D.	3.7	11.3	14.4	10.5	4.0	14.4	0	10.8	0.4
	Minimum	3.1	40.8	45.9	18.2	1.0	19.2	0.1	30.9	0.9
	Maximum	12.3	68.5	80.8	42.8	11.3	54.1	0.1	54.3	1.8
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	5	0	0
Ellis Bay	Mean	38.6	60.5	99.1	0.6	0.3	0.9	0.1	64.9	4.1
	S.D.	3.3	3.6	0.7	0.5	0.2	0.7	0	5.4	0.5
	Minimum	35.4	55.2	98.1	0.1	0.1	0.2	0.1	60.7	3.5
	Maximum	43.8	64.3	99.7	1.2	0.7	1.9	0.1	71.5	4.8
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	5	0	0
Waterbury Lake	Mean	4.4	12.7	17.1	28.5	54.3	82.8	0.2	54.6	3.0
	S.D.	3.1	7.1	9.7	7.1	13.4	9.7	0.1	7.6	1.2
	Minimum	1.5	6.7	8.1	20.4	39.0	71.9	0.1	42.7	2.1
	Maximum	9.3	21.9	28.1	38.2	68.8	91.9	0.4	63.5	5.1
	N	5	5	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	3	0	0
Pasfield Lake	Mean	1.1	4.3	5.4	15.3	79.3	94.5	0.2	43.7	2.1
	S.D.	2.2	6.3	8.6	5.4	13.7	8.5	0.1	14.5	2.1
	Minimum	0.1	0.5	0.6	10.5	55.3	79.4	0.1	26.6	0.6
	Maximum	5.1	15.5	20.6	24.1	88.3	99.3	0.3	66.4	5.8
	N	5	5	5	5	5	5	5	5	5
	<MDL	1	0	0	0	0	0	1	0	0

[1]All values are in % dry weight.

[2]Moisture is not available for the Fond du Lac River samples.

S.D. = standard deviation.

APPENDIX F, TABLE 4

Detailed sediment chemistry results for the EARMP technical program, fall 2011.

Analyte[1]	Cochrane River					Fond du Lac River					Cree Lake					Crackingstone Inlet				
	26-Sep-11					26-Oct-11			28-Oct-11		28-Sep-11					02-Oct-11				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals																				
Aluminum	12000	12400	12200	12100	12100	14200	12600	12100	12900	13400	3600	3400	1200	1200	3300	8600	7900	7600	11800	12500
Barium	80	80	77	80	82	170	170	240	190	150	29	30	11	15	43	55	47	50	65	74
Boron	6	6	6	6	6	1	1	<1	1	<1	3	3	2	1	3	8	7	6	11	13
Cadmium	0.3	0.4	0.3	0.2	0.3	0.4	0.5	0.7	0.5	0.6	0.1	0.2	<0.1	<0.1	0.2	<0.1	<0.1	<0.1	0.1	0.1
Chromium	23	22	22	22	23	24	21	21	23	23	7.4	5.7	1.8	2.5	6	17	14	15	32	23
Copper	7.9	7.8	7.6	8.1	7.8	12	12	11	12	11	1.7	1.9	<0.5	0.7	2.3	3.6	2.7	2.7	7.7	6.6
Iron	16800	18200	18800	19300	20800	54300	49500	96900	80900	83400	7600	6000	1300	2100	6900	10600	9200	10100	15300	15200
Lead	11	10	9.2	9.6	9.3	7.9	13	11	13	12	2.8	3.7	1.2	1.5	4	4.4	4	4	11	7
Manganese	240	230	250	250	280	2440	2190	4510	3090	2840	260	280	83	140	290	220	180	210	220	370
Molybdenum	6.2	6.8	6.4	6.6	5.6	14	14	28	21	19	0.4	0.3	<0.1	0.1	0.3	0.5	0.4	0.5	1.4	0.8
Nickel	12	12	11	12	11	15	14	14	15	14	2.5	4.6	0.7	1.3	3.4	6.6	5.7	5.5	9.7	10
Selenium	0.6	0.6	0.6	0.7	0.5	0.9	1.2	1.1	1.1	1	0.5	0.3	<0.1	0.1	0.6	0.8	0.6	0.5	1.1	1.1
Silver	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	0.2	0.2	0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tin	1	0.8	0.8	0.7	0.8	0.7	0.6	0.6	0.7	0.7	0.2	0.2	<0.1	<0.1	0.2	0.4	0.4	0.3	0.6	0.6
Titanium	870	900	890	850	920	810	630	640	760	760	230	230	80	91	200	720	780	640	880	990
Uranium	4.6	4.4	4.2	4.4	4.3	5	5.2	5.5	5.8	5.1	0.3	0.3	<0.1	0.1	0.3	38	23	25	67	54
Zinc	43	42	41	41	41	88	68	75	75	83	9.7	13	3.7	5.3	15	15	14	14	22	23
Physical Properties																				
Loss on ignition (%)	16.28	16.18	14.79	17.3	16.41	21.45	25.12	23.88	24.04	22.19	7.33	10.23	1.93	4.6	13.82	2.46	1.86	1.83	3.73	4.15
Moisture (%)	90.61	91.54	91.15	92.45	92.14	89.5	91.38	90.8	90.97	89.64	84.98	88.22	50.44	75.27	90.9	43.06	38.59	34.9	57.78	64.65
Radionuclides																				
Lead-210 (Bq/g)	0.41	0.42	0.37	0.38	0.35	0.26	0.43	0.44	0.44	0.42	0.22	0.13	0.05	0.09	0.21	0.17	0.07	0.11	0.4	0.17
Polonium-210 (Bq/g)	0.43	0.42	0.31	0.35	0.37	0.35	0.44	0.57	0.45	0.46	0.14	0.16	0.04	0.1	0.27	0.14	0.12	0.13	0.47	0.21
Radium-226 (Bq/g)	0.04	0.05	0.06	<0.01	<0.01	0.12	0.06	0.06	0.02	0.04	<0.01	0.01	0.04	0.01	0.02	0.09	<0.01	0.01	0.51	0.1
Thorium-230 (Bq/g)	0.02	0.04	0.02	0.05	<0.02	0.04	0.06	0.04	<0.02	0.05	<0.02	<0.02	<0.02	<0.02	0.02	5	2.8	7.7	26	4.8
Trace Elements																				
Antimony	<0.2	<0.2	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arsenic	2.2	2.2	2	2	2.1	4.6	4.9	13	11	9.1	2	1.5	0.5	0.7	1.8	2.6	1.7	4.9	9.8	3.7
Beryllium	0.6	0.6	0.6	0.6	0.6	0.9	0.7	0.8	0.8	0.9	0.2	0.1	<0.1	<0.1	0.2	0.3	0.3	0.3	0.5	0.4
Cobalt	3.7	3.6	3.4	3.5	3.4	6.9	5.5	7.4	6.7	7.2	1.2	1.1	0.2	0.3	1.2	2.7	2.6	2.6	3.8	3.7
Strontium	20	20	20	19	20	27	24	26	25	25	20	22	16	16	24	30	32	28	39	47
Vanadium	26	25	25	25	26	35	31	34	35	37	11	8.7	2.7	3.5	9.8	36	31	31	280	50

APPENDIX F, TABLE 4

Detailed sediment chemistry results for the EARMP technical program, fall 2011.

Analyte[1]	Ellis Bay					Waterbury Lake					Pasfield Lake				
	04-Oct-11			05-Oct-11		22-Sep-11			23-Sep-11		24-Sep-11				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Metals															
Aluminum	20900	23800	20300	22500	23400	6000	4300	3100	2300	2300	1500	1500	1100	2600	620
Barium	200	180	270	190	200	59	66	41	24	42	16	16	12	25	8.2
Boron	32	33	34	32	33	4	3	3	2	2	2	2	1	3	1
Cadmium	0.3	0.3	0.4	0.3	0.3	<0.1	0.1	<0.1	<0.1	<0.1	0.2	0.1	<0.1	0.1	<0.1
Chromium	32	34	30	32	33	10	8.2	6.7	3.5	4.1	2.2	2.1	2	4	1
Copper	21	21	21	20	22	2.8	2.3	1.4	0.7	1	0.7	0.7	0.5	1.7	<0.5
Iron	20800	20300	29300	19100	19900	5400	8200	3600	2200	1300	1800	1500	1200	3600	660
Lead	8.2	8.3	7.8	8.4	8.1	3.4	5.3	3.6	2.4	2.6	2.5	2.3	1.9	5.7	1.1
Manganese	1000	530	1600	620	450	290	1200	340	200	310	71	56	55	110	47
Molybdenum	1.9	1.9	2	1.2	1.7	1.3	4.7	1.5	0.8	1.3	0.2	0.2	0.1	0.3	0.1
Nickel	21	22	22	20	21	4.6	3.9	2.8	1.3	1.7	0.8	0.9	0.8	2	0.7
Selenium	0.7	0.7	0.6	0.6	0.6	0.2	0.3	0.2	0.2	0.1	<0.1	<0.1	<0.1	0.2	<0.1
Silver	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Thallium	0.2	0.2	<0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Tin	0.9	1	0.8	0.8	0.9	0.5	0.3	0.6	0.3	0.1	0.2	0.1	<0.1	0.2	<0.1
Titanium	1200	1400	1200	1200	1300	440	290	230	140	150	98	110	67	200	40
Uranium	8.1	6.8	8.7	8.1	7	0.6	0.6	0.3	0.2	0.2	0.1	0.1	<0.1	0.2	<0.1
Zinc	45	47	46	46	46	24	18	12	7.9	9	7.8	10	5.3	15	3.6
Physical Properties															
Loss on ignition (%)	12.46	8.68	16.84	13.13	11	6.44	13.26	4.62	3.12	4.96	4.8	4.67	3.29	12.38	3.18
Moisture (%)	85.71	80.68	87.53	85.69	81.89	79.05	87.81	81.96	75.58	78.69	63.38	64.27	58.57	81.96	72.86
Radionuclides															
Lead-210 (Bq/g)	0.12	0.16	0.26	0.24	0.09	0.06	0.27	0.07	0.06	0.1	0.14	0.3	0.08	0.35	0.11
Polonium-210 (Bq/g)	0.16	0.12	0.26	0.25	0.14	0.11	0.26	0.09	0.06	0.09	0.16	0.11	0.1	0.35	0.1
Radium-226 (Bq/g)	0.08	0.14	0.09	0.05	0.05	0.01	0.02	<0.01	0.02	0.03	<0.01	<0.01	<0.01	0.01	<0.01
Thorium-230 (Bq/g)	0.1	0.06	0.05	0.06	0.09	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Trace Elements															
Antimony	0.6	0.3	0.3	0.2	0.3	<0.2	<0.2	<0.2	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Arsenic	5.3	4.5	7.5	3.9	4.7	2.4	1.9	1	0.7	0.9	0.7	0.7	1.4	1.2	0.5
Beryllium	0.7	0.8	0.7	0.7	0.7	0.2	0.2	0.1	<0.1	0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Cobalt	5.9	6.4	6	5.8	6.1	2	1.3	0.9	0.6	0.7	0.2	0.3	<0.2	0.5	<0.2
Strontium	79	84	82	84	85	25	22	18	17	16	20	20	22	28	13
Vanadium	37	39	35	37	39	12	11	8.2	5.2	5.7	4.1	4.1	3.2	7.5	1.9

[1]All concentrations and activity levels are presented in µg/g on a dry weight basis, except when specified otherwise.

APPENDIX F, TABLE 5

Sediment chemistry descriptive statistics.

Analyte[1]	Data	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	Pooled References
Metals									
Aluminum	Mean	12160	13040	2540	9680	22180	3600	1464	8728
	S.D.	152	802	1228	2297	1532	1572	731	9920
	Minimum	12000	12100	1200	7600	20300	2300	620	620
	Maximum	12400	14200	3600	12500	23800	6000	2600	23800
	<MDL	0	0	0	0	0	0	0	0
Barium	Mean	80	184	26	58	208	46	15	83
	S.D.	2	34	13	11	36	17	6	94
	Minimum	77	150	11	47	180	24	8	8
	Maximum	82	240	43	74	270	66	25	270
	<MDL	0	0	0	0	0	0	0	0
Boron	Mean	6.0	1.0	2.4	9.0	32.8	2.8	1.8	12.3
	S.D.	0	0	0.9	2.9	0.8	0.8	0.8	15.0
	Minimum	6.0	1.0	1.0	6.0	32.0	2.0	1.0	1.0
	Maximum	6.0	1.0	3.0	13.0	34.0	4.0	3.0	34.0
	<MDL	0	2	0	0	0	0	0	2
Cadmium	Mean	0.30	0.54	0.14	0.10	0.32	0.10	0.12	0.23
	S.D.	0.07	0.11	0.05	0	0.04	0	0.04	0.10
	Minimum	0.20	0.40	0.10	0.10	0.30	0.10	0.10	0.10
	Maximum	0.40	0.70	0.20	0.10	0.40	0.10	0.20	0.40
	<MDL	0	0	2	3	0	4	2	11
Chromium	Mean	22.4	22.4	4.7	20.2	32.2	6.5	2.3	13.0
	S.D.	0.5	1.3	2.4	7.5	1.5	2.7	1.1	14.1
	Minimum	22.0	21.0	1.8	14.0	30.0	3.5	1.0	1.0
	Maximum	23.0	24.0	7.4	32.0	34.0	10.0	4.0	34.0
	<MDL	0	0	0	0	0	0	0	0
Copper	Mean	7.8	11.6	1.4	4.7	21.0	1.6	0.8	8.9
	S.D.	0.2	0.5	0.8	2.3	0.7	0.9	0.5	10.0
	Minimum	7.6	11.0	0.5	2.7	20.0	0.7	0.5	0.5
	Maximum	8.1	12.0	2.3	7.7	22.0	2.8	1.7	22.0
	<MDL	0	0	1	0	0	0	1	2

APPENDIX F, TABLE 5

Sediment chemistry descriptive statistics.

Analyte[1]	Data	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	Pooled References
Iron	Mean	18780	73000	4780	12080	21880	4140	1752	9471
	S.D.	1467	20271	2882	2937	4194	2747	1116	9586
	Minimum	16800	49500	1300	9200	19100	1300	660	660
	Maximum	20800	96900	7600	15300	29300	8200	3600	29300
	<MDL	0	0	0	0	0	0	0	0
Lead	Mean	9.8	11.4	2.6	6.1	8.2	3.5	2.7	4.5
	S.D.	0.7	2.1	1.3	3.0	0.2	1.1	1.8	2.9
	Minimum	9.2	7.9	1.2	4.0	7.8	2.4	1.1	1.1
	Maximum	11.0	13.0	4.0	11.0	8.4	5.3	5.7	8.4
	<MDL	0	0	0	0	0	0	0	0
Manganese	Mean	250	3014	211	240	840	468	68	373
	S.D.	19	906	93	74	474	413	25	433
	Minimum	230	2190	83	180	450	200	47	47
	Maximum	280	4510	290	370	1600	1200	110	1600
	<MDL	0	0	0	0	0	0	0	0
Molybdenum	Mean	6.3	19.2	0.2	0.7	1.7	1.9	0.2	0.8
	S.D.	0.5	5.8	0.1	0.4	0.3	1.6	0.1	0.8
	Minimum	5.6	14.0	0.1	0.4	1.2	0.8	0.1	0.1
	Maximum	6.8	28.0	0.4	1.4	2.0	4.7	0.3	2.0
	<MDL	0	0	0	0	0	0	0	0
Nickel	Mean	11.6	14.4	2.5	7.5	21.2	2.9	1.0	8.2
	S.D.	0.5	0.5	1.6	2.2	0.8	1.4	0.5	9.6
	Minimum	11.0	14.0	0.7	5.5	20.0	1.3	0.7	0.7
	Maximum	12.0	15.0	4.6	10.0	22.0	4.6	2.0	22.0
	<MDL	0	0	0	0	0	0	0	0
Selenium	Mean	0.60	1.06	0.32	0.82	0.64	0.20	0.12	0.49
	S.D.	0.07	0.11	0.23	0.28	0.05	0.07	0.04	0.21
	Minimum	0.50	0.90	0.10	0.50	0.60	0.10	0.10	0.10
	Maximum	0.70	1.20	0.60	1.10	0.70	0.30	0.20	0.70
	<MDL	0	0	1	0	0	0	4	5
Silver	Mean	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<0.1
	S.D.	0	0	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	<0.1
	<MDL	5	5	5	5	5	5	5	35

APPENDIX F, TABLE 5

Sediment chemistry descriptive statistics.

Analyte[1]	Data	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	Pooled References
Thallium	Mean	0.20	0.22	0.20	0.20	0.20	0.20	0.20	0.20
	S.D.	0	0.04	0	0	0	0	0	0
	Minimum	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	Maximum	0.20	0.30	0.20	0.20	0.20	0.20	0.20	0.20
	<MDL	5	0	5	5	2	5	5	27
Tin	Mean	0.82	0.66	0.16	0.46	0.88	0.36	0.14	0.50
	S.D.	0.11	0.05	0.05	0.13	0.08	0.19	0.05	0.37
	Minimum	0.70	0.60	0.10	0.30	0.80	0.10	0.10	0.10
	Maximum	1.00	0.70	0.20	0.60	1.00	0.60	0.20	1.00
	<MDL	0	0	2	0	0	0	2	4
Titanium	Mean	886	720	166	802	1260	250	103	510
	S.D.	27	80	75	137	89	123	61	554
	Minimum	850	630	80	640	1200	140	40	40
	Maximum	920	810	230	990	1400	440	200	1400
	<MDL	0	0	0	0	0	0	0	0
Uranium	Mean	4.38	5.32	0.22	41.40	7.74	0.38	0.12	3.34
	S.D.	0.15	0.33	0.11	18.93	0.81	0.20	0.04	3.91
	Minimum	4.20	5.00	0.10	23.00	6.80	0.20	0.10	0.10
	Maximum	4.60	5.80	0.30	67.00	8.70	0.60	0.20	8.70
	<MDL	0	0	1	0	0	0	2	3
Zinc	Mean	42	78	9	18	46	14	8	21
	S.D.	1	8	5	5	1	7	4	18
	Minimum	41	68	4	14	45	8	4	4
	Maximum	43	88	15	23	47	24	15	47
	<MDL	0	0	0	0	0	0	0	0
Physical Properties									
Loss on ignition (%)	Mean	16.2	23.3	7.6	2.8	12.4	6.5	5.7	8.6
	S.D.	0.9	1.5	4.7	1.1	3.0	4.0	3.8	4.7
	Minimum	14.8	21.5	1.9	1.8	8.7	3.1	3.2	1.9
	Maximum	17.3	25.1	13.8	4.2	16.8	13.3	12.4	16.8
	<MDL	0	0	0	0	0	0	0	0
Moisture (%)	Mean	92	90	78	48	84	81	68	77
	S.D.	1	1	16	13	3	5	9	12
	Minimum	91	90	50	35	81	76	59	50
	Maximum	92	91	91	65	88	88	82	91
	<MDL	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 5

Sediment chemistry descriptive statistics.

Analyte[1]	Data	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	Pooled References
Radionuclides									
Lead-210 (Bq/g)	Mean	0.39	0.40	0.14	0.18	0.17	0.11	0.20	0.17
	S.D.	0.03	0.08	0.07	0.13	0.07	0.09	0.12	0.09
	Minimum	0.35	0.26	0.05	0.07	0.09	0.06	0.08	0.05
	Maximum	0.42	0.44	0.22	0.40	0.26	0.27	0.35	0.35
	<MDL	0	0	0	0	0	0	0	0
Polonium-210 (Bq/g)	Mean	0.38	0.45	0.14	0.21	0.19	0.12	0.16	0.16
	S.D.	0.05	0.08	0.08	0.15	0.06	0.08	0.11	0.08
	Minimum	0.31	0.35	0.04	0.12	0.12	0.06	0.10	0.04
	Maximum	0.43	0.57	0.27	0.47	0.26	0.26	0.35	0.35
	<MDL	0	0	0	0	0	0	0	0
Radium-226 (Bq/g)	Mean	0.03	0.06	0.02	0.14	0.08	0.02	0.01	0.05
	S.D.	0.02	0.04	0.01	0.21	0.04	0.01	0	0.04
	Minimum	0.01	0.02	0.01	0.01	0.05	0.01	0.01	0.01
	Maximum	0.06	0.12	0.04	0.51	0.14	0.03	0.01	0.14
	<MDL	2	0	1	1	0	1	4	9
Thorium-230 (Bq/g)	Mean	0.03	0.04	0.02	9.26	0.07	0.02	0.02	0.06
	S.D.	0.01	0.01	0	9.52	0.02	0	0	0.03
	Minimum	0.02	0.02	0.02	2.80	0.05	0.02	0.02	0.02
	Maximum	0.05	0.06	0.02	26.00	0.10	0.02	0.02	0.10
	<MDL	1	1	4	0	0	5	5	16
Trace Elements									
Antimony	Mean	0.24	0.20	0.20	0.20	0.34	0.24	0.20	0.34
	S.D.	0.09	0	0	0	0.15	0.09	0	0.15
	Minimum	0.20	0.20	0.20	0.20	0.20	0.20	0.20	0.20
	Maximum	0.40	0.20	0.20	0.20	0.60	0.40	0.20	0.60
	<MDL	4	5	5	5	0	4	5	28
Arsenic	Mean	2.1	8.5	1.3	4.5	5.2	1.4	0.9	2.5
	S.D.	0.1	3.7	0.7	3.2	1.4	0.7	0.4	2.2
	Minimum	2.0	4.6	0.5	1.7	3.9	0.7	0.5	0.5
	Maximum	2.2	13.0	2.0	9.8	7.5	2.4	1.4	7.5
	<MDL	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 5

Sediment chemistry descriptive statistics.

Analyte[1]	Data	Cochrane River	Fond du Lac River	Cree Lake	Crackingstone Inlet	Ellis Bay	Waterbury Lake	Pasfield Lake	Pooled References
Beryllium	Mean	0.60	0.82	0.14	0.36	0.72	0.14	0.10	0.51
	S.D.	0	0.08	0.05	0.09	0.04	0.05	0	0.29
	Minimum	0.60	0.70	0.10	0.30	0.70	0.10	0.10	0.10
	Maximum	0.60	0.90	0.20	0.50	0.80	0.20	0.10	0.80
	<MDL	0	0	2	0	0	1	5	8
Cobalt	Mean	3.52	6.74	0.80	3.08	6.04	1.10	0.28	2.71
	S.D.	0.13	0.74	0.50	0.61	0.23	0.57	0.13	2.77
	Minimum	3.40	5.50	0.20	2.60	5.80	0.60	0.20	0.20
	Maximum	3.70	7.40	1.20	3.80	6.40	2.00	0.50	6.40
	<MDL	0	0	0	0	0	0	2	2
Strontium	Mean	19.8	25.4	19.6	35.2	82.8	19.6	20.6	41.0
	S.D.	0.4	1.1	3.6	7.8	2.4	3.8	5.4	30.8
	Minimum	19.0	24.0	16.0	28.0	79.0	16.0	13.0	13.0
	Maximum	20.0	27.0	24.0	47.0	85.0	25.0	28.0	85.0
	<MDL	0	0	0	0	0	0	0	0
Vanadium	Mean	25	34	7	86	37	8	4	16
	S.D.	1	2	4	109	2	3	2	16
	Minimum	25	31	3	31	35	5	2	2
	Maximum	26	37	11	280	39	12	8	39
	<MDL	0	0	0	0	0	0	0	0

[1]All concentrations and activity levels are presented in µg/g on a dry weight basis, except when specified otherwise.

[2]0 signifies no variation, not a very small value.

All values < MDL were set equal to the MDL for the calculation of descriptive statistics.

S.D.=standard deviation.

APPENDIX F, TABLE 6

Taxonomic identification and enumeration of benthic invertebrates collected during the EARMP technical program, fall 2011.

Taxon	Cochrane River							Fond du Lac River							Cree Lake							Crackingstone Inlet							Ellis Bay							Waterbury Lake							Pasfield Lake						
	26-Sep-11					Avr.	%	26-Oct-11				28-Oct-11	Avr.	%	28-Sep-11					Avr.	%	02-Oct-11					Avr.	%	04-Oct-11			05-Oct-11		Avr.	%	22-Sep-11		23-Sep-11			Avr.	%	24-Sep-11					Avr.	%
	1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5		
Ablabesmyia						**0.0**	**0.0**						**0.0**	**0.0**	19					**3.8**	**0.1**			38			**7.7**	**0.1**					19	**3.8**	**0.0**						**0.0**	**0.0**			15		92	**21.5**	**0.1**
Agrypnia	8	4	8	4		**4.6**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	4	4				**1.5**	**0.0**						**0.0**	**0.0**		15	31	54	4	**20.8**	**0.1**
Bezzia						**0.0**	**0.0**						**0.0**	**0.0**	35	31	31	23	92	**42.3**	**1.2**						**0.0**	**0.0**		62		15		**15.4**	**0.1**	15	4	8	88	15	**26.2**	**0.8**	31					**6.2**	**0.0**
Caenis						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**		31	100			**26.2**	**0.3**	62		15		19	**19.2**	**0.2**			4			**0.8**	**0.0**						**0.0**	**0.0**
Callibaetis						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	62	31	15	92	19	**43.8**	**0.4**						**0.0**	**0.0**						**0.0**	**0.0**
Chironomus	19	31	15			**13.1**	**0.2**		4	19	4		**5.4**	**0.4**	58	115	8	23	92	**59.2**	**1.6**						**0.0**	**0.0**	523	1231	477	369	712	**662.3**	**6.2**				4		**0.8**	**0.0**			15	46		**12.3**	**0.0**
Chydoridae						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**			31			**6.2**	**0.2**						**0.0**	**0.0**
Cladopelma	77	192		54	15	**67.7**	**0.8**			8			**1.5**	**0.1**	81	31			77	**37.7**	**1.0**		38				**7.7**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**		15	62			**15.4**	**0.1**
Cladotanytarsus		31	62		31	**24.6**	**0.3**						**0.0**	**0.0**	38		15		62	**23.1**	**0.6**						**0.0**	**0.0**			62			**12.3**	**0.1**	54		69	331	223	**135.4**	**3.9**						**0.0**	**0.0**
Corynocera	1154	254		423	800	**526.2**	**6.3**						**0.0**	**0.0**	38	31	31	4		**20.8**	**0.6**						**0.0**	**0.0**						**0.0**	**0.0**	77					**15.4**	**0.4**	25015	26323	13554	37123	8892	**22181.5**	**87.2**
Cricotopus/Orthocladius						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	123	138	754	246	77	**267.7**	**1.1**
Cryptochironomus	19	177	46	46	31	**63.8**	**0.8**	31	8	4	4	4	**10.0**	**0.7**	69	46		46	62	**44.6**	**1.2**					31	**6.2**	**0.1**						**0.0**	**0.0**	8			19	35	**12.3**	**0.4**	215	154	15	62	31	**95.4**	**0.4**
Demicryptochironomus						**0.0**	**0.0**						**0.0**	**0.0**	8		46	12		**13.1**	**0.4**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Dicrotendipes			31		46	**15.4**	**0.2**						**0.0**	**0.0**	12		31		15	**11.5**	**0.3**			38			**7.7**	**0.1**	831	1569	954	1138	538	**1006.2**	**9.5**						**0.0**	**0.0**			92	15		**21.5**	**0.1**
Diporeia hoyi	615	323	354	108	615	**403.1**	**4.8**	1062	727	1085	1004	869	**949.2**	**66.1**						**0.0**	**0.0**	3600	2977	4331	3631	3231	**3553.8**	**38.2**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Enallagma						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	92				4	**19.2**	**0.2**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Endochironomus						**0.0**	**0.0**		4				**0.8**	**0.1**			15	4		**3.8**	**0.1**		38				**7.7**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Epoicocladius						**0.0**	**0.0**						**0.0**	**0.0**				4		**0.8**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Erpobdella punctata	4					**0.8**	**0.0**						**0.0**	**0.0**			4			**0.8**	**0.0**				8		**1.5**	**0.0**	8		8	23		**7.7**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**
Eurycercus	654	338	323	92	231	**327.7**	**3.9**						**0.0**	**0.0**	154	338	77	127	92	**157.7**	**4.3**						**0.0**	**0.0**				77	19	**19.2**	**0.2**	792	635	1446	1523	1762	**1231.5**	**35.9**	31	15	15		31	**18.5**	**0.1**
Eurylophella						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	31					**6.2**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**
Gammarus lacustris						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	142	492	215	185	146	**236.2**	**2.2**						**0.0**	**0.0**			15	15	69	**20.0**	**0.1**
Gyraulus	38					**7.7**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**	38		38	31		**21.5**	**0.2**	62	246	108	231	135	**156.2**	**1.5**				12	4	**3.1**	**0.1**						**0.0**	**0.0**
Helobdella stagnalis	38					**7.7**	**0.1**						**0.0**	**0.0**		15			15	**6.2**	**0.2**						**0.0**	**0.0**		31		31		**12.3**	**0.1**						**0.0**	**0.0**					15	**3.1**	**0.0**
Heterotanytarsus						**0.0**	**0.0**		8	4	4	19	**6.9**	**0.5**	19	31		15		**13.1**	**0.4**						**0.0**	**0.0**						**0.0**	**0.0**					31	**6.2**	**0.2**						**0.0**	**0.0**
Heterotrissocladius						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	38					**7.7**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Hexagenia limbata						**0.0**	**0.0**					4	**0.8**	**0.1**	35	65	4	38	8	**30.0**	**0.8**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Hyalella azteca						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	646	62	862	215	62	**369.2**	**4.0**	4646	6154	4446	3292	3173	**4342.3**	**41.0**	50	12	358	873	831	**424.6**	**12.4**						**0.0**	**0.0**
Larsia						**0.0**	**0.0**	15	19	15	19	31	**20.0**	**1.4**				8		**1.5**	**0.0**	308	31	31	123	31	**104.6**	**1.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Lauterborniella						**0.0**	**0.0**						**0.0**	**0.0**				4		**0.8**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Lumbriculidae						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**			31			**6.2**	**0.1**	215	154	200	62	96	**145.4**	**1.4**					8	**1.5**	**0.0**	31	215	31		31	**61.5**	**0.2**
Lymnaea						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**			8			**1.5**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Lymnaeidae (i/d)	173					**34.6**	**0.4**						**0.0**	**0.0**						**0.0**	**0.0**	38		31			**13.8**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Macrothricidae	538	692	400	192	492	**463.1**	**5.5**			4	12		**3.1**	**0.2**	308	585	400	338	631	**452.3**	**12.4**						**0.0**	**0.0**						**0.0**	**0.0**	62	154	215	554	154	**227.7**	**6.6**						**0.0**	**0.0**
Micropsectra						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	15		62			**15.4**	**0.4**						**0.0**	**0.0**
Microtendipes						**0.0**	**0.0**						**0.0**	**0.0**				19		**3.8**	**0.1**						**0.0**	**0.0**	31					**6.2**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**
Molanna		77	15			**18.5**	**0.2**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	31					**6.2**	**0.1**					8	**1.5**	**0.0**				4	19	**4.6**	**0.0**
Monodiamesa						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	19		4			**4.6**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**
Mysis relicta						**0.0**	**0.0**			4			**0.8**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Mystacides						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**				31	31	**12.3**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**	62					**12.3**	**0.0**
Naidinae	231					**46.2**	**0.5**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**		369	615	492	96	**314.6**	**3.0**				31	31	**12.3**	**0.4**						**0.0**	**0.0**
Nematoda	19		31		31	**16.2**	**0.2**			8			**1.5**	**0.1**	92	31	31	8	46	**41.5**	**1.1**	38	385	77		31	**106.2**	**1.1**	123	277	154	77		**126.2**	**1.2**	4		35	62	12	**22.3**	**0.6**	31	615	292	785	2631	**870.8**	**3.4**
Nilothauma						**0.0**	**0.0**						**0.0**	**0.0**				46		**9.2**	**0.3**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Oecetis						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	31					**6.2**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Oligochaeta - cocoon						**0.0**	**0.0**						**0.0**	**0.0**			646	231		**175.4**	**4.8**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Ostracoda	77		46		62	**36.9**	**0.4**	200	123	96	108	73	**120.0**	**8.4**	96	108	62	138	292	**139.2**	**3.8**						**0.0**	**0.0**						**0.0**	**0.0**	77	31	62	154	62	**76.9**	**2.2**		246	185		77	**101.5**	**0.4**
Oxyethira	308	38	108		15	**93.8**	**1.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Pagastiella		15	46			**12.3**	**0.1**		8	85		8	**20.0**	**1.4**	154	31	92	46		**64.6**	**1.8**						**0.0**	**0.0**						**0.0**	**0.0**			31			**6.2**	**0.2**						**0.0**	**0.0**
Parachironomus						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**			62			**12.3**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**
Parakiefferiella						**0.0**	**0.0**		8	12		8	**5.4**	**0.4**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Paratanytarsus						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**		38			62	**20.0**	**0.2**	338	492	308	169	462	**353.8**	**3.3**						**0.0**	**0.0**						**0.0**	**0.0**
Phryganea						**0.0**	**0.0**						**0.0**	**0.0**		4				**0.8**	**0.0**						**0.0**	**0.0**		4	15	4		**4.6**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Phryganeidae (i/d)						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	4					**0.8**	**0.0**						**0.0**	**0.0**
Physa						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	31					**6.2**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Piscicola milneri						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**			31			**6.2**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Pisidium	4	138	169	342	392	**209.2**	**2.5**						**0.0**	**0.0**	62	123	15	19	108	**65.4**	**1.8**	62		158	185	92	**99.2**	**1.1**	31	31	46			**21.5**	**0.2**	42	135	31	15	31	**50.8**	**1.5**	277	277	62	650	62	**265.4**	**1.0**
Polypedilum	96	54	46	38	46	**56.2**	**0.7**		4				**0.8**	**0.1**	119	77	200	35	262	**138.5**	**3.8**	115	192	69	31	62	**93.8**	**1.0**	62	31	62	31	58	**48.5**	**0.5**						**0.0**	**0.0**	31	15				**9.2**	**0.0**
Potthastia longimana group			31			**6.2**	**0.1**		4			4	**1.5**	**0.1**						**0.0**	**0.0**		31	38	31	31	**26.2**	**0.3**						**0.0**	**0.0**	12					**2.3**	**0.1**						**0.0**	**0.0**
Probezzia		38			31	**13.8**	**0.2**	4	8	12	4	15	**8.5**	**0.6**	96		169	65	62	**78.5**	**2.2**	1077	1808	1500	585	615	**1116.9**	**12.0**	92					**18.5**	**0.2**	8				4	**2.3**	**0.1**						**0.0**	**0.0**
Procladius	269	154	385	269	231	**261.5**	**3.1**	19	142	158	200	246	**153.1**	**10.7**	623	665	662	542	677	**633.8**	**17.4**		69		62	92	**44.6**	**0.5**	31	92	131		38	**58.5**	**0.6**	315		335	423	335	**281.5**	**8.2**	154	200	123	154	215	**169.2**	**0.7**
Protanypus						**0.0**	**0.0**		8	4			**2.3**	**0.2**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	4					**0.8**	**0.0**						**0.0**	**0.0**
Psectrocladius						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**					19	**3.8**	**0.0**				62		**12.3**	**0.4**					108	**21.5**	**0.1**
Pseudochironomus						**0.0**	**0.0**						**0.0**	**0.0**	4					**0.8**	**0.0**	38					**7.7**	**0.1**						**0.0**	**0.0**	12			12	8	**6.2**	**0.2**	31					**6.2**	**0.0**
Sergentia	115	54				**33.8**	**0.4**						**0.0**	**0.0**			31			**6.2**	**0.2**						**0.0**	**0.0**				15	58	**14.6**	**0.1**				31	31	**12.3**	**0.4**	31		15		31	**15.4**	**0.1**
Sialis						**0.0**	**0.0**						**0.0**	**0.0**			85	23		**21.5**	**0.6**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Somatochlora						**0.0**	**0.0**						**0.0**	**0.0**		4				**0.8**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**

APPENDIX F, TABLE 6

Taxonomic identification and enumeration of benthic invertebrates collected during the EARMP technical program, fall 2011.

Taxon	Cochrane River							Fond du Lac River							Cree Lake							Crackingstone Inlet							Ellis Bay							Waterbury Lake							Pasfield Lake						
	26-Sep-11					Avr.	%	26-Oct-11			28-Oct-11		Avr.	%	28-Sep-11					Avr.	%	02-Oct-11					Avr.	%	04-Oct-11			05-Oct-11		Avr.	%	22-Sep-11			23-Sep-11		Avr.	%	24-Sep-11					Avr.	%
	1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5			1	2	3	4	5		
Sphaeriidae (i/d)	1385	1254	523	1415	2046	**1324.6**	**15.8**	262	231	38	19	31	**116.2**	**8.1**	612	677	415	531	662	**579.2**	**15.9**	4254	2277	3785	2800	1200	**2863.1**	**30.8**	123	185	123	277	731	**287.7**	**2.7**	504	596	319	550	738	**541.5**	**15.8**	1354	1123	631	1200	446	**950.8**	**3.7**
Sphaerium	42				15	**11.5**	**0.1**						**0.0**	**0.0**				4		**0.8**	**0.0**		31				**6.2**	**0.1**			31	15		**9.2**	**0.1**			4	4		**1.5**	**0.0**						**0.0**	**0.0**
Stempellina						**0.0**	**0.0**			4			**0.8**	**0.1**	19			15		**6.9**	**0.2**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Stictochironomus						**0.0**	**0.0**						**0.0**	**0.0**				8	15	**4.6**	**0.1**						**0.0**	**0.0**	185	462	169	31	192	**207.7**	**2.0**	258		250	81	115	**140.8**	**4.1**	185	15	46	185	200	**126.2**	**0.5**
Tanypodinae (i/d)						**0.0**	**0.0**						**0.0**	**0.0**	4					**0.8**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Tanytarsini (i/d)						**0.0**	**0.0**		4				**0.8**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**
Tanytarsus	846	662	492	362	1446	**761.5**	**9.1**		4	4			**1.5**	**0.1**	565	569	400	677	708	**583.8**	**16.0**	231	231	223	92	431	**241.5**	**2.6**	185	185	262	185	77	**178.5**	**1.7**	77			62		**27.7**	**0.8**		123			31	**30.8**	**0.1**
Thienemannimyia group						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**				31		**6.2**	**0.1**	1723	1815	1446	1308	1481	**1554.6**	**14.7**						**0.0**	**0.0**						**0.0**	**0.0**
Triaenodes						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**		15				**3.1**	**0.0**
Tribelos						**0.0**	**0.0**						**0.0**	**0.0**				23		**4.6**	**0.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**					15	**3.1**	**0.0**
Tubificinae	19	92	77	38	92	**63.8**	**0.8**		15			4	**3.8**	**0.3**	142	92	200	212	77	**144.6**	**4.0**	69	38	31	31	123	**58.5**	**0.6**	62	400	62	15	19	**111.5**	**1.1**	19	19	35	58	108	**47.7**	**1.4**	154	62	15	31	173	**86.9**	**0.3**
Valvata sincera	385	192	92	169	123	**192.3**	**2.3**		12				**2.3**	**0.2**	23		15	46	15	**20.0**	**0.5**	335	315	338	492	615	**419.2**	**4.5**	462	246	738	677	731	**570.8**	**5.4**	100	65	27	77	77	**69.2**	**2.0**	31	15		15	31	**18.5**	**0.1**
Zalutschia	3288	4038	2600	3392	3108	**3285.4**	**39.1**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**						**0.0**	**0.0**	27		4			**6.2**	**0.2**						**0.0**	**0.0**
Total	10423	8850	5900	6946	9900	**8404**	**100**	1592	1338	1562	1377	1315	**1437**	**100**	3485	3669	3685	3335	4069	**3648**	**100**	11042	8592	11758	8377	6742	**9302**	**100**	10062	14562	10723	8812	8838	**10599**	**100**	2554	1650	3327	5023	4619	**3435**	**100**	27785	29585	15969	40585	13281	**25441**	**100**

Presented in #/m^2.

APPENDIX F, TABLE 7

Detailed benthic invertebrate community biomass data collected for the EARMP technical program, fall 2011.

Taxonomic Group	Cochrane River					Fond du Lac River					Cree Lake					Crackingstone Inlet				
	26-Sep-11					26-Oct-11			28-Oct-11		28-Sep-11					02-Oct-11				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Amphipoda	**0.871**	0.475	0.394	0.146	**0.814**	**1.054**	**0.770**	**1.173**	**1.078**	**1.095**						3.046	2.133	3.319	2.833	2.287
Chironomidae	0.740	**1.022**	**0.496**	**0.596**	0.584	0.029	0.107	0.111	0.092	0.082	**0.546**	**0.576**	0.329	**0.333**	**0.928**	0.031	0.037	0.025	0.074	0.029
Ephemeroptera										0.001	0.039	0.073	0.017	0.298	0.026		0.002	0.009		
Gastropoda/Pelecypoda	0.750	0.484	0.267	0.554	0.501	0.061	0.066	0.003	0.001	0.012	0.188	0.186	0.122	0.104	0.176	**1.017**	**0.693**	**1.151**	**0.763**	**0.400**
Hirudinea	0.107											0.012	**0.520**		0.011			0.039	0.410	
Malacostraca								0.022												
Megaloptera													0.133	0.098						
Odonata												0.251				0.065				0.009
Oligochaeta	0.028	0.077	0.032	0.013	0.076		0.002			0.004	0.068	0.031	0.112	0.109	0.010	0.050	0.019	0.081	0.014	0.023
Other Diptera		0.004			0.006	0.003	0.000	0.001	0.000	0.001	0.012	0.006	0.018	0.006	0.010	0.054	0.078	0.067	0.054	0.046
Other taxa	0.210	0.159	0.094	0.069	0.118	0.014	0.010	0.011	0.013	0.006	0.079	0.124	0.046	0.092	0.130	0.031	0.042	0.044		0.008
Trichoptera	0.259	0.094	0.172	0.082	0.002							0.068				0.007			0.077	0.025
Total	2.963	2.315	1.455	1.460	2.101	1.160	0.956	1.322	1.184	1.200	0.932	1.326	1.297	1.040	1.291	4.300	3.004	4.735	4.223	2.828

Taxonomic Group	Ellis Bay					Waterbury Lake					Pasfield Lake				
	04-Oct-11			05-Oct-11		22-Sep-11			23-Sep-11		24-Sep-11				
	1	2	3	4	5	1	2	3	4	5	1	2	3	4	5
Amphipoda	**2.917**	**4.172**	**2.679**	**2.235**	**1.862**	0.012	0.005	0.114	**0.345**	**0.300**			0.012	0.007	0.102
Chironomidae	0.841	1.887	1.030	0.808	1.175	**0.325**	0.299	**0.298**	0.318	0.265	6.337	**5.998**	**2.316**	**12.948**	**1.812**
Ephemeroptera	0.090	0.022	0.031	0.039	0.035			0.001							
Gastropoda/Pelecypoda	0.474	0.269	0.632	0.543	0.820	0.211	**0.404**	0.177	0.184	0.183	**4.768**	0.537	0.149	1.073	0.374
Hirudinea		0.021	0.180	1.210											0.004
Malacostraca															
Megaloptera															
Odonata															
Oligochaeta	0.301	0.358	0.301	0.112	0.126	0.013	0.007	0.017	0.060	0.103	0.382	0.798	0.135	0.271	0.344
Other Diptera	0.006	0.007		0.002		0.004	0.001	0.001	0.015	0.004	0.001				
Other taxa	0.059	0.164	0.060	0.122	0.076	0.118	0.100	0.191	0.268	0.201	0.042	0.074	0.070	0.042	0.094
Trichoptera	0.154	0.202	0.620	0.218		0.002				0.009	0.158	0.172	0.012	0.266	0.213
Total	4.841	7.102	5.532	5.289	4.092	0.685	0.816	0.798	1.190	1.066	11.688	7.580	2.694	14.607	2.944

Bolded values are taxonomic groups with the highest biomass at a given sampling station.

APPENDIX F, TABLE 8

Detailed fish capture during the 2011 technical program of the Eastern Athabasca Regional Monitoring Program, September-October 2011.

Waterbody	Method	Site	Set Date	Catch Date	Species	Fish Number	Length (cm)	Weight (g)	Sex	Released	Maturity	Spawning Condition	Age Structure Collected	Age (years)	Stomach Contents	Comments
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	LT	1	58.3	2440	F	N	A	ST	OT	18	60% stickleback	Kept for chemistry
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	LT	2	59.4	2280	F	N	A	ST	OT	10	50% stickleback	Kept for chemistry
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	LT	3	67.7	3460	F	N	A	ST	OT	23	60% stickleback	Kept for chemistry
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	LT	4	63.2	3320	F	N	A	ST	OT	23	35% stickleback	Kept for chemistry; green liver
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	LT	5	57.5	2380	F	N	A	ST	OT	19	90% white suckers	Kept for chemistry
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	NP	6	57.7	1420	M	N	A	U	CL	9	Empty	Kept for chemistry; green liver
Cochrane River	AN	AN01-01	26/09/2011 9:45	26/09/2011 10:45	NP	7	59.4	1700	M	N	A	U	CL	6	Empty	Kept for chemistry
Cochrane River	AN	AN02-01	26/09/2011 9:45	26/09/2011 10:45	NP	1	51.1	1110	M	N	A	U	CL	4	Empty	Kept for chemistry
Cochrane River	AN	AN02-01	26/09/2011 9:45	26/09/2011 10:45	NP	2	48.9	840	F	N	A	U	CL	4	Empty	Kept for chemistry
Cochrane River	AN	AN02-01	26/09/2011 9:45	26/09/2011 10:45	NP	3	52.1	1180	M	N	A	U	CL	6	Empty	Kept for chemistry
Cochrane River	SP	SP01-01	26/09/2011 9:15	26/09/2011 12:00	NF											No fish captured
Cochrane River	SP	SP02-01	26/09/2011 9:45	26/09/2011 10:45	NF											No fish captured
Cochrane River	SP	SP03-01	26/09/2011 11:00	26/09/2011 15:30	NF											No fish captured
Cochrane River	SP	SP04-01	26/09/2011 12:30	26/09/2011 15:10	NF											No fish captured
Cochrane River	SP	SP05-01	26/09/2011 15:40	26/09/2011 17:00	NF											No fish captured
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LW	1	42.5	960	F	N	A	MT	OT	32	Empty	Kept for chemistry
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LW	2	49.4	1210	F	N	A	NS	OT	34	10% Unidentified BI	Kept for chemistry
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LW	3	43.2	990	M	N	A	U	OT	10	40% BI	Kept for chemistry
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LSU	4	37.9	930	M	N	A	U	FR	19	Empty	Kept for chemistry
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LSU	5	39.7	970	M	N	A	U	FR	16	10% unknown	Kept for chemistry
Cochrane River	SP	SP06-01	26/09/2011 17:00	27/09/2011 7:30	LSU	6	42.7	1210	M	N	A	U	FR	12	Empty	Kept for chemistry
Cochrane River	SP	SP07-01	27/09/2011 7:50	27/09/2011 11:50	NF											No fish captured
Cochrane River	SP	SP08-01	27/09/2011 12:00	27/09/2011 15:30	LW	1	46.5	1310	F	N	A	NS	OT	17	30% Unidentified BI	Kept for chemistry
Cochrane River	SP	SP08-01	27/09/2011 12:00	27/09/2011 15:30	LW	2	46.5	1380	F	N	A	M	OT	15	70% BI	Kept for chemistry
Cochrane River	SP	SP08-01	27/09/2011 12:00	27/09/2011 15:30	LW	3	43.8	1180	U	Y	A	U				
Fond du Lac River	SP	SP01-01	25/10/2011 10:26	25/10/2011 15:55	NF											No fish captured
Fond du Lac River	SP	SP02-01	25/10/2011 10:38	25/10/2011 15:43	NF											No fish captured
Fond du Lac River	SP	SP03-01	25/10/2011 10:45	25/10/2011 15:37	NF											No fish captured
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	1	40.1	1060	M	N	A	NS	OT	16	25% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	2	41.5	1040	F	N	A	ST	OT	16	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	3	45.8	1690	M	N	A	SP	OT	26	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	4	53.1	2550	M	N	A	SP	OT	32	20% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	5	44.3	1050	M	N	A	SP	OT	10	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	6	46.3	910	M	N	A	ST	CL	3	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	7	54.3	4060	M	N	A	ST	CL	5	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	8	63.4	2550	M	N	A	ST	CL	9	40% Sucker	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	9	55.8	1380	F	N	A	ST	CL	5	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	10	48.9	980	M	N	A	ST	CL	3	Empty	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LW	11	37.5	680	F	Y	A	SP				
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	LSU	11	37.5	980	F	N	A	MT	FR	16	35% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	12	50.8	950	U	Y	A	U				
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	WSU	13	37.9	800	U	Y	A	U				
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	14	72.5	2920	U	Y	A	U				
Fond du Lac River	SP	SP04-01	25/10/2011 16:05	26/10/2011 10:15	NP	15	68.3	2440	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	1	43.2	1350	M	N	A	MT	FR	14	Empty	Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	2	44.5	1390	M	N	A	MT	FR	20	Empty	Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	3	40.8	1130	F	N	A	MT	FR	13	25% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	4	40.5	1290	F	N	A	MT	FR	14		Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	5	49.6	1920	M	N	A	MT	FR	26	50% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LSU	6	36.2	840	M	N	A	MT	FR	13		Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LSU	7	42.2	1450	F	N	A	MT	FR	19	30% Unidentified BI	Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LT	8	56.2	2610	F	N	A	ST	OT	21		Kept for chemistry
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	NP	9	69.9	2750	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LW	10	40.3	945	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	11	38.7	1050	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	12	41.5	1180	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	13	38.8	920	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	14	51.2	1820	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	15	37.5	880	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	16	44.6	1520	U	Y	A	U				

APPENDIX F, TABLE 8

Detailed fish capture during the 2011 technical program of the Eastern Athabasca Regional Monitoring Program, September-October 2011.

Waterbody	Method	Site	Set Date	Catch Date	Species	Fish Number	Length (cm)	Weight (g)	Sex	Released	Maturity	Spawning Condition	Age Structure Collected	Age (years)	Stomach Contents	Comments
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	17	36.3	710	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	18	39.4	1005	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	19	45.2	1340	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	WSU	20	37.2	840	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LW	21	47.2	1130	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LW	22	37.5	610	U	Y	A	U				
Fond du Lac River	SP	SP05-01	25/10/2011 16:20	26/10/2011 9:15	LW	23	40.8	880	M	Y	A	SP				
Fond du Lac River	SP	SP06-01	26/10/2011 10:35	26/10/2011 16:15	NF											No fish captured
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LSU	1	52.8	2020	F	N	A	MT	FR	27	Empty	Kept for chemistry
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LSU	2	43.5	1250	M	N	A	MT	FR	19	Empty	Kept for chemistry
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	3	38.8	670	M	Y	A	SP				Weak
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	4	39.5	880	U	Y	A	MT				Weak
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	BB	5	44.6	550	U	Y	U	U				Weak
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	6	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	7	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	8	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	9	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	10	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LW	11	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	NP	12	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	LSU	13	-	-	U	Y	U	U				
Fond du Lac River	SP	SP06-02	26/10/2011 16:20	28/10/2011 9:50	BB	14	-	-	U	Y	U	U				
Fond du Lac River	SP	SP07-01	26/10/2011 10:45	26/10/2011 16:24	NF											No fish captured
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	1	47.4	1310	F	Y	A	SP				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	2	45.1	1180	F	Y	A	SP				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	3	39.2	720	F	Y	A	SP				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	4	43.5	1175	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	5	33.1	380	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	6	33.8	410	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	7	45.1	1150	M	Y	A	SP				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	8	35.4	490	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	9	40.2	830	M	Y	A	SP				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	10	39.6	690	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	11	36.4	560	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	12	35.5	560	U	Y	J	NS				Weak
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	13	34.2	495	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	14	34.3	430	U	Y	J	NS				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LT	15	57.2	1850	F	N	A	ST	OT	21	Empty	Kept for chemistry
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	16	56.4	1280	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	17	72.9	3930	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	18	74.9	3960	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	19	65.2	2230	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	20	61.5	1880	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	21	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	22	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	23	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	24	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	25	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	26	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	27	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	28	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	LW	29	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	30	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	31	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	32	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	NP	33	-	-	U	Y	A	U				
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	WSU	34	-	-	U	Y	A	U				

APPENDIX F, TABLE 8

Detailed fish capture during the 2011 technical program of the Eastern Athabasca Regional Monitoring Program, September-October 2011.

Waterbody	Method	Site	Set Date	Catch Date	Species	Fish Number	Length (cm)	Weight (g)	Sex	Released	Maturity	Spawning Condition	Age Structure Collected	Age (years)	Stomach Contents	Comments
Fond du Lac River	SP	SP07-02	26/10/2011 16:30	28/10/2011 9:15	WSU	35	-	-	U	Y	A	U				
Fond du Lac River	SP	SP08-01	28/10/2011 11:05	28/10/2011 15:30	NF											No fish captured
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LT	1	55.1	2280	M	N	A	SP	OT	14	10% Stickleback	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LT	2	55.7	2160	F	N	A	SP	OT	19	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LT	3	54.1	1780	F	N	A	SP	OT	14	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LT	4	53.3	1950	M	N	A	SP	OT	14	70% Stickleback	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LT	5	52.6	1680	M	N	A	SP	OT	n/a	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LW	6	40.1	1090	F	N	A	M	OT	14	20% UIR	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LW	7	41.4	1220	M	N	A	M	OT	8	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LW	8	43.4	1260	M	N	A	NS	OT	13	35% UIR	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LW	9	40.4	1060	F	N	A	NS	OT	14	40% UIR	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	LW	10	41.3	1150	F	N	A	M	OT	19	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	NP	1	55.2	1320	M	N	A	MT	CL	5	10% Lake whitefish	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	NP	2	55.9	1410	F	N	A	MT	CL	5	30% Lake whitefish	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	NP	3	59.9	1720	F	N	A	MT	CL	5	Empty	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	NP	4	61.7	1960	F	N	A	MT	CL	7	10% UIR	Kept for chemistry
Crackingstone Inlet	SP	SP01-01	04/10/2011 12:00	05/10/2011 10:00	NP	5	71.5	2560	F	N	A	MT	CL	9	Empty	Kept for chemistry
Waterbury Lake	AN	AN01-01	22/09/2011 12:00	22/09/2011 12:10	LT	1				Y						
Waterbury Lake	AN	AN01-01	22/09/2011 12:00	22/09/2011 12:10	LT	2				Y						
Waterbury Lake	AN	AN02-01	22/09/2011 12:00	22/09/2011 12:20	NF											One LT got away; no fish captured
Waterbury Lake	SP	SP01-01	22/09/2011 11:10	22/09/2011 12:35	LT	1	58.5	2280	M	Y	A	SP				
Waterbury Lake	SP	SP01-01	22/09/2011 11:10	22/09/2011 12:35	LT	2	47	1120	M	Y	A	SP				
Waterbury Lake	SP	SP01-01	22/09/2011 11:10	22/09/2011 12:35	NP	3	78.5	3540	M	N	A	ST	CL	9	Empty	Kept for chemistry
Waterbury Lake	SP	SP02-01	22/09/2011 11:25	22/09/2011 13:55	NF											No fish captured
Waterbury Lake	SP	SP03-01	22/09/2011 11:45	22/09/2011 14:00	NF											No fish captured
Waterbury Lake	SP	SP04-01	22/09/2011 12:45	22/09/2011 14:45	NF											No fish captured
Waterbury Lake	SP	SP05-01	22/09/2011 14:25	22/09/2011 17:25	NF											No fish captured
Waterbury Lake	SP	SP06-01	22/09/2011 14:55	22/09/2011 15:25	NF											No fish captured
Waterbury Lake	SP	SP07-01	22/09/2011 15:30	22/09/2011 17:35	NF											No fish captured
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	NP	1	85.9	4750	F	N	A	U	CL	8	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	NP	2	67	2250	F	N	A	U	CL	4	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LT	3	66.2	2680	F	N	A	NS	OT	17	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LT	4	52.9	1920	M	N	A	M	OT	11	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LT	5	51.5	1440	F	N	A	ST	OT	16	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LT	6	50.6	1380	M	N	A	M	OT	12	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LT	7	53.5	3310	F	N	A	SP	OT	20	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LW	8	37.5	680	F	N	A	MT	OT	16	20% Unidentified BI	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LW	9	37.5	750	F	N	A	MT	OT	19	30% Unidentified BI	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LW	10	35.5	560	F	N	A	NS	OT	12	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	11	37.2	750	M	N	A	U	FR	11	Empty	Composite with SP08-01 LSU12
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	12	33.5	480	F	N	A	U	FR	8	44% unknown	Composite with SP08-01 LSU11
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	13	38.6	800	M	N	A	U	FR	13	Empty	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	14	39.5	920	M	N	A	U	FR	15	30% unknown	Kept for chemistry
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	15	37.5	720	M	N	A	U	FR	11	Empty	Composite with SP08-01 LSU16
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	16	33.5	550	F	N	A	U	FR	14	30% unknown	Composite with SP08-01 LSU15
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	17	33.5	5560	M	N	A	U	FR	13	20% unknown	Composite with SP08-01 LSU18
Waterbury Lake	SP	SP08-01	22/09/2011 17:45	23/09/2011 9:00	LSU	18	32.2	450	M	N	A	U	FR	10	Empty	Composite with SP08-01 LSU17
Waterbury Lake	SP	SP09-01	23/09/2011 10:00	23/09/2011 13:45	NF											No fish captured
Waterbury Lake	SP	SP10-01	23/09/2011 10:30	23/09/2011 14:00	NF											No fish captured
Cree Lake	AN	AN01-01	28/09/2011 12:00	28/09/2011 13:00	LT	1	47.4	1170	M	N	A	SP	OT	9	Empty	Kept for chemistry
Cree Lake	AN	AN01-01	28/09/2011 12:00	28/09/2011 13:00	LT	2	57.9	1920	M	N	A	SP	OT	18	Empty	Kept for chemistry
Cree Lake	AN	AN01-01	28/09/2011 12:00	28/09/2011 13:00	LT	3	48.1	1180	F	N	A	NS	OT	7	Empty	Kept for chemistry
Cree Lake	AN	AN01-01	28/09/2011 12:00	28/09/2011 13:00	LT	4	54.9	1620	F	N	A	NS	OT	10	Empty	Kept for chemistry
Cree Lake	SP	SP01-01	28/09/2011 10:00	28/09/2011 13:10	LT	1	44.5	950	F	N	J	NS	OT	6	Empty	Kept for chemistry
Cree Lake	SP	SP01-01	28/09/2011 10:00	28/09/2011 13:10	LW	2	33.5	460	F	N	J	NS	OT	4	Empty	Composited with SP03-01 LW02
Cree Lake	SP	SP02-01	28/09/2011 10:15	28/09/2011 12:55	NF											No fish captured
Cree Lake	SP	SP03-01	28/09/2011 10:30	28/09/2011 12:45	LT	1	67.7	3240	M	N	A	M	OT	n/a	Empty	Dead
Cree Lake	SP	SP03-01	28/09/2011 10:30	28/09/2011 12:45	LW	2	36.3	550	M	N	J	NS	OT	6	15% BI	Composited with SP01-01 LW02
Cree Lake	SP	SP04-01	28/09/2011 13:15	28/09/2011 15:30	NF											No fish captured
Cree Lake	SP	SP05-01	28/09/2011 13:25	28/09/2011 15:25	NF											No fish captured

APPENDIX F, TABLE 8

Detailed fish capture during the 2011 technical program of the Eastern Athabasca Regional Monitoring Program, September-October 2011.

Waterbody	Method	Site	Set Date	Catch Date	Species	Fish Number	Length (cm)	Weight (g)	Sex	Released	Maturity	Spawning Condition	Age Structure Collected	Age (years)	Stomach Contents	Comments
Cree Lake	SP	SP06-01	28/09/2011 15:45	28/09/2011 17:45	LT	1	60.6	2220	U	Y	A	U				
Cree Lake	SP	SP06-01	28/09/2011 15:45	28/09/2011 17:45	LW	2	49.6	1530	M	N	A	MT	OT	9	Empty	Kept for chemistry
Cree Lake	SP	SP07-01	28/09/2011 15:55	28/09/2011 17:55	LT	1	58.3	1740	M	Y	A	ST				
Cree Lake	SP	SP07-01	28/09/2011 15:55	28/09/2011 17:55	LW	2	37.1	620	M	N	A	MT	OT	18	Empty	Composited with SP09-01 LW01
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	WSU	1	38.4	900	U	Y	A	U				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LT	2	46.4	1180	F	N	A	SP				Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	WSU	3	44.1	1360	U	Y	A	U				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LT	4	54.1	1330	M	N	A	ST				Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LT	5	44	980	M	N	A	NS				Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	6	37.5	630	M	N	A	MT			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	7	35.4	510	M	N	A	MT			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	8	35.7	515	F	N	A	NS			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	9	36.1	550	F	N	A	M			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	10	34.9	520	M	N	A	NS			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	11	35.7	550	U	Y	A	G				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	12	35.7	480	U	Y	A	G				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LW	13	33.7	475	F	N	A	M			Empty	Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	LSU	14	34.5	580	U	Y	A	U				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	WSU	15	33.1	600	U	Y	A	MT				
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	WSU	16	33.5	520	F	N	A	MT				Dead
Cree Lake	SP	SP08-01	28/09/2011 18:15	29/09/2011 9:00	BB	17	56.1	1140	U	Y	A	MT				
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LW	1	33.4	420	M	N	J	NS	OT	8	Empty	Composited with SP07-01 LW02
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	WSU	2	37.7	810	U	N	A	MT	FR	9	25% Unidentified BI	Kept for chemistry, lesion on tail
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	WSU	3	36.7	790	U	N	A	MT	FR	7	Empty	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	WSU	4	38.4	900	U	N	A	MT	FR	9	Empty	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	WSU	5	37.8	855	U	N	A	MT	FR	8	30% Unidentified BI	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	WSU	6	41.7	1165	U	N	A	MT	FR	9	Empty	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	7	45.6	1510	U	N	A	MT	FR	23	Empty	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	8	36.4	610	U	N	A	MT	FR	14	Empty	Composited with LSU09
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	9	33.2	510	U	N	A	MT	FR	14	20% Unidentified BI	Composited with LSU08
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	10	35.1	600	U	N	A	MT	FR	10	Empty	Composited with LSU11
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	11	34.3	520	U	N	A	MT	FR	8	Empty	Composited with LSU10
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	12	34.6	540	U	N	A	MT	FR	9	10% Unidentified BI	Composited with LSU13
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	13	35	560	U	N	A	MT	FR	14	10% Unidentified BI	Composited with LSU12
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	14	36.7	715	U	N	A	MT	FR	13	10% Unidentified BI	Composited with LSU15
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LSU	15	36.5	670	U	N	A	MT	FR	10	Empty	Composited with LSU14
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LT	16	46.3	1180	U	Y	A	ST				
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LT	17	55.9	2050	M	Y	A	SP				
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	NP	18	74.6	3150	U	Y	A	MT				
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LW	19	44.4	950	M	N	A	NS	OT	8	Empty	Kept for chemistry
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LW	20	39.4	705	M	N	A	MT	OT	12	Empty	composited with SP09-01 LW21
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LW	21	34.7	520	M	N	A	MT	OT	9	Empty	composited with SP09-01 LW20
Cree Lake	SP	SP09-01	28/09/2011 18:30	29/09/2011 9:30	LT	22	38.1	920	U	Y	A	MT				
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LT	1	49.8	1490	M	N	A	NS	OT	12	30% Stickleback	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LT	2	48.6	1480	M	N	A	NS	OT	8	50% Sucker	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LT	3	53.9	1920	F	N	A	NS	OT	23	60% Stickleback	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LT	4	48.5	1420	F	N	J	NS	OT	8	50% Stickleback	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LT	5	55.6	2480	F	N	A	NS	OT	11	25% Stickleback	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LW	6	32	1250	M	N	A	M	OT	31	Empty	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LW	7	43.2	1260	M	N	A	M	OT	27	Empty	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LW	8	40	1380	F	N	A	M	OT	22	Empty	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LW	9	39.5	1120	F	N	A	M	OT	18	Empty	Kept for chemistry
Ellis Bay	SP	SP01-01	04/10/2011 18:00	05/10/2011 10:00	LW	10	38.6	880	F	N	A	M	OT	11	Empty	Kept for chemistry
Pasfield Lake	AN	AN01-01	24/09/2011 12:00	24/09/2011 12:30	NF											No fish captured
Pasfield Lake	AN	AN02-01	24/09/2011 12:00	24/09/2011 12:30	NF											No fish captured
Pasfield Lake	AN	AN03-01	24/09/2011 12:00	24/09/2011 13:00	LT	1	58.6	2010	F	N	A	ST	OT	18	10% small minnows	Kept for chemistry
Pasfield Lake	AN	AN03-01	24/09/2011 12:00	24/09/2011 13:00	LT	2	58.4	2015	M	N	A	ST	OT	19	Empty	Kept for chemistry
Pasfield Lake	AN	AN04-01	24/09/2011 12:00	24/09/2011 12:30	NF											No fish captured
Pasfield Lake	SP	SP01-01	24/09/2011 9:30	24/09/2011 11:45	NF											No fish captured
Pasfield Lake	SP	SP02-01	24/09/2011 9:45	24/09/2011 10:20	LW	1	34	500	M	N	A	SP	OT		Empty	Kept for chemistry; not analyzed
Pasfield Lake	SP	SP02-01	24/09/2011 9:45	24/09/2011 10:20	NP	2	84.4	3750	F	N	A	U	CL	8	40% unknown	Kept for chemistry
Pasfield Lake	SP	SP03-01	24/09/2011 10:30	24/09/2011 12:45	LT	1	58.6	1980	F	N	A	NS	OT	23	Empty	Kept for chemistry
Pasfield Lake	SP	SP04-01	24/09/2011 12:00	24/09/2011 15:30	NF									-		No fish captured

APPENDIX F, TABLE 8

Detailed fish capture during the 2011 technical program of the Eastern Athabasca Regional Monitoring Program, September-October 2011.

Waterbody	Method	Site	Set Date	Catch Date	Species	Fish Number	Length (cm)	Weight (g)	Sex	Released	Maturity	Spawning Condition	Age Structure Collected	Age (years)	Stomach Contents	Comments
Pasfield Lake	SP	SP05-01	24/09/2011 13:20	24/09/2011 15:10	LT	1	53.1	1620	M	N	A	NS	OT	n/a	Empty	Kept for chemistry
Pasfield Lake	SP	SP05-01	24/09/2011 13:20	24/09/2011 15:10	LT	2	58.2	1630	M	N	A	ST	OT	21	Empty	Kept for chemistry
Pasfield Lake	SP	SP06-01	24/09/2011 15:45	24/09/2011 17:45	NF											No fish captured
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	1	35.9	580	F	N	A	MT	OT	5	Empty	Composite with LW02
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	2	32.3	410	M	N	A	NS	OT	5	Empty	Composite with LW01
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	3	35.5	540	M	N	A	MT	OT	6	15% Unidentified BI	Composite with LW04
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	4	33.5	475	F	N	A	M	OT	5	Empty	Composite with LW03
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	5	36.1	528	F	N	A	NS	OT	5	Empty	Composite with LW06
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	6	32.6	420	F	N	A	NS	OT	5	20% unknown	Composite with LW05
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	7	33.4	460	F	N	J	NS	OT	5	Empty	Composite with LW08
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	8	33.1	460	M	N	A	NS	OT	5	Empty	Composite with LW07
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	9	34.3	510	F	N	A	MT	OT	5	Empty	Composite with LW10
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LW	10	30.7	350	M	N	A	NS	OT	4	Empty	Composite with LW09
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LSU	11	33.3	420	M	N	J	U	FR	10	25% Unidentified BI	Kept for chemistry
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LSU	12	38.4	800	M	N	A	U	FR	13	40% unknown	Kept for chemistry
Pasfield Lake	SP	SP07-01	24/09/2011 18:00	25/09/2011 9:00	LSU	13	45.8	1690	F	N	A	U	FR	23	40% Unidentified BI	Kept for chemistry
Pasfield Lake	SP	SP08-01	25/09/2011 9:30	25/09/2011 12:30	NF											No fish captured

Method: AN = angling, SP = Spawning Net
Species: NP = northern pike, BB = burbot, WSU = white sucker, LSU = longnose sucker, LT = lake trout, LW = lake whitefish, NF = no fish.
Sex: M = male, F = female, U = unknown.
Maturity: U = unknown, A = adult, J = juvenile
Spawning condition: MT = green, M = ripe, SP = ripe+/running ripe, ST = spent, U = unknown, NS = non-spawner
Ageing: CL = cleithra, FR = fin rays, OT = otolith
Stomach contents: BI = Benthic invertebrate remains.

APPENDIX F, TABLE 9

Detailed fish flesh chemistry data collected from the Cochrane River for the EARMP technical program, fall 2011.

Analyte[1]	Cochrane River																
	Longnose Sucker		Lake Trout					Lake Whitefish					Northern Pike				
	SP06-01-LSU02	SP06-01-LSU03	AN01-01-LT01	AN01-01-LT02	AN01-01-LT03	AN01-01-LT04	AN01-01-LT05	SP06-01-LW01	SP06-01-LW02	SP06-01-LW03	SP08-01-LW01	SP08-01-LW02	AN01-01-NP06	AN01-01-NP07	AN02-01-NP01	AN02-01-NP02	AN02-01-NP03
Metals																	
Aluminum	1.6	2.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.31	0.15	0.01	0.01	<0.01	<0.01	<0.01	0.03	0.09	0.05	0.57	0.04	<0.01	0.05	0.13	0.03	0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	0.1	0.2	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.18	0.27	0.24	0.28	0.22	0.12	0.25	0.2	0.12	0.18	0.11	0.17	0.18	0.2	0.17	0.19	0.14
Iron	3.4	11	2.2	3.4	2.1	0.7	1.7	3.3	3	2.2	1.8	2.1	11	1.5	3.4	1.8	1.3
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	1.3	0.41	0.06	0.1	0.06	0.05	0.07	0.06	0.23	0.14	0.07	0.17	0.19	0.11	0.13	0.09	0.13
Mercury	0.04	0.07	0.09	0.1	0.12	0.18	0.3	0.07	0.05	0.03	0.06	0.05	0.34	0.24	0.04	0.11	0.18
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	0.03	0.05	0.03	0.02	<0.01	0.03	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.06	0.03	0.05
Selenium	0.4	0.34	0.19	0.26	0.21	0.36	0.22	0.53	0.47	0.31	0.23	0.28	0.26	0.22	0.24	0.25	0.23
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.13	0.2	0.06	0.07	0.07	0.07	0.07	0.06	0.07	0.08	0.07	0.08	0.08	0.09	0.09	0.09	0.1
Uranium	0.006	<0.001	<0.001	<0.001	<0.001	<0.001	0.004	0.002	0.002	0.002	0.002	0.001	0.018	0.002	<0.001	0.002	0.009
Zinc	4.9	6.4	3.2	3.4	3.2	2.7	2.8	3	7.8	4.7	3	5.1	5.4	6.7	5.9	5.3	6.1
Physical Properties																	
Moisture (%)	77.34	79.75	74.01	72.45	69.01	77.64	75.75	82.51	85.72	77.81	80.67	79.64	78.49	76.84	77.79	78.47	77.74
Radionuclides																	
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0039	0.0013	0.0004	<0.0002	<0.0002	<0.0002	0.0002	0.0006	0.0008	0.0032	0.0003	0.0008	0.0024	0.0025	0.0023	0.0037	0.0012
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00005	<0.00006	<0.00007	<0.00006	<0.00006	<0.00006	<0.00006	<0.00007	<0.00006	<0.000005	<0.00008	<0.00006	<0.00007	<0.00007	<0.00006
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.00001	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements																	
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.18	0.15	0.1	0.13	0.07	0.03	0.06	0.14	0.18	0.07	0.02	0.07	0.01	0.01	0.02	0.02	0.02
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.005	0.005	0.003	<0.002	0.002	<0.002	0.002	0.008	0.003	0.002	0.005	0.008	<0.002	<0.002	0.003	<0.002	<0.002
Strontium	3.4	1.2	0.11	0.1	0.04	0.04	0.05	0.18	1.3	1.1	0.08	0.68	0.11	0.12	0.19	0.12	0.11
Vanadium	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 10

Detailed fish flesh chemistry data collected from the Fond du Lac River for the EARMP technical program, fall 2011.

Analyte[1]	Fond du Lac River																				
	Longnose Sucker					Lake Trout		Lake Whitefish					Northern Pike					White Sucker				
	SP05-01-LSU06	SP05-01-LSU07	SP05-01-LSU11	SP06-02-LSU01	SP06-02-LSU02	SP05-01-LT08	SP07-02-LT15	SP04-01-LW01	SP04-01-LW02	SP04-01-LW03	SP04-01-LW04	SP04-01-LW05	SP04-01-NP06	SP04-01-NP072	SP04-01-NP08	SP04-01-NP09	SP04-01-NP10	SP05-01-WSU01	SP05-01-WSU02	SP05-01-WSU03	SP05-01-WSU04	SP05-01-WSU05
Metals																					
Aluminum	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.08	0.04	0.05	0.07	0.02	0.02	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.04	0.02	<0.01	0.06	0.04	0.15	0.15	0.02	0.04	0.02
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	0.006	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.26	0.21	0.38	0.27	0.39	0.44	0.19	0.14	0.15	0.15	0.1	0.16	0.29	0.25	0.18	0.55	0.22	0.43	0.65	0.33	0.34	0.28
Iron	2	2	3.5	2.7	3.8	4.1	1.9	1.8	1.7	2.1	1.9	2.2	2.3	2.3	1.7	3.7	1.9	5.7	8	2.8	2.9	2.5
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.26	0.12	0.14	0.41	0.09	0.21	0.05	0.09	0.11	0.1	0.11	0.11	0.37	0.21	0.12	0.34	0.26	0.68	0.61	0.1	0.09	0.12
Mercury	0.06	0.09	0.04	0.2	0.08	0.42	0.4	0.08	0.05	0.04	0.07	0.03	0.06	0.2	0.2	0.09	0.08	0.11	0.16	0.06	0.06	0.33
Molybdenum	0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	0.04	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.02	0.04	0.03	0.03
Selenium	0.31	0.41	0.32	0.38	0.34	0.25	0.23	0.64	0.4	0.4	0.78	0.31	0.26	0.31	0.24	0.27	0.28	0.32	0.44	0.37	0.27	0.21
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.09	0.07	0.07	0.07	0.07	0.07	0.07	0.07	0.06	0.06	0.07	0.06	0.07	0.07	0.06	0.06	0.08	0.09	0.09	0.07	0.08	0.07
Uranium	<0.001	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.001	<0.001	<0.001
Zinc	4.2	4	5.4	3.6	4.9	10	3.1	3.3	3	3.6	2.6	4.1	5.1	4.2	4	8.3	5.3	5.5	5.9	5.6	3.5	3.5
Physical Properties																						
Moisture (%)	75.91	76.73	76.04	79.62	79.17	72.27	79.61	75.91	78.64	79.11	75.83	77.43	77.94	76.92	78.89	78.56	78.58	77.74	78.84	76.68	75.14	78.11
Radionuclides																						
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0021	0.0029	0.0034	0.0023	0.0007	<0.0002	<0.0002	0.0008	0.0011	<0.0002	0.0004	0.0005	0.0031	0.0016	0.0011	0.0032	0.0031	0.002	0.0012	0.0021	0.0025	0.0008
Radium-226 (Bq/g)	<0.00006	<0.00006	<0.00006	0.00009	<0.00006	<0.0001	<0.00007	<0.0002	0.00020	<0.00007	<0.00006	0.00009	<0.00006	0.00010	<0.00007	0.00007	<0.00007	<0.00006	<0.00006	<0.00007	<0.00006	0.00010
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0001	<0.0003	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements																						
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.19	0.22	0.15	0.06	0.1	0.04	0.04	0.11	0.14	0.19	0.31	0.07	0.02	0.03	0.03	0.02	0.02	0.05	0.05	0.2	0.08	0.04
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	0.002	0.003	0.004	0.003	0.003	<0.002	<0.002	0.002	<0.002	0.002	0.006	0.003	0.009	0.004	0.006	0.003	0.006	0.008	0.004	0.003	0.006
Strontium	0.51	0.06	0.07	0.55	0.09	0.49	0.03	0.13	0.09	0.12	0.12	0.11	0.46	0.22	0.07	0.57	0.53	1.7	1.1	0.06	0.07	0.07
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 11

Detailed fish flesh chemistry data collected from Cree Lake for the EARMP technical program, fall 2011.

Analyte[1]	Cree Lake																			
	Longnose Sucker					Lake Trout					Lake Whitefish					White Sucker				
	SP09-01-LSU07	SP09-01-LSU08+ LSU09	SP09-01-LSU10+ LSU11	SP09-01-LSU12+ LSU13	SP09-01-LSU14+ LSU15	AN01-01-LT01	AN01-01-LT02	AN01-01-LT03	AN01-01-LT04	SP01-01-LT01	SP01-01, SP03-01-LW02/LW02	SP06-01-LW02	SP07-01, SP09-01-LW02/LW01	SP09-01-LW19	SP09-01-LW20/ LW21	SP09-01-WSU02	SP09-01-WSU03	SP09-01-WSU04	SP09-01-WSU05	SP09-01-WSU06
Metals																				
Aluminum	0.5	0.7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.7	<0.5	0.6
Barium	0.08	0.05	0.02	0.06	0.08	0.6	<0.01	0.02	0.03	0.01	0.15	0.57	0.68	0.55	0.6	0.04	0.16	0.06	0.04	0.04
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	0.005	<0.002	0.004	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.34	0.25	0.19	0.26	0.18	0.18	0.31	0.85	0.33	0.34	0.32	0.18	0.21	0.26	0.28	0.36	0.22	0.25	0.2	0.39
Iron	4.6	4.6	1.8	8.5	1.8	1.8	3.2	5.8	2.1	2.2	2.4	1.6	3	2.1	4.4	3.7	1.9	5.1	2.4	3.7
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.69	1.4	0.31	2	0.71	0.09	0.15	0.13	0.1	0.11	0.55	0.08	0.12	0.11	0.14	0.28	0.63	0.81	0.23	0.22
Mercury	0.04	0.01	0.02	0.01	0.02	0.04	0.09	0.04	0.06	0.04	0.01	0.02	0.02	0.05	0.02	0.01	0.02	0.01	0.02	0.01
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.02	0.07	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	0.05	<0.01	0.01	<0.01	<0.01	<0.01
Selenium	0.27	0.57	0.53	0.32	0.33	0.22	0.2	0.28	0.24	0.26	0.28	0.42	0.51	0.29	0.52	0.21	0.21	0.2	0.18	0.2
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.11	0.09	0.08	0.08	0.08	0.06	0.09	0.07	0.08	0.08	0.08	0.1	0.07	0.08	0.08	0.06	0.09	0.08	0.08	0.09
Uranium	0.003	0.002	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.004	0.002	0.001	0.001	<0.001	<0.001	<0.001	<0.001
Zinc	5.1	5	4.1	4.8	4.8	2.5	5.5	5.4	3.3	4.7	12	4.1	6.4	3.9	6.1	4.1	5.5	4.7	4.3	4.4
Physical Properties																				
Moisture (%)	75.72	77.95	77.45	77.03	77.28	77.12	76.83	72.94	72.92	75.39	77.79	73.24	77.39	76.93	78.46	77.35	76.3	79.19	79.36	73.98
Radionuclides																				
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0007	0.0022	0.0035	0.003	0.0023	<0.0002	0.0002	<0.0002	<0.0002	<0.0002	0.0008	<0.0002	0.0022	<0.0002	0.0023	0.002	0.0008	0.002	0.001	0.0006
Radium-226 (Bq/g)	<0.00007	<0.0001	<0.00006	<0.0001	<0.0001	0.0001	0.0003	<0.00006	0.00007	0.00009	<0.00008	<0.00007	0.0001	<0.00006	0.00008	<0.00008	<0.00009	0.0001	<0.00007	0.0002
Thorium-230 (Bq/g)	<0.0001	<0.0003	<0.0001	<0.0002	<0.0003	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0002	<0.0001	<0.0002
Trace Elements																				
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.08	0.02	0.02	0.04	0.06	0.02	0.02	0.03	0.02	0.02	0.02	0.03	0.02	0.06	0.01	0.05	0.11	0.06	0.06	0.05
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	0.006	0.008	0.004	0.005	<0.002	<0.002	0.004	<0.002	0.002	0.002	<0.002	0.004	<0.002	0.005	0.003	<0.002	0.005	0.002	0.003
Strontium	0.58	0.37	0.23	0.72	0.8	0.18	0.19	0.45	0.16	0.25	4.3	0.47	0.56	0.25	0.33	0.22	1.2	0.54	0.21	0.2
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 12

Detailed fish flesh chemistry data collected from the Crackingstone Inlet for the EARMP technical program, fall 2011.

Analyte[1]	Crackingstone Inlet														
	Lake Trout					Lake Whitefish					Northern Pike				
	SP01-01-LT01	SP01-01-LT02	SP01-01-LT03	SP01-01-LT04	SP01-01-LT05	SP01-01-LW06	SP01-01-LW07	SP01-01-LW08	SP01-01-LW09	SP01-01-LW10	SP01-01-NP01	SP01-01-NP02	SP01-01-NP03	SP01-01-NP04	SP01-01-NP05
Metals															
Aluminum	0.9	<0.5	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.03	<0.01	0.04	0.01	<0.01	0.63	0.6	0.01	0.17	0.04	0.02	0.04	0.01	0.12	<0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.27	0.13	0.2	0.24	0.22	0.19	0.25	0.15	0.19	0.2	0.28	0.25	0.25	0.16	0.17
Iron	5.3	1.9	1.9	2.3	3.4	1.3	2.1	4.4	1.8	4.3	2.8	2.3	2.4	2	1.3
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.2	0.06	0.07	0.06	0.09	0.09	0.08	0.07	0.11	0.11	0.12	0.13	0.11	0.13	0.07
Mercury	0.13	0.17	0.18	0.17	0.13	0.04	0.04	0.09	0.02	0.02	0.09	0.06	0.05	0.13	0.14
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	<0.01	0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	0.04	0.03	<0.01	<0.01	<0.01
Selenium	0.16	0.15	0.12	0.21	0.18	0.18	0.21	0.58	2.6	0.28	0.64	0.52	0.32	0.36	0.42
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.11	0.07	0.08	0.08	0.08	0.07	0.07	0.06	0.08	0.07	0.09	0.07	0.07	0.09	0.07
Uranium	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	0.007	0.006	0.008	0.012	<0.001	<0.001	<0.001	<0.001	<0.001
Zinc	6.5	3.4	3.8	2.6	7.8	3.6	4.4	5.3	5	4.1	6.2	6.6	7.9	6	3.5
Physical Properties															
Moisture (%)	66.65	72.8	72.26	70.93	75.14	75.91	75.86	76.21	73.83	74.66	78.43	78.59	79.09	78.21	77.81
Radionuclides															
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0007	0.0007	<0.0002	0.0008	0.001	0.0003	0.001	0.0004
Radium-226 (Bq/g)	<0.00007	<0.00006	<0.00007	<0.00006	0.0004	<0.00008	<0.00006	0.0003	<0.00007	<0.00008	0.00006	<0.00006	<0.00006	<0.00006	<0.00006
Thorium-230 (Bq/g)	<0.0001	0.0002	<0.0001	0.0001	<0.0001	0.0004	<0.0001	<0.0002	<0.0001	<0.0002	0.0003	<0.0001	<0.0001	<0.0001	<0.0001
Trace Elements															
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.11	0.08	0.12	0.07	0.06	0.12	0.05	0.12	0.11	0.11	0.05	0.06	0.05	0.05	0.1
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	0.009	0.004	<0.002	0.004	0.002	0.002	0.002	0.002	0.002
Strontium	0.17	0.17	0.46	0.07	0.12	0.22	0.18	0.34	0.75	0.45	0.14	0.27	0.13	0.57	0.09
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 13

Detailed fish flesh chemistry data collected from Ellis Bay for the EARMP technical program, fall 2011.

Analyte[1]	Ellis Bay									
	Lake Trout					Lake Whitefish				
	SP01-01-LT01	SP01-01-LT02	SP01-01-LT03	SP01-01-LT04	SP01-01-LT05	SP01-01-LW06	SP01-01-LW07	SP01-01-LW08	SP01-01-LW09	SP01-01-LW10
Metals										
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.04	0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.06	<0.01	<0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.52	0.52	0.11	0.32	0.28	0.12	0.15	0.38	0.11	0.15
Iron	4.5	3	1	2.2	2	1.5	1.2	3.6	1.1	2.2
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.1	0.09	0.09	0.07	0.08	0.12	0.19	0.13	0.12	0.1
Mercury	0.13	0.2	0.28	0.07	0.18	0.07	0.06	0.03	0.03	0.02
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.03	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	0.02	<0.01	<0.01
Selenium	0.14	0.18	0.15	0.16	0.18	0.29	0.25	0.25	0.22	0.25
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.07	0.15	0.06	0.07	0.06	0.07	0.07	0.06	0.06	0.07
Uranium	0.014	<0.001	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	<0.001
Zinc	11	3.8	2.9	3.8	3.5	3	2.8	4.4	3.3	3.1
Physical Properties										
Moisture (%)	73.73	71.7	74.1	70.34	67.36	74.81	78.24	73.86	77.91	76.16
Radionuclides										
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	0.0005	<0.0002	<0.0002	<0.0002	<0.0002
Radium-226 (Bq/g)	<0.00007	<0.00006	0.0002	0.00009	0.0001	<0.00006	<0.00006	<0.0002	<0.00006	0.0003
Thorium-230 (Bq/g)	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0001	<0.0003	<0.0001	<0.0001
Trace Elements										
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.12	0.08	0.12	0.08	0.12	0.38	0.24	0.36	0.31	0.17
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	0.003	<0.002	<0.002	0.002	<0.002	<0.002	0.007	0.002	0.002
Strontium	0.3	0.19	0.26	0.2	0.15	0.15	0.74	1	0.18	0.24
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 14

Detailed fish flesh chemistry data collected from Waterbury Lake for the EARMP technical program, fall 2011.

Analyte[1]	Waterbury Lake															
	Longnose Sucker					Lake Trout					Lake Whitefish			Northern Pike		
	SP08-01-LSU11+LSU12	SP08-01-LSU13	SP08-01-LSU14	SP08-01-LSU15+LSU16	SP08-01-LSU17+LSU18	SP08-01-LT03	SP08-01-LT04	SP08-01-LT05	SP08-01-LT06	SP08-01-LT07	SP08-01-LW08	SP08-01-LW09	SP08-01-LW10	SP01-01-NP03	SP08-01-NP01	SP08-01-NP02
Metals																
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.22	0.06	0.07	0.08	0.04	<0.01	0.01	<0.01	<0.01	<0.01	0.01	0.05	0.89	<0.01	0.01	0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.11	0.11	0.15	0.24	0.14	0.27	0.31	0.27	0.22	0.3	0.17	0.14	0.19	0.17	0.15	0.17
Iron	1.5	0.9	1.2	1.9	1.6	3.1	2.8	3.5	2.6	2.9	2.9	1.9	3.1	2.1	1.5	1.5
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Manganese	0.43	0.57	0.99	0.33	0.28	0.09	0.11	0.09	0.15	0.1	0.14	0.24	0.1	0.11	0.11	0.17
Mercury	0.03	0.02	0.02	0.02	0.02	0.19	0.1	0.16	0.16	0.17	0.08	0.01	0.01	0.2	0.21	0.14
Molybdenum	<0.02	<0.02	0.04	0.02	0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.02	<0.01	0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	0.02	0.03	0.02
Selenium	0.17	0.25	0.21	0.25	0.2	0.31	0.17	0.14	0.16	0.2	0.8	0.66	1.1	0.32	0.28	0.21
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.06	0.06	0.06	0.08	0.06	0.08	0.08	0.08	0.08	0.07	0.07	0.08	0.07	0.08	0.07	0.07
Uranium	<0.001	<0.001	0.004	<0.001	<0.001	0.003	<0.001	<0.001	<0.001	<0.001	<0.001	0.001	0.002	0.003	0.018	0.002
Zinc	7.2	3.6	3.6	5.9	3.7	3.8	4	9.1	7.6	3.3	4.4	4.9	3.7	3.9	4.8	4
Physical Properties																
Moisture (%)	80.61	80.66	79.81	78.71	81.03	78.09	74.57	77.94	74.29	75.83	79.39	72.53	79.47	81.23	75.81	78.74
Radionuclides																
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0004	0.0004	0.0003	0.0007	<0.0002	<0.0002	0.0003	<0.0002	0.0004	0.0003	0.0009	0.002	0.0014	0.0004	0.0003	0.0013
Radium-226 (Bq/g)	<0.00007	<0.00007	0.00008	<0.00007	<0.00007	<0.00006	<0.00006	<0.00005	<0.00006	0.0001	0.0001	0.0001	<0.00008	<0.00006	<0.0002	<0.00006
Thorium-230 (Bq/g)	<0.0001	<0.0001	0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0002	<0.0002	<0.0001	<0.0004	<0.0001
Trace Elements																
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.03	0.04	0.05	0.08	0.08	0.02	0.07	0.04	0.03	0.03	0.03	0.03	0.03	0.01	0.02	0.02
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	<0.002	0.004	<0.002	0.004	<0.002	0.002	0.002	<0.002	<0.002	0.003	0.003	<0.002	0.002	<0.002	<0.002
Strontium	0.68	0.83	1.4	0.68	0.39	0.13	0.19	0.17	0.19	0.1	0.34	1	0.21	0.1	0.09	0.31
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 15

Detailed fish flesh chemistry data collected from Pasfield Lake for the EARMP technical program, fall 2011.

Analyte[1]	Pasfield Lake													
	Longnose Sucker			Lake Trout					Lake Whitefish					Northern Pike
	SP07-01-LSU11	SP07-01-LSU12	SP07-01-LSU13	AN03-01-LT01	AN03-01-LT02	SP03-01-LT01	SP05-01-LT01	SP05-01-LT02	SP07-01-LW01/LW02	SP07-01-LW03/LW04	SP07-01-LW05/LW06	SP07-01-LW07/LW08	SP07-01-LW09/LW10	SP02-01-NP02
Metals														
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	0.04	0.08	0.06	0.01	<0.01	0.69	0.02	0.63	0.71	0.68	0.66	0.06	0.02	0.01
Boron	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Cadmium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Chromium	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Copper	0.26	0.25	0.21	0.28	0.71	0.55	0.32	0.32	0.22	0.19	0.27	0.2	0.27	0.15
Iron	2.2	3.9	2	3.7	6.8	8	3	5	1.4	2	3.3	2.5	3.2	1.5
Lead	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	<0.002
Manganese	0.18	0.33	0.27	0.09	0.09	0.08	0.1	0.14	0.1	0.11	0.11	0.17	0.12	0.11
Mercury	0.01	0.02	0.04	0.09	0.08	0.16	0.04	0.1	<0.01	<0.01	<0.01	<0.01	<0.01	0.11
Molybdenum	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Nickel	0.03	0.05	<0.01	<0.01	<0.01	<0.01	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01
Selenium	0.26	0.25	0.25	0.35	0.37	0.37	0.35	0.33	0.26	0.28	0.27	0.27	0.31	0.21
Silver	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Tin	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Titanium	0.06	0.09	0.08	0.07	0.07	0.08	0.08	0.07	0.08	0.08	0.07	0.07	0.08	0.19
Uranium	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.005	<0.001
Zinc	4.4	7.7	4.1	4.1	4.8	5	4.7	13	5.8	5.1	6.5	6.2	5.7	6.9
Physical Properties														
Moisture (%)	72.49	78	72.37	77.03	79.44	77.88	74.17	79.65	78.17	77.43	77.92	78.46	78.52	78.45
Radionuclides														
Lead-210 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Polonium-210 (Bq/g)	0.0034	0.0016	0.0026	<0.0002	0.0002	0.0002	<0.0002	0.0004	0.0058	0.0038	0.008	0.0055	0.0049	0.001
Radium-226 (Bq/g)	0.0006	0.00007	<0.00006	<0.00007	0.0002	<0.00006	<0.00007	<0.00006	<0.00007	0.00009	<0.00006	<0.00007	<0.00007	<0.0001
Thorium-230 (Bq/g)	<0.0002	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0001	<0.0003
Trace Elements														
Antimony	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Arsenic	0.11	0.14	0.08	0.09	0.05	0.03	0.05	0.01	0.08	0.04	0.04	0.07	0.04	0.02
Beryllium	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	0.003	0.003	<0.002	<0.002	0.006	0.004	0.002	0.003	<0.002	<0.002	0.002	0.003	0.004	<0.002
Strontium	0.39	2.3	0.92	0.34	0.23	0.45	0.58	1.4	0.72	0.42	1.2	2.2	0.51	0.27
Vanadium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Metals														
Aluminum	Mean	2	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.54	0.5	0.5	0.58
	S.D.	0.6	0[2]	0	0	0	0	0	0	0	0.1	0	0	0.1
	Minimum	1.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	2.4	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.5	0.5	0.7
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	5	5	5	4	2	5	5	5	3	5	5	2
Barium	Mean	0.230	0.010	0.156	0.046	0.052	0.015	0.012	0.034	0.076	0.058	0.134	0.510	0.068
	S.D.	0.11	0	0.23	0.05	0.02	0.01	0.00	0.02	0.07	0.02	0.26	0.21	0.05
	Minimum	0.15	0.01	0.03	0.01	0.02	0.01	0.01	0.01	0.02	0.02	0.01	0.15	0.04
	Maximum	0.31	0.01	0.57	0.13	0.08	0.02	0.02	0.06	0.15	0.08	0.6	0.68	0.16
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	3	0	1	0	1	4	1	0	0	1	0	0
Boron	Mean	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Cadmium	Mean	0.002	0.002	0.002	0.002	0.0022	0.002	0.0032	0.002	0.002	0.003	0.002	0.002	0.002
	S.D.	0	0	0	0	0.0004	0	0.0018	0	0	0.0014	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.003	0.002	0.006	0.002	0.002	0.005	0.002	0.002	0.002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	4	2	3	5	4	2	5	5	4
Chromium	Mean	0.1	0.12	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0.04	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.2	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	3	5	5	5	2	5	5	5	5	5	5	5
Copper	Mean	0.225	0.222	0.156	0.176	0.302	0.315	0.140	0.298	0.406	0.244	0.402	0.250	0.284
	S.D.	0.064	0.061	0.039	0.023	0.079	0.177	0.023	0.147	0.147	0.064	0.259	0.056	0.086
	Minimum	0.18	0.12	0.11	0.14	0.21	0.19	0.1	0.18	0.28	0.18	0.18	0.18	0.2
	Maximum	0.27	0.28	0.2	0.2	0.39	0.44	0.16	0.55	0.65	0.34	0.85	0.32	0.39
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Iron	Mean	7.2	2.0	2.5	3.8	2.8	3.0	1.9	2.4	4.4	4.3	3.0	2.7	3.4
	S.D.	5.4	1.0	0.6	4.1	0.8	1.6	0.2	0.8	2.4	2.8	1.6	1.1	1.3
	Minimum	3.4	0.7	1.8	1.3	2	1.9	1.7	1.7	2.5	1.8	1.8	1.6	1.9
	Maximum	11	3.4	3.3	11	3.8	4.1	2.2	3.7	8	8.5	5.8	4.4	5.1
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.0024	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0.0009	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.004	0.002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	4	5
Manganese	Mean	0.855	0.068	0.134	0.130	0.204	0.130	0.104	0.260	0.320	1.022	0.116	0.200	0.434
	S.D.	0.629	0.019	0.071	0.037	0.132	0.113	0.009	0.101	0.298	0.673	0.024	0.197	0.270
	Minimum	0.41	0.05	0.06	0.09	0.09	0.05	0.09	0.12	0.09	0.31	0.09	0.08	0.22
	Maximum	1.3	0.1	0.23	0.19	0.41	0.21	0.11	0.37	0.68	2	0.15	0.55	0.81
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	Mean	0.055	0.158	0.052	0.182	0.094	0.410	0.054	0.126	0.144	0.020	0.054	0.024	0.014
	S.D.	0.021	0.087	0.015	0.116	0.062	0.014	0.021	0.068	0.112	0.012	0.022	0.015	0.005
	Minimum	0.04	0.09	0.03	0.04	0.04	0.4	0.03	0.06	0.06	0.01	0.04	0.01	0.01
	Maximum	0.07	0.3	0.07	0.34	0.2	0.42	0.08	0.2	0.33	0.04	0.09	0.05	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Molybdenum	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	4	2	5	5	5	5	5	5	5
Nickel	Mean	0.020	0.028	0.014	0.032	0.018	0.010	0.010	0.012	0.026	0.024	0.012	0.022	0.010
	S.D.	0.014	0.015	0.005	0.023	0.013	0	0	0.004	0.011	0.026	0.004	0.018	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.03	0.05	0.02	0.06	0.04	0.01	0.01	0.02	0.04	0.07	0.02	0.05	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	1	1	3	2	3	2	5	4	1	3	4	3	4

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Selenium	Mean	0.370	0.248	0.364	0.240	0.352	0.240	0.506	0.272	0.322	0.404	0.240	0.404	0.200
	S.D.	0.042	0.068	0.129	0.016	0.042	0.014	0.196	0.026	0.089	0.136	0.032	0.115	0.012
	Minimum	0.34	0.19	0.23	0.22	0.31	0.23	0.31	0.24	0.21	0.27	0.2	0.28	0.18
	Maximum	0.4	0.36	0.53	0.26	0.41	0.25	0.78	0.31	0.44	0.57	0.28	0.52	0.21
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Thallium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Tin	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Titanium	Mean	0.165	0.068	0.072	0.090	0.074	0.070	0.064	0.068	0.080	0.088	0.076	0.082	0.080
	S.D.	0.049	0.004	0.008	0.007	0.009	0	0.005	0.008	0.010	0.013	0.011	0.011	0.012
	Minimum	0.13	0.06	0.06	0.08	0.07	0.07	0.06	0.06	0.07	0.08	0.06	0.07	0.06
	Maximum	0.2	0.07	0.08	0.1	0.09	0.07	0.07	0.08	0.09	0.11	0.09	0.1	0.09
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Uranium	Mean	0.0035	0.0016	0.0018	0.0064	0.0010	0.0010	0.0010	0.0010	0.0012	0.0016	0.0012	0.0018	0.0010
	S.D.	0.0035	0.0013	0.0004	0.0072	0	0	0	0	0.0004	0.0009	0.0004	0.0013	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Maximum	0.006	0.004	0.002	0.018	0.001	0.001	0.001	0.001	0.002	0.003	0.002	0.004	0.001
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	1	4	0	1	4	2	5	5	2	3	4	2	4

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Zinc	Mean	5.7	3.1	4.7	5.9	4.4	6.6	3.3	5.4	4.8	4.8	4.3	6.5	4.6
	S.D.	1.1	0.3	2.0	0.6	0.7	4.9	0.6	1.7	1.2	0.4	1.3	3.3	0.5
	Minimum	4.9	2.7	3	5.3	3.6	3.1	2.6	4	3.5	4.1	2.5	3.9	4.1
	Maximum	6.4	3.4	7.8	6.7	5.4	10	4.1	8.3	5.9	5.1	5.5	12	5.5
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical Properties														
Moisture (%)	Mean	78.5	73.8	81.3	77.9	77.5	75.9	77.4	78.2	77.3	77.1	75.0	76.8	77.2
	S.D.	1.704127	3.292221	3.013661	0.676114	1.8	5.2	1.5	0.8	1.4	0.8	2.0	2.0	2.2
	Minimum	77.34	69.01	77.81	76.84	75.9	72.3	75.8	76.9	75.1	75.7	72.9	73.2	74.0
	Maximum	79.75	77.64	85.72	78.49	79.6	79.6	79.1	78.9	78.8	78.0	77.1	78.5	79.4
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Radionuclides														
Lead-210 (Bq/g)	Mean	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Maximum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Polonium-210 (Bq/g)	Mean	0.00260	0.00024	0.00114	0.00242	0.00228	0.00020	0.00060	0.00242	0.00172	0.00234	0.00020	0.00114	0.00128
	S.D.	0.00184	0.00009	0.00117	0.00089	0.00102	0	0.00035	0.00099	0.00070	0.00106	0	0.00104	0.00067
	Minimum	0.0013	0.0002	0.0003	0.0012	0.0007	0.0002	0.0002	0.0011	0.0008	0.0007	0.0002	0.0002	0.0006
	Maximum	0.0039	0.0004	0.0032	0.0037	0.0034	0.0002	0.0011	0.0032	0.0025	0.0035	0.0002	0.0023	0.002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	3	0	0	0	2	1	0	0	0	4	2	0
Radium-226 (Bq/g)	Mean	0.00006	0.00006	0.00005	0.00007	0.00007	0.00009	0.00012	0.00007	0.00007	0.00009	0.00012	0.00008	0.00011
	S.D.	0	0.00001	0.00003	0.00001	0.00001	0.00002	0.00007	0.00002	0.00002	0.00002	0.00010	0.00001	0.00005
	Minimum	0.00006	0.00005	0.000005	0.00006	0.00006	0.00007	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00007
	Maximum	0.00006	0.00007	0.00007	0.00008	0.00009	0.0001	0.0002	0.0001	0.0001	0.0001	0.0003	0.0001	0.0002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	4	2	3	3	4	5	1	3	3
Thorium-230 (Bq/g)	Mean	0.00010	0.00010	0.00008	0.00012	0.00010	0.00015	0.00016	0.00010	0.00010	0.00020	0.00012	0.00012	0.00018
	S.D.	0	0	0.00004	0.00004	0	0.00007	0.00009	0	0	0.00010	0.00004	0.00004	0.00004
	Minimum	0.0001	0.0001	0.00001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	Maximum	0.0001	0.0001	0.0001	0.0002	0.0001	0.0002	0.0003	0.0001	0.0001	0.0003	0.0002	0.0002	0.0002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Trace Elements														
Antimony	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Arsenic	Mean	0.165	0.078	0.096	0.016	0.144	0.040	0.164	0.024	0.084	0.044	0.022	0.028	0.066
	S.D.	0.021	0.038	0.063	0.005	0.065	0	0.093	0.005	0.067	0.026	0.004	0.019	0.025
	Minimum	0.15	0.03	0.02	0.01	0.06	0.04	0.07	0.02	0.04	0.02	0.02	0.01	0.05
	Maximum	0.18	0.13	0.18	0.02	0.22	0.04	0.31	0.03	0.2	0.08	0.03	0.06	0.11
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Beryllium	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Cobalt	Mean	0.005	0.002	0.005	0.002	0.003	0.003	0.003	0.005	0.005	0.005	0.002	0.003	0.003
	S.D.	0	0.000	0.003	0.000	0.001	0.001	0.002	0.003	0.002	0.002	0.001	0.001	0.001
	Minimum	0.005	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.003	0.002	0.002	0.002
	Maximum	0.005	0.003	0.008	0.003	0.004	0.003	0.006	0.009	0.008	0.008	0.004	0.005	0.005
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	2	0	4	0	1	2	0	0	0	3	2	1
Strontium	Mean	2.30	0.07	0.67	0.13	0.26	0.26	0.11	0.37	0.60	0.54	0.25	1.18	0.47
	S.D.	1.56	0.03	0.54	0.03	0.25	0.33	0.02	0.22	0.76	0.24	0.12	1.75	0.43
	Minimum	1.2	0.04	0.08	0.11	0.06	0.03	0.09	0.07	0.06	0.23	0.16	0.25	0.2
	Maximum	3.4	0.11	1.3	0.19	0.55	0.49	0.13	0.57	1.7	0.8	0.45	4.3	1.2
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanadium	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	1	5	5	5	5	2	5	5	5	5	5	5	5

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Metals														
Aluminum	Mean	0.58	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	S.D.	0.2	0	0	0	0	0	0	0	0	0	0	0	-
	Minimum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	0.9	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	3	5	5	5	5	5	5	3	3	3	5	5	1
Barium	Mean	0.020	0.290	0.040	0.016	0.026	0.094	0.010	0.317	0.010	0.060	0.272	0.426	0.010
	S.D.	0.01	0.30	0.05	0.01	0.02	0.07	0	0.50	0	0.02	0.35	0.35	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.04	0.01	0.01	0.01	0.04	0.01	0.02	0.01
	Maximum	0.04	0.63	0.12	0.04	0.06	0.22	0.01	0.89	0.01	0.08	0.69	0.71	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	2	0	1	3	3	0	4	0	1	0	1	0	0
Boron	Mean	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Cadmium	Mean	0.002	0.0022	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0.0004	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	4	5	5	5	5	5	3	3	3	5	5	1
Chromium	Mean	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	Maximum	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Copper	Mean	0.212	0.196	0.222	0.350	0.182	0.150	0.274	0.167	0.163	0.240	0.436	0.230	0.150
	S.D.	0.053	0.036	0.054	0.174	0.112	0.053	0.035	0.025	0.012	0.026	0.187	0.038	0
	Minimum	0.13	0.15	0.16	0.11	0.11	0.11	0.22	0.14	0.15	0.21	0.28	0.19	0.15
	Maximum	0.27	0.25	0.28	0.52	0.38	0.24	0.31	0.19	0.17	0.26	0.71	0.27	0.15
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Iron	Mean	3.0	2.8	2.2	2.5	1.9	1.4	3.0	2.6	1.7	2.7	5.3	2.5	1.5
	S.D.	1.4	1.5	0.6	1.3	1.0	0.4	0.3	0.6	0.3	1.0	2.1	0.8	0
	Minimum	1.9	1.3	1.3	1	1.1	0.9	2.6	1.9	1.5	2	3	1.4	1.5
	Maximum	5.3	4.4	2.8	4.5	3.6	1.9	3.5	3.1	2.1	3.9	8	3.3	1.5
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0.0004	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	4	2	3	3	5	4	1
Manganese	Mean	0.096	0.092	0.112	0.086	0.132	0.520	0.108	0.160	0.130	0.260	0.100	0.122	0.110
	S.D.	0.059	0.018	0.025	0.011	0.034	0.285	0.025	0.072	0.035	0.075	0.023	0.028	0
	Minimum	0.06	0.07	0.07	0.07	0.1	0.28	0.09	0.1	0.11	0.18	0.08	0.1	0.11
	Maximum	0.2	0.11	0.13	0.1	0.19	0.99	0.15	0.24	0.17	0.33	0.14	0.17	0.11
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	Mean	0.156	0.042	0.094	0.172	0.042	0.022	0.156	0.033	0.183	0.023	0.094	0.010	0.110
	S.D.	0.024	0.029	0.040	0.079	0.022	0.004	0.034	0.040	0.038	0.015	0.043	0	0
	Minimum	0.13	0.02	0.05	0.07	0.02	0.02	0.1	0.01	0.14	0.01	0.04	0.01	0.11
	Maximum	0.18	0.09	0.14	0.28	0.07	0.03	0.19	0.08	0.21	0.04	0.16	0.01	0.11
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	5	0
Molybdenum	Mean	0.02	0.02	0.02	0.02	0.02	0.026	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0.009	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	4	5	5	5	2	5	3	3	3	5	5	1
Nickel	Mean	0.012	0.024	0.020	0.014	0.012	0.016	0.010	0.010	0.023	0.030	0.010	0.012	0.010
	S.D.	0.004	0.031	0.014	0.009	0.004	0.009	0	0	0.006	0.020	0	0.004	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
	Maximum	0.02	0.08	0.04	0.03	0.02	0.03	0.01	0.01	0.03	0.05	0.01	0.02	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	3	4	3	3	4	2	5	2	0	1	4	4	1

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Selenium	Mean	0.164	0.770	0.452	0.162	0.252	0.216	0.196	0.853	0.270	0.253	0.354	0.278	0.210
	S.D.	0.034	1.035	0.129	0.018	0.025	0.034	0.067	0.225	0.056	0.006	0.017	0.019	0
	Minimum	0.12	0.18	0.32	0.14	0.22	0.17	0.14	0.66	0.21	0.25	0.33	0.26	0.21
	Maximum	0.21	2.6	0.64	0.18	0.29	0.25	0.31	1.1	0.32	0.26	0.37	0.31	0.21
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Thallium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	5	5	4	5	5	5	3	3	3	5	5	1
Tin	Mean	0.01	0.012	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0.004	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	4	5	5	5	5	5	3	3	3	5	5	1
Titanium	Mean	0.084	0.070	0.078	0.082	0.066	0.064	0.078	0.073	0.073	0.077	0.074	0.076	0.190
	S.D.	0.015	0.007	0.011	0.038	0.005	0.009	0.004	0.006	0.006	0.015	0.005	0.005	0
	Minimum	0.07	0.06	0.07	0.06	0.06	0.06	0.07	0.07	0.07	0.06	0.07	0.07	0.19
	Maximum	0.11	0.08	0.09	0.15	0.07	0.08	0.08	0.08	0.08	0.09	0.08	0.08	0.19
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Uranium	Mean	0.0010	0.0068	0.0010	0.0036	0.0012	0.0016	0.0014	0.0013	0.0077	0.0010	0.0010	0.0018	0.0010
	S.D.	0	0.0040	0	0.0058	0.0004	0.0013	0.0009	0.0006	0.0090	0	0	0.002	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.002	0.001	0.001	0.001	0.001
	Maximum	0.001	0.012	0.001	0.014	0.002	0.004	0.003	0.002	0.018	0.001	0.001	0.005	0.001
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	1	5	4	4	4	4	1	0	3	5	4	1

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Zinc	Mean	4.8	4.5	6.0	5.0	3.3	4.8	5.6	4.3	4.2	5.4	6.3	5.9	6.9
	S.D.	2.2	0.7	1.6	3.4	0.6	1.7	2.6	0.6	0.5	2.0	3.7	0.5	0
	Minimum	2.6	3.6	3.5	2.9	2.8	3.6	3.3	3.7	3.9	4.1	4.1	5.1	6.9
	Maximum	7.8	5.3	7.9	11	4.4	7.2	9.1	4.9	4.8	7.7	13	6.5	6.9
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical Properties														
Moisture (%)	Mean	71.6	75.3	78.4	71.4	76.2	80.2	76.1	77.1	78.6	74.3	77.6	78.1	78.5
	S.D.	3.1	1.0	0.5	2.7	1.9	0.9	1.8	4.0	2.7	3.2	2.2	0.4	0
	Minimum	66.7	73.8	77.8	67.4	73.9	78.7	74.3	72.5	75.8	72.4	74.2	77.4	78.5
	Maximum	75.1	76.2	79.1	74.1	78.2	81.0	78.1	79.5	81.2	78.0	79.7	78.5	78.5
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Radionuclides														
Lead-210 (Bq/g)	Mean	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	Maximum	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Polonium-210 (Bq/g)	Mean	0.00020	0.00040	0.00070	0.00020	0.00026	0.00040	0.00028	0.00143	0.00067	0.00253	0.00024	0.00560	0.00100
	S.D.	0	0.00027	0.00033	0	0.00013	0.00019	0.00008	0.00055	0.00055	0.00090	0.00009	0.00154	0
	Minimum	0.0002	0.0002	0.0003	0.0002	0.0002	0.0002	0.0002	0.0009	0.0003	0.0016	0.0002	0.0038	0.001
	Maximum	0.0002	0.0007	0.001	0.0002	0.0005	0.0007	0.0004	0.002	0.0013	0.0034	0.0004	0.008	0.001
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	3	0	5	4	1	2	0	0	0	2	0	0
Radium-226 (Bq/g)	Mean	0.00013	0.00012	0.00006	0.00010	0.00014	0.00007	0.00007	0.00009	0.00011	0.00024	0.00009	0.00007	0.00010
	S.D.	0.00015	0.00010	0	0.00006	0.00011	0.000004	0.00002	0.00001	0.00008	0.00031	0.00006	0.00001	0
	Minimum	0.00006	0.00006	0.00006	0.00006	0.00006	0.00007	0.00005	0.00008	0.00006	0.00006	0.00006	0.00006	0.0001
	Maximum	0.0004	0.0003	0.00006	0.0002	0.0003	0.00008	0.0001	0.0001	0.0002	0.0006	0.0002	0.00009	0.0001
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	4	4	2	4	4	4	1	3	1	4	4	1
Thorium-230 (Bq/g)	Mean	0.00012	0.00020	0.00014	0.00014	0.00014	0.00010	0.00010	0.00017	0.00020	0.00013	0.00010	0.00010	0.00030
	S.D.	0.00004	0.00012	0.00009	0.00005	0.00009	0	0	0.00006	0.00017	0.00006	0	0	0
	Minimum	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0003
	Maximum	0.0002	0.0004	0.0003	0.0002	0.0003	0.0001	0.0001	0.0002	0.0004	0.0002	0.0001	0.0001	0.0003
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	3	4	4	5	5	4	5	3	3	3	5	5	1

APPENDIX F, TABLE 16

Fish flesh chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Trace Elements														
Antimony	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Arsenic	Mean	0.088	0.102	0.062	0.104	0.292	0.056	0.038	0.030	0.017	0.110	0.046	0.054	0.020
	S.D.	0.026	0.029	0.022	0.022	0.087	0.023	0.019	0	0.006	0.030	0.030	0.019	0
	Minimum	0.06	0.05	0.05	0.08	0.17	0.03	0.02	0.03	0.01	0.08	0.01	0.04	0.02
	Maximum	0.12	0.12	0.1	0.12	0.38	0.08	0.07	0.03	0.02	0.14	0.09	0.08	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Beryllium	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Cobalt	Mean	0.002	0.004	0.002	0.002	0.003	0.003	0.002	0.003	0.002	0.003	0.003	0.003	0.002
	S.D.	0.000	0.003	0	0.001	0.002	0.001	0	0.001	0	0.001	0.002	0.001	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.003	0.009	0.002	0.003	0.007	0.004	0.002	0.003	0.002	0.003	0.006	0.004	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	2	0	2	2	2	3	1	2	1	1	2	1
Strontium	Mean	0.20	0.39	0.24	0.22	0.46	0.80	0.16	0.52	0.17	1.20	0.60	1.01	0.27
	S.D.	0.15	0.23	0.20	0.06	0.38	0.37	0.04	0.42	0.12	0.99	0.47	0.73	0
	Minimum	0.07	0.18	0.09	0.15	0.15	0.39	0.1	0.21	0.09	0.39	0.23	0.42	0.27
	Maximum	0.46	0.75	0.57	0.3	1	1.4	0.19	1	0.31	2.3	1.4	2.2	0.27
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Vanadium	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

[2]0 signifies no variation, not a very small value.

All values < MDL were set equal to MDL for calculation of descriptive statistics; S.D. = standard deviation.

APPENDIX F, TABLE 17

Detailed fish bone chemistry data collected from the Cochrane River for the EARMP technical program, fall 2011.

Analyte[1]	Cochrane River																
	Longnose Sucker		Lake Trout					Lake Whitefish					Northern Pike				
	SP06-01-LSU02	SP06-01-LSU03	AN01-01-LT01	AN01-01-LT02	AN01-01-LT03	AN01-01-LT04	AN01-01-LT05	SP06-01-LW01	SP06-01-LW02	SP06-01-LW03	SP08-01-LW01	SP08-01-LW02	AN01-01-NP06	AN01-01-NP07	AN02-01-NP01	AN02-01-NP02	AN02-01-NP03
Metals																	
Aluminum	7	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.8	3.9	0.9	1.8	1.6	<0.5	<0.5	<0.5	<0.5	<0.5
Barium	5.8	4.6	0.85	0.67	0.86	1.2	0.82	9	10	3.3	4.6	3.2	3.6	2.9	2.8	3.2	3.8
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Copper	0.2	0.19	0.02	0.05	0.07	<0.02	<0.02	0.03	0.04	0.07	0.03	<0.02	0.2	0.14	0.16	0.21	0.16
Iron	18	5.1	6.4	3.8	3.1	3.7	5.4	5.1	6.3	7.6	6.4	4.8	2.5	2.7	4	23	3.9
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.04	0.05	0.02	0.03	0.05	<0.01	<0.01	<0.01	<0.01	<0.01
Manganese	20	12	1.2	1.5	1.7	1.6	1.8	10	11	5.4	12	5.1	24	24	21	16	23
Mercury	<0.01	0.01	0.07	0.03	0.06	0.13	0.14	0.06	0.04	0.01	0.03	0.02	0.07	0.04	0.02	0.03	0.04
Molybdenum	0.32	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.11	0.11	0.13	0.11	0.12	0.12	0.13	0.12	0.12	0.1	0.12	0.13	0.09	0.09	0.1	0.07	0.09
Selenium	0.33	0.31	0.16	0.2	0.17	0.21	0.19	0.46	0.42	0.26	0.22	0.21	0.19	0.17	0.17	0.2	0.18
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.34	0.29	0.28	0.32	0.25	0.26	0.37	0.33	0.27	0.29	0.26	0.3	0.17	0.21	0.22	0.38	0.31
Uranium	0.13	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.07	0.12	0.04	0.17	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	25	24	16	20	18	21	21	26	23	43	34	38	61	63	69	55	90
Physical Properties																	
Moisture (%)	58.58	45.99	48.61	51.09	51.59	54.75	49.17	62.99	60.38	53.33	54.68	57.18	59.37	55.27	58.09	61.04	56.54
Radionuclides																	
Lead-210 (Bq/g)	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002
Polonium-210 (Bq/g)	0.004	0.002	0.0005	<0.0005	<0.0005	0.0006	0.0005	0.002	0.002	0.007	0.002	0.004	0.002	0.001	0.003	0.002	0.001
Radium-226 (Bq/g)	<0.001	<0.002	<0.005	<0.0008	<0.0009	<0.001	0.002	0.001	0.003	<0.001	<0.001	0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Thorium-230 (Bq/g)	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements																	
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.1	0.11	0.09	0.11	0.15	0.04	0.06	0.13	0.13	0.09	0.04	0.04	0.03	0.04	0.04	0.03	0.04
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.03	0.02	0.01	0.01	0.01	0.02	0.02
Strontium	88	81	40	39	39	46	42	113	112	95	89	114	47	38	43	42	52
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	0.26	0.07	0.09	0.11	<0.05	<0.05	<0.05	<0.05	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 18

Detailed fish bone chemistry data collected from the Fond du Lac River for the EARMP technical program, fall 2011.

Analyte[1]	Fond du Lac River																				
	Longnose Sucker					Lake Trout		Lake Whitefish					Northern Pike					White Sucker				
	SP05-01-LSU06	SP05-01-LSU07	SP05-01-LSU11	SP06-02-LSU01	SP06-02-LSU02	SP05-01-LT08	SP07-02-LT15	SP04-01-LW01	SP04-01-LW02	SP04-01-LW03	SP04-01-LW04	SP04-01-LW05	SP04-01-NP06	SP04-01-NP072	SP04-01-NP08	SP04-01-NP09	SP04-01-NP10	SP05-01-WSU01	SP05-01-WSU02	SP05-01-WSU03	SP05-01-WSU04	SP05-01-WSU05
Metals																						
Aluminum	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	1.9	1.9	4.1	4.5	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.8
Barium	2.5	7.3	7.7	3.9	3.5	0.91	0.85	13	18	14	11	5.9	3.4	3.2	2.8	3.5	3.5	4.2	4.1	5.2	4.3	8.3
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Copper	0.24	0.19	0.2	0.24	0.21	0.1	0.15	0.1	0.09	0.1	0.07	0.1	0.17	0.15	0.13	0.14	0.15	0.26	0.4	0.28	0.19	0.27
Iron	3.5	6.6	5.9	4	3.4	2.5	6.1	5.4	4	4.6	7	7.3	6.4	3.2	3.8	4.4	3.5	5.5	3.8	5.4	2.4	6.6
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.01	0.02	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Manganese	8.3	22	29	20	11	2.4	2.3	12	23	19	27	15	31	21	17	24	23	17	18	23	19	34
Mercury	0.02	0.01	0.01	0.04	0.03	0.23	0.23	0.02	0.01	0.02	0.04	0.01	0.01	0.03	0.04	0.02	0.02	0.02	0.03	0.02	0.01	0.05
Molybdenum	0.23	0.31	0.33	0.16	0.23	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.07	0.1	0.16	0.21	0.09
Nickel	0.08	0.2	0.15	0.1	0.08	0.08	0.09	0.09	0.08	0.09	0.13	0.1	0.09	0.09	0.09	0.08	0.08	0.08	0.08	0.13	0.09	0.12
Selenium	0.32	0.36	0.32	0.34	0.28	0.15	0.21	0.42	0.32	0.37	0.55	0.26	0.2	0.24	0.17	0.18	0.22	0.27	0.31	0.31	0.17	0.2
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.17	0.55	0.34	0.33	0.15	0.25	0.25	0.25	0.24	0.34	0.29	0.36	0.35	0.27	0.24	0.28	0.24	0.31	0.21	0.24	0.21	0.34
Uranium	0.02	0.05	0.05	0.03	0.03	<0.01	<0.01	0.06	0.18	0.33	0.13	0.06	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.02	0.08	0.06
Zinc	17	37	33	18	17	26	24	33	28	28	35	39	67	62	62	55	66	20	17	22	17	26
Physical Properties																						
Moisture (%)	46.72	50.96	52.31	49.82	42.51	51.42	58.73	62.48	57.88	48.48	50.11	56.08	56.86	55.9	54.19	60.44	62.72	42.97	51.47	45.17	49.69	42.2
Radionuclides																						
Lead-210 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Polonium-210 (Bq/g)	0.002	0.005	0.003	0.003	0.001	0.001	0.0006	0.002	0.002	0.002	0.002	0.004	0.001	0.001	0.002	0.002	0.003	0.002	0.003	0.005	0.007	0.001
Radium-226 (Bq/g)	<0.001	<0.001	<0.001	<0.001	<0.002	<0.001	<0.001	0.002	0.002	<0.001	<0.001	<0.001	0.002	<0.001	0.001	0.001	<0.001	<0.002	<0.001	<0.001	<0.001	<0.002
Thorium-230 (Bq/g)	<0.002	<0.003	<0.002	<0.003	<0.003	<0.002	<0.002	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	<0.003	<0.002	<0.003
Trace Elements																						
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.18	0.09	0.1	0.09	0.11	0.11	0.05	0.16	0.19	0.17	0.23	0.09	0.02	0.07	0.05	0.02	0.03	0.05	0.05	0.12	0.07	0.04
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.01	0.03	0.03	0.02	0.01	0.01	0.01	0.01	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.03	0.02	0.03
Strontium	45	127	119	61	48	58	58	98	122	133	156	121	51	46	44	48	48	65	54	77	68	86
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.18	0.21	0.41	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 19

Detailed fish bone chemistry data collected from Cree Lake for the EARMP technical program, fall 2011.

Analyte[1]	Cree Lake																			
	Longnose Sucker					Lake Trout					Lake Whitefish					White Sucker				
	SP09-01-LSU07	SP09-01-LSU08+ LSU09	SP09-01-LSU10+ LSU11	SP09-01-LSU12+ LSU13	SP09-01-LSU14+ LSU15	AN01-01-LT01	AN01-01-LT02	AN01-01-LT03	AN01-01-LT04	SP01-01-LT01	SP01-01, SP03-01-LW02/LW02	SP06-01-LW02	SP07-01, SP09-01-LW02/LW01	SP09-01-LW19	SP09-01-LW20+ LW21	SP09-01-WSU02	SP09-01-WSU03	SP09-01-WSU04	SP09-01-WSU05	SP09-01-WSU06
Metals																				
Aluminum	1.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	<0.5	0.9	<0.5	1.6	0.6	<0.5	<0.5	<0.5	<0.5
Barium	9.1	10	6.2	5.6	7.1	1.3	1.6	2.1	2.3	1.8	7.7	3.2	4	5.4	6.2	16	11	7.7	7.9	8.5
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Copper	0.21	0.26	0.34	0.26	1	0.14	0.1	0.24	0.04	0.31	0.06	0.05	0.04	0.05	0.05	0.28	0.39	0.28	0.38	0.25
Iron	5.9	15	12	11	11	6.3	7.3	5.1	4.5	5.1	4.7	8.2	7.5	6.5	14	26	19	11	13	19
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	0.02	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01
Manganese	159	104	38	94	138	2.4	3.7	4.6	4.8	3.7	18	4.5	30	11	39	153	74	80	54	90
Mercury	0.02	<0.01	<0.01	0.01	<0.01	0.04	0.05	0.02	0.02	0.01	<0.01	0.01	0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Molybdenum	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.13	0.13	0.1	0.06	0.09	0.11	0.13	0.1	0.13	0.12	0.09	0.1	0.09	0.15	0.13	0.19	0.11	0.1	0.12	0.11
Selenium	0.24	0.25	0.21	0.27	0.28	0.27	0.17	0.22	0.19	0.22	0.2	0.28	0.39	0.23	0.42	0.2	0.16	0.19	0.15	0.15
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.33	0.45	0.27	0.22	0.26	0.32	0.29	0.25	0.32	0.3	0.25	0.22	0.25	0.25	0.33	0.5	0.33	0.29	0.29	0.4
Uranium	<0.01	0.02	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	27	43	27	24	27	19	27	27	31	25	60	39	27	52	48	38	30	23	26	32
Physical Properties																				
Moisture (%)	46.16	52.93	49.09	55.45	55.7	59.63	56.78	54.22	51.36	56.15	62.02	48.68	62.76	51.9	60.06	46.43	45.36	45.93	52.3	44.43
Radionuclides																				
Lead-210 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.004	<0.002
Polonium-210 (Bq/g)	0.003	0.002	0.013	0.005	0.004	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.002	0.001	0.007	<0.0005	0.005	0.003	0.003	0.004	0.003	0.002
Radium-226 (Bq/g)	<0.001	<0.001	0.010	0.001	<0.001	0.001	0.001	<0.0009	<0.0009	<0.0009	0.001	<0.001	<0.0008	<0.001	0.001	<0.001	0.004	<0.001	<0.001	<0.001
Thorium-230 (Bq/g)	<0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.003	<0.003	<0.002	<0.002
Trace Elements																				
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.06	0.05	0.06	0.03	0.03	0.11	0.03	0.05	0.03	0.06	0.05	0.1	0.02	0.11	0.03	0.04	0.07	0.04	0.05	0.04
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.03	0.03	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02
Strontium	178	275	182	130	174	102	130	136	166	121	234	225	164	314	215	388	207	179	194	208
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.1	<0.05	0.13	<0.05	<0.05	<0.05	<0.05	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 20

Detailed fish bone chemistry data collected from the Crackingstone Inlet for the EARMP technical program, fall 2011.

Analyte[1]	Crackingstone Inlet														
	Lake Trout					Lake Whitefish					Northern Pike				
	SP01-01-LT01	SP01-01-LT02	SP01-01-LT03	SP01-01-LT04	SP01-01-LT05	SP01-01-LW06	SP01-01-LW07	SP01-01-LW08	SP01-01-LW09	SP01-01-LW10	SP01-01-NP01	SP01-01-NP02	SP01-01-NP03	SP01-01-NP04	SP01-01-NP05
Metals															
Aluminum	<0.5	<0.5	<0.5	<0.5	1.5	2.7	1.4	1	1.9	2.6	<0.5	<0.5	<0.5	0.6	<0.5
Barium	1.1	0.76	1.1	0.83	1.1	14	9.3	3.4	12	18	7.3	6	4.8	6.7	5.6
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	0.2	<0.2	0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Copper	0.18	0.12	0.11	0.17	0.17	0.12	0.21	0.14	0.13	0.11	0.15	0.12	0.16	0.13	0.14
Iron	3.5	2.2	2.2	6	10	5.7	6.7	5.7	5.4	7.6	4.9	3.9	2.8	3.9	4
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	0.08	<0.01	0.01	0.02	0.04	<0.01	<0.01	<0.01	<0.01	<0.01
Manganese	0.9	0.6	0.89	0.92	0.71	6.6	6.4	4	7.3	13	16	12	9	11	9.5
Mercury	0.03	0.07	0.03	0.03	0.03	<0.01	<0.01	0.04	<0.01	0.02	0.02	<0.01	0.01	0.02	0.02
Molybdenum	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.07	0.08	0.07	0.06	0.08	0.15	0.18	0.17	0.12	0.13	0.09	0.09	0.07	0.12	0.11
Selenium	0.15	0.11	0.09	0.18	0.16	0.15	0.19	0.45	1.8	0.24	0.32	0.33	0.23	0.24	0.28
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	0.02	0.02	0.02	<0.02	0.03	<0.02	<0.02	<0.02	<0.02	0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.17	0.19	0.23	0.15	0.4	0.3	0.31	0.31	0.31	0.37	0.27	0.23	0.21	0.32	0.31
Uranium	<0.01	<0.01	<0.01	0.01	<0.01	0.19	0.16	0.4	1.8	0.29	0.29	0.2	0.05	0.15	0.28
Zinc	21	19	22	19	23	38	49	34	36	37	61	68	70	57	55
Physical Properties															
Moisture (%)	48.21	47.8	51.05	50.55	49.93	48.14	56.47	50.4	55.43	55.27	59.11	58.41	55.48	55.28	55.59
Radionuclides															
Lead-210 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Polonium-210 (Bq/g)	0.0005	<0.0005	<0.0005	<0.0005	<0.0005	0.002	0.001	0.001	0.002	0.0007	0.001	0.0008	<0.0005	<0.0005	0.0008
Radium-226 (Bq/g)	<0.0009	<0.001	<0.0008	<0.0009	<0.001	0.002	<0.001	<0.001	<0.001	<0.001	0.002	<0.001	<0.001	0.005	0.002
Thorium-230 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements															
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.26	0.34	0.29	0.26	0.16	0.27	0.14	0.16	0.18	0.2	0.08	0.17	0.15	0.12	0.14
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.01	0.01	0.01	<0.01	0.01	0.03	0.03	0.02	0.02	0.03	0.02	0.01	0.01	0.02	0.02
Strontium	77	60	85	49	72	264	233	175	211	286	81	85	86	113	98
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	2	0.24	<0.05	<0.05	<0.05	<0.05	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 21

Detailed fish bone chemistry data collected from Ellis Bay for the EARMP technical program, fall 2011.

Analyte[1]	Ellis Bay									
	Lake Trout					Lake Whitefish				
	SP01-01-LT01	SP01-01-LT02	SP01-01-LT03	SP01-01-LT04	SP01-01-LT05	SP01-01-LW06	SP01-01-LW07	SP01-01-LW08	SP01-01-LW09	SP01-01-LW10
Metals										
Aluminum	0.6	0.7	1.6	<0.5	<0.5	3.3	4.2	2.2	2.2	1.6
Barium	1.1	0.7	0.88	1.3	1.1	10	15	9.2	8	9.4
Boron	<0.5	<0.5	0.8	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Copper	0.26	0.18	0.08	0.16	0.1	0.09	0.19	0.24	0.11	0.09
Iron	5.7	2.6	2.3	4.2	2.2	3.6	4.3	5.5	5.9	4.7
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	0.03	0.04	0.07	0.02	<0.01
Manganese	0.9	1.1	2	2.1	1.5	16	29	6.2	20	14
Mercury	0.04	0.05	0.06	0.02	0.04	0.01	0.03	0.02	0.01	<0.01
Molybdenum	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.19	0.08	0.07	0.08	0.07	0.09	0.13	0.07	0.12	0.09
Selenium	0.14	0.13	0.12	0.13	0.13	0.21	0.24	0.21	0.21	0.21
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	0.04	<0.02	0.04	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.34	0.2	0.24	0.18	0.21	0.24	0.44	0.19	0.35	0.27
Uranium	<0.01	<0.01	0.49	<0.01	<0.01	0.51	0.61	0.26	0.84	0.54
Zinc	22	18	16	27	18	25	27	21	38	27
Physical Properties										
Moisture (%)	45.36	50.35	50.25	50.14	49.24	50.47	56.9	49.52	52.63	56.19
Radionuclides										
Lead-210 (Bq/g)	<0.002	<0.002	<0.002	0.003	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Polonium-210 (Bq/g)	<0.0004	<0.0004	<0.0005	<0.0005	<0.0005	0.002	0.004	0.002	0.0007	0.001
Radium-226 (Bq/g)	<0.001	<0.0008	<0.0009	<0.001	<0.0008	<0.001	<0.001	0.002	<0.001	<0.0009
Thorium-230 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements										
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.21	0.23	0.29	0.16	0.21	0.41	0.18	0.37	0.29	0.33
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.02	<0.01	<0.01	0.01	0.01	0.02	0.02	0.02	0.02	0.02
Strontium	70	54	62	77	82	217	287	156	239	191
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.19	<0.05	0.12	0.12

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 22

Detailed fish bone chemistry data collected from Waterbury Lake for the EARMP technical program, fall 2011.

Analyte[1]	Waterbury Lake															
	Longnose Sucker					Lake Trout					Lake Whitefish			Northern Pike		
	SP08-01-LSU11+LSU12	SP08-01-LSU13	SP08-01-LSU14	SP08-01-LSU15+LSU16	SP08-01-LSU17+LSU18	SP08-01-LT03	SP08-01-LT04	SP08-01-LT05	SP08-01-LT06	SP08-01-LT07	SP08-01-LW08	SP08-01-LW09	SP08-01-LW10	SP01-01-NP03	SP08-01-NP01	SP08-01-NP02
Metals																
Aluminum	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	1.4	2	1.4	<0.5	0.8	<0.5
Barium	6.6	5.1	3.7	5.2	4.1	1.4	1.3	1.3	0.92	1.2	6.6	6.4	4.3	4.2	4.1	3.6
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	0.3	<0.2	<0.2	<0.2	<0.2
Copper	0.2	0.16	0.21	0.22	0.17	0.14	0.19	0.17	0.18	0.1	0.13	0.03	0.04	0.17	0.12	0.12
Iron	3.3	3.6	4.5	4.1	2.8	14	5.9	5.5	3.6	2.7	4	6.3	8.7	3.9	2.4	2.7
Lead	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.02	0.02	<0.01	<0.01	<0.01
Manganese	97	53	54	49	50	3.9	3.8	3.7	2.5	2.7	15	28	20	15	24	21
Mercury	<0.01	0.01	<0.01	<0.01	0.01	0.1	0.06	0.1	0.08	0.1	0.02	0.01	<0.01	0.04	0.01	0.01
Molybdenum	0.19	0.15	0.43	0.22	0.25	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.09	0.07	0.07	0.07	0.07	0.11	0.07	0.06	0.07	0.06	0.07	0.1	0.09	0.09	0.12	0.1
Selenium	0.35	0.25	0.19	0.19	0.2	0.23	0.14	0.13	0.14	0.15	0.59	0.55	0.71	0.21	0.16	0.14
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.31	0.21	0.17	0.19	0.2	0.28	0.27	0.22	0.21	0.31	0.21	0.25	0.3	0.22	0.28	0.25
Uranium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	<0.01	<0.01	0.01	0.02	0.01	<0.01	<0.01	<0.01
Zinc	26	21	21	25	23	28	26	23	25	21	24	25	27	45	51	51
Physical Properties																
Moisture (%)	58.61	58.75	54.41	57.01	61.18	54.95	54.23	53.14	53.1	51.81	62.34	58.06	63.68	53.55	53.17	55.13
Radionuclides																
Lead-210 (Bq/g)	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.004	<0.002	<0.002	<0.002	<0.002
Polonium-210 (Bq/g)	0.001	0.002	0.002	0.002	0.0009	0.0006	<0.0005	<0.0005	<0.0005	0.0008	0.003	0.007	0.005	0.002	0.001	0.0012
Radium-226 (Bq/g)	<0.001	0.004	<0.001	<0.001	<0.001	0.001	<0.0008	<0.001	0.002	0.001	<0.001	0.002	<0.0009	<0.001	<0.001	<0.001
Thorium-230 (Bq/g)	<0.002	<0.002	0.002	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.003	<0.002	0.003
Trace Elements																
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.04	0.03	0.03	0.06	0.05	0.05	0.1	0.09	0.1	0.1	0.02	0.02	0.03	<0.02	0.04	0.03
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.02	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.01
Strontium	201	143	133	148	128	132	129	109	95	111	191	179	166	102	106	116
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.14	0.25	0.18	<0.05	<0.05	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 23

Detailed fish bone chemistry data collected from Pasfield Lake for the EARMP technical program, fall 2011.

Analyte[1]	Pasfield Lake													
	Longnose Sucker			Lake Trout					Lake Whitefish					Northern Pike
	SP07-01-LSU11	SP07-01-LSU12	SP07-01-LSU13	AN03-01-LT01	AN03-01-LT02	SP03-01-LT01	SP05-01-LT01	SP05-01-LT02	SP07-01-LW01/LW02	SP07-01-LW03/LW04	SP07-01-LW05/LW06	SP07-01-LW07/LW08	SP07-01-LW09/LW10	SP02-01-NP02
Metals														
Aluminum	<0.5	<0.5	<0.5	<0.5	0.5	<0.5	<0.5	<0.5	0.6	0.8	0.9	0.8	0.8	<0.5
Barium	5.3	4.1	7.5	1.2	1.7	1.3	1.5	1.6	3.9	4.9	3.6	4	4.3	3.8
Boron	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Cadmium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Chromium	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	3.4	<0.2	<0.2
Copper	0.4	0.24	0.15	0.1	0.11	0.04	0.1	0.08	0.1	0.07	0.16	0.08	0.04	0.12
Iron	6.1	3.4	4.2	5.9	5.8	5.8	4.2	5.8	3.6	5.3	6	58	15	3.4
Lead	<0.01	<0.01	0.03	<0.01	<0.01	<0.01	<0.01	<0.01	0.02	0.03	0.04	0.04	0.04	<0.01
Manganese	30	10	25	2.5	3.7	1.5	1.5	3.4	5.5	7.4	9.9	7.3	8.2	7.4
Mercury	0.01	<0.01	<0.01	0.06	0.05	0.1	0.02	0.08	<0.01	<0.01	<0.01	<0.01	<0.01	0.02
Molybdenum	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Nickel	0.07	0.08	0.14	0.1	0.11	0.11	0.1	0.12	0.09	0.09	0.08	0.31	0.15	0.09
Selenium	0.28	0.21	0.18	0.28	0.32	0.25	0.28	0.29	0.19	0.33	0.23	0.21	0.23	0.13
Silver	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Thallium	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Tin	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Titanium	0.14	0.21	0.29	0.29	0.34	0.3	0.28	0.28	0.31	0.24	0.27	0.28	0.27	0.22
Uranium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Zinc	26	23	25	20	28	21	26	27	37	29	36	38	42	61
Physical Properties														
Moisture (%)	54.2	51.36	46.14	56.07	56.74	57.01	54.67	58.53	61.6	62.97	56.95	60.79	63.06	54.77
Radionuclides														
Lead-210 (Bq/g)	<0.002	<0.002	0.003	0.003	0.003	<0.002	<0.002	0.004	0.005	0.012	0.003	0.003	0.003	<0.002
Polonium-210 (Bq/g)	0.009	0.006	0.009	<0.0005	<0.0005	0.0006	0.001	0.001	0.008	0.019	0.011	0.011	0.01	<0.0005
Radium-226 (Bq/g)	0.006	<0.001	<0.001	0.001	<0.001	<0.0009	<0.0008	<0.001	<0.0009	0.002	0.003	<0.0009	<0.0006	<0.001
Thorium-230 (Bq/g)	<0.002	<0.003	<0.002	<0.002	<0.002	<0.002	<0.001	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Trace Elements														
Antimony	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Arsenic	0.05	0.1	0.05	0.06	0.07	0.07	0.06	0.03	0.05	0.05	0.04	0.06	0.04	0.03
Beryllium	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Cobalt	0.01	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.03	0.02	0.02
Strontium	197	169	233	163	151	152	170	189	296	266	260	252	301	164
Vanadium	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0.08	0.12	0.11	0.15	0.12	<0.05

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Metals														
Aluminum	Mean	3.8	0.5	2.2	0.5	0.5	0.5	2.8	0.5	0.6	0.7	0.5	0.8	0.5
	S.D.	4.6	0[2]	1.2	0	0.0	0	1.4	0	0.1	0.5	0	0.5	0.0
	Minimum	0.5	0.5	0.9	0.5	0.5	0.5	1.6	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	7	0.5	3.9	0.5	0.6	0.5	4.5	0.5	0.8	1.6	0.5	1.6	0.6
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	1	5	0	5	4	2	0	5	3	4	5	2	4
Barium	Mean	5.2	0.9	6.0	3.3	5.0	0.9	12.4	3.3	5.2	7.6	1.8	5.3	10.2
	S.D.	0.8	0.2	3.2	0.4	2.4	0.0	4.4	0.3	1.8	1.9	0.4	1.8	3.5
	Minimum	4.6	0.67	3.2	2.8	2.5	0.85	5.9	2.8	4.1	5.6	1.3	3.2	7.7
	Maximum	5.8	1.2	10	3.8	7.7	0.91	18	3.5	8.3	10	2.3	7.7	16
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Boron	Mean	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Cadmium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Chromium	Mean	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Copper	Mean	0.20	0.04	0.04	0.17	0.22	0.13	0.09	0.15	0.28	0.41	0.17	0.05	0.32
	S.D.	0.01	0.02	0.02	0.03	0.02	0.04	0.01	0.01	0.08	0.33	0.11	0.01	0.06
	Minimum	0.19	0.02	0.02	0.14	0.19	0.1	0.07	0.13	0.19	0.21	0.04	0.04	0.25
	Maximum	0.2	0.07	0.07	0.21	0.24	0.15	0.1	0.17	0.4	1	0.31	0.06	0.39
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	2	1	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Iron	Mean	11.6	4.5	6.0	7.2	4.7	4.3	5.7	4.3	4.7	11.0	5.7	8.2	17.6
	S.D.	9.1	1.4	1.1	8.8	1.5	2.5	1.5	1.3	1.6	3.3	1.1	3.5	5.9
	Minimum	5.1	3.1	4.8	2.5	3.4	2.5	4	3.2	2.4	5.9	4.5	4.7	11
	Maximum	18	6.4	7.6	23	6.6	6.1	7.3	6.4	6.6	15	7.3	14	26
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	Mean	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01
	S.D.	0	0	0.01	0	0	0	0.004	0.01	0	0	0	0.01	0
	Minimum	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.05	0.01	0.01	0.01	0.02	0.03	0.01	0.01	0.01	0.03	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	0	5	5	2	2	4	5	5	5	2	5
Manganese	Mean	16.0	1.6	8.7	21.6	18.1	2.4	19.2	23.2	22.2	106.6	3.8	20.5	90.2
	S.D.	5.7	0.2	3.2	3.4	8.4	0.1	6.0	5.1	7.0	46.4	1.0	14.0	37.5
	Minimum	12	1.2	5.1	16	8.3	2.3	12	17	17	38	2.4	4.5	54
	Maximum	20	1.8	12	24	29	2.4	27	31	34	159	4.8	39	153
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	Mean	0.01	0.09	0.03	0.04	0.02	0.23	0.02	0.02	0.03	0.01	0.03	0.01	0.01
	S.D.	0	0.05	0.02	0.02	0.01	0	0.01	0.01	0.02	0.00	0.02	0.00	0
	Minimum	0.01	0.03	0.01	0.02	0.01	0.23	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.14	0.06	0.07	0.04	0.23	0.04	0.04	0.05	0.02	0.05	0.02	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	1	0	0	0	0	0	0	0	0	3	0	2	5
Molybdenum	Mean	0.28	0.05	0.05	0.05	0.25	0.05	0.05	0.05	0.13	0.05	0.05	0.05	0.05
	S.D.	0.06	0	0	0	0.07	0	0	0	0.06	0	0	0	0
	Minimum	0.23	0.05	0.05	0.05	0.16	0.05	0.05	0.05	0.07	0.05	0.05	0.05	0.05
	Maximum	0.32	0.05	0.05	0.05	0.33	0.05	0.05	0.05	0.21	0.05	0.05	0.05	0.05
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	5	5	5	0	2	5	5	0	5	5	5	5

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Nickel	Mean	0.11	0.12	0.12	0.09	0.12	0.09	0.10	0.09	0.10	0.10	0.12	0.11	0.13
	S.D.	0	0.01	0.01	0.01	0.05	0.01	0.02	0.01	0.02	0.03	0.01	0.03	0.04
	Minimum	0.11	0.11	0.1	0.07	0.08	0.08	0.08	0.08	0.08	0.06	0.1	0.09	0.1
	Maximum	0.11	0.13	0.13	0.1	0.2	0.09	0.13	0.09	0.13	0.13	0.13	0.15	0.19
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenium	Mean	0.32	0.19	0.31	0.18	0.32	0.18	0.38	0.20	0.25	0.25	0.21	0.30	0.17
	S.D.	0.01	0.02	0.12	0.01	0.03	0.04	0.11	0.03	0.06	0.03	0.04	0.10	0.02
	Minimum	0.31	0.16	0.21	0.17	0.28	0.15	0.26	0.17	0.17	0.21	0.17	0.2	0.15
	Maximum	0.33	0.21	0.46	0.2	0.36	0.21	0.55	0.24	0.31	0.28	0.27	0.42	0.2
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Thallium	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Tin	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Titanium	Mean	0.32	0.30	0.29	0.26	0.31	0.25	0.30	0.28	0.26	0.31	0.30	0.26	0.36
	S.D.	0.04	0.05	0.03	0.09	0.16	0	0.05	0.05	0.06	0.09	0.03	0.04	0.09
	Minimum	0.29	0.25	0.26	0.17	0.15	0.25	0.24	0.24	0.21	0.22	0.25	0.22	0.29
	Maximum	0.34	0.37	0.33	0.38	0.55	0.25	0.36	0.35	0.34	0.45	0.32	0.33	0.5
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Uranium	Mean	0.08	0.01	0.09	0.01	0.04	0.01	0.15	0.01	0.04	0.01	0.01	0.01	0.01
	S.D.	0.07	0	0.06	0	0.01	0	0.11	0	0.03	0.004	0	0	0
	Minimum	0.03	0.01	0.04	0.01	0.02	0.01	0.06	0.01	0.02	0.01	0.01	0.01	0.01
	Maximum	0.13	0.01	0.17	0.01	0.05	0.01	0.33	0.01	0.08	0.02	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	5	0	5	0	2	0	5	0	4	5	5	5
Zinc	Mean	24.5	19.2	32.8	67.6	24.4	25.0	32.6	62.4	20.4	29.6	25.8	45.2	29.8
	S.D.	0.7	2.2	8.3	13.5	9.8	1.4	4.7	4.7	3.8	7.6	4.4	12.7	5.8
	Minimum	24	16	23	55	17	24	28	55	17	24	19	27	23
	Maximum	25	21	43	90	37	26	39	67	26	43	31	60	38
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical Properties														
Moisture	Mean	52.3	51.0	57.7	58.1	48.5	55.1	55.0	58.0	46.3	51.9	55.6	57.1	46.9
	S.D.	8.9	2.4	4.0	2.3	3.9	5.2	5.7	3.5	4.1	4.2	3.1	6.4	3.1
	Minimum	46	49	53	55	43	51	48	54	42	46	51	49	44
	Maximum	59	55	63	61	52	59	62	63	51	56	60	63	52
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Radionuclides														
Lead-210	Mean	0.0025	0.0020	0.0020	0.0022	0.0020	0.0020	0.0024	0.0020	0.0020	0.0020	0.0020	0.0022	0.0024
	S.D.	0.0007	0	0	0.0004	0	0	0.0009	0	0	0	0	0.0004	0.0009
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.003	0.002	0.002	0.003	0.002	0.002	0.004	0.002	0.002	0.002	0.002	0.003	0.004
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	3	5	5	5	5	4	5
Polonium-210	Mean	0.0030	0.0005	0.0034	0.0018	0.0028	0.0008	0.0024	0.0018	0.0036	0.0054	0.0005	0.0031	0.0030
	S.D.	0.0014	0.00004	0.0022	0.0008	0.0015	0.0003	0.0009	0.0008	0.0024	0.0044	0	0.0028	0.0007
	Minimum	0.002	0.0005	0.002	0.001	0.001	0.0006	0.002	0.001	0.001	0.002	0.0005	0.0005	0.002
	Maximum	0.004	0.0006	0.007	0.003	0.005	0.001	0.004	0.003	0.007	0.013	0.0005	0.007	0.004
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	2	0	0	0	0	0	0	0	0	5	1	0
Radium-226	Mean	0.0015	0.0019	0.0014	0.0010	0.0012	0.0010	0.0014	0.0012	0.0014	0.0028	0.0009	0.0010	0.0016
	S.D.	0.0007	0.0018	0.0009	0	0.0004	0	0.0005	0.0004	0.0005	0.0040	0.00005	0.00009	0.0013
	Minimum	0.001	0.0008	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.0009	0.0008	0.001
	Maximum	0.002	0.005	0.003	0.001	0.002	0.001	0.002	0.002	0.002	0.01	0.001	0.001	0.004
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	4	2	5	5	2	3	2	5	3	3	3	4

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Cochrane River				Fond du Lac River					Cree Lake			
		LSU	LT	LW	NP	LSU	LT	LW	NP	WSU	LSU	LT	LW	WSU
Thorium-230	Mean	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.003
	S.D.	0.0007	0	0.0004	0	0.0005	0	0.0004	0	0.0005	0.0004	0	0	0.0005
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
	Maximum	0.003	0.002	0.003	0.002	0.003	0.002	0.003	0.002	0.003	0.003	0.002	0.002	0.003
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	4	5	5	2	5	5	5	5	5	5	5
Trace Elements														
Antimony	Mean	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Arsenic	Mean	0.11	0.09	0.09	0.04	0.11	0.08	0.17	0.04	0.07	0.05	0.06	0.06	0.05
	S.D.	0.007	0.043	0.045	0.005	0.038	0.042	0.051	0.022	0.032	0.015	0.033	0.041	0.013
	Minimum	0.1	0.04	0.04	0.03	0.09	0.05	0.09	0.02	0.04	0.03	0.03	0.02	0.04
	Maximum	0.11	0.15	0.13	0.04	0.18	0.11	0.23	0.07	0.12	0.06	0.11	0.11	0.07
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Beryllium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	5	5	5	2	5	5	5	5	5	5	5
Cobalt	Mean	0.02	0.02	0.02	0.01	0.02	0.01	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0.004	0.005	0.010	0	0.007	0.004	0.005	0.008	0.004	0.004	0.004
	Minimum	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02
	Maximum	0.02	0.02	0.03	0.02	0.03	0.01	0.03	0.02	0.03	0.03	0.02	0.02	0.03
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Strontium	Mean	84.5	41.2	104.6	44.4	80.0	58.0	126.0	47.4	70.0	187.8	131.0	230.4	235.2
	S.D.	4.9	2.9	11.7	5.3	39.8	0	21.1	2.6	12.1	53.1	23.4	54.0	86.2
	Minimum	81	39	89	38	45	58	98	44	54	130	102	164	179
	Maximum	88	46	114	52	127	58	156	51	86	275	166	314	388
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Vanadium	Mean	0.05	0.05	0.14	0.05	0.05	0.05	0.18	0.05	0.05	0.05	0.05	0.08	0.05
	S.D.	0	0	0.08	0	0	0	0.15	0	0	0	0	0.04	0
	Minimum	0.05	0.05	0.07	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.26	0.05	0.05	0.05	0.41	0.05	0.05	0.05	0.05	0.13	0.05
	N	2	5	5	5	5	2	5	5	5	5	5	5	5
	<MDL	2	5	0	5	5	2	2	5	5	5	5	3	5
Metals														
Aluminum	Mean	0.7	1.9	0.5	0.8	2.7	0.5	0.5	1.6	0.6	0.5	0.5	0.8	0.5
	S.D.	0.4	0.7	0.0	0.5	1.0	0	0	0.3	0.2	0	0	0.1	0
	Minimum	0.5	1	0.5	0.5	1.6	0.5	0.5	1.4	0.5	0.5	0.5	0.6	0.5
	Maximum	1.5	2.7	0.6	1.6	4.2	0.5	0.5	2	0.8	0.5	0.5	0.9	0.5
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	0	4	2	0	5	4	0	2	3	4	0	1
Barium	Mean	1.0	11.3	6.1	1.0	10.3	4.9	1.2	5.8	4.0	5.6	1.5	4.1	3.8
	S.D.	0.2	5.5	1.0	0.2	2.7	1.1	0.2	1.3	0.3	1.7	0.2	0.5	0
	Minimum	0.76	3.4	4.8	0.7	8	3.7	0.92	4.3	3.6	4.1	1.2	3.6	3.8
	Maximum	1.1	18	7.3	1.3	15	6.6	1.4	6.6	4.2	7.5	1.7	4.9	3.8
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Boron	Mean	0.5	0.5	0.5	0.56	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	S.D.	0	0	0	0.13	0	0	0	0	0	0	0	0	0
	Minimum	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	Maximum	0.5	0.5	0.5	0.8	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	4	5	5	5	3	3	3	5	5	1
Cadmium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Chromium	Mean	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.8	0.2
	S.D.	0	0	0	0	0	0	0	0.1	0	0	0	1.4	0
	Minimum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
	Maximum	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.2	0.2	0.2	3.4	0.2
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	3	5	5	5	5	5	2	3	3	5	4	1

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Copper	Mean	0.15	0.14	0.14	0.16	0.14	0.19	0.16	0.07	0.14	0.26	0.09	0.09	0.12
	S.D.	0.03	0.04	0.02	0.07	0.07	0.03	0.04	0.06	0.03	0.13	0.03	0.04	0
	Minimum	0.11	0.11	0.12	0.08	0.09	0.16	0.1	0.03	0.12	0.15	0.04	0.04	0.12
	Maximum	0.18	0.21	0.16	0.26	0.24	0.22	0.19	0.13	0.17	0.4	0.11	0.16	0.12
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Iron	Mean	4.8	6.2	3.9	3.4	4.8	3.7	6.3	6.3	3.0	4.6	5.5	17.6	3.4
	S.D.	3.3	0.9	0.7	1.5	0.9	0.7	4.5	2.4	0.8	1.4	0.7	23.0	0
	Minimum	2.2	5.4	2.8	2.2	3.6	2.8	2.7	4	2.4	3.4	4.2	3.6	3.4
	Maximum	10	7.6	4.9	5.7	5.9	4.5	14	8.7	3.9	6.1	5.9	58	3.4
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Lead	Mean	0.01	0.03	0.01	0.01	0.03	0.01	0.01	0.02	0.01	0.02	0.01	0.03	0.01
	S.D.	0	0.03	0	0	0.02	0	0	0	0	0.01	0	0.01	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02	0.01
	Maximum	0.01	0.08	0.01	0.01	0.07	0.01	0.01	0.02	0.01	0.03	0.01	0.04	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	1	5	5	1	5	5	0	3	2	5	0	1
Manganese	Mean	0.8	7.5	11.5	1.5	17.0	60.6	3.3	21.0	20.0	21.7	2.5	7.7	7.4
	S.D.	0.1	3.3	2.8	0.5	8.4	20.5	0.7	6.6	4.6	10.4	1.0	1.6	0
	Minimum	0.6	4	9	0.9	6.2	49	2.5	15	15	10	1.5	5.5	7.4
	Maximum	0.92	13	16	2.1	29	97	3.9	28	24	30	3.7	9.9	7.4
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Mercury	Mean	0.04	0.02	0.02	0.04	0.02	0.01	0.09	0.01	0.02	0.01	0.06	0.01	0.02
	S.D.	0.02	0.01	0.01	0.01	0.01	0	0.02	0.01	0.02	0	0.03	0	0
	Minimum	0.03	0.01	0.01	0.02	0.01	0.01	0.06	0.01	0.01	0.01	0.02	0.01	0.02
	Maximum	0.07	0.04	0.02	0.06	0.03	0.01	0.1	0.02	0.04	0.01	0.1	0.01	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	3	1	0	1	3	0	1	0	2	0	5	0
Molybdenum	Mean	0.05	0.05	0.05	0.05	0.05	0.25	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0.11	0	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.15	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.43	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	0	5	3	3	3	5	5	1

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Nickel	Mean	0.07	0.15	0.10	0.10	0.10	0.07	0.07	0.09	0.10	0.10	0.11	0.14	0.09
	S.D.	0.01	0.03	0.02	0.05	0.02	0.01	0.02	0.02	0.02	0.04	0.01	0.10	0
	Minimum	0.06	0.12	0.07	0.07	0.07	0.07	0.06	0.07	0.09	0.07	0.1	0.08	0.09
	Maximum	0.08	0.18	0.12	0.19	0.13	0.09	0.11	0.1	0.12	0.14	0.12	0.31	0.09
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Selenium	Mean	0.14	0.57	0.28	0.13	0.22	0.24	0.16	0.62	0.17	0.22	0.28	0.24	0.13
	S.D.	0.04	0.70	0.05	0.01	0.01	0.07	0.04	0.08	0.04	0.05	0.03	0.05	0
	Minimum	0.09	0.15	0.23	0.12	0.21	0.19	0.13	0.55	0.14	0.18	0.25	0.19	0.13
	Maximum	0.18	1.8	0.33	0.14	0.24	0.35	0.23	0.71	0.21	0.28	0.32	0.33	0.13
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Silver	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Thallium	Mean	0.02	0.02	0.02	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0.004	0	0	0.01	0	0	0	0	0	0	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.03	0.02	0.02	0.04	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	1	4	5	3	5	5	5	3	3	3	5	5	1
Tin	Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	S.D.	0	0	0	0	0	0	0	3.29E-10	3.29E-10	3.29E-10	0	0	0
	Minimum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	Maximum	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Titanium	Mean	0.23	0.32	0.27	0.23	0.30	0.22	0.26	0.25	0.25	0.21	0.30	0.27	0.22
	S.D.	0.10	0.03	0.05	0.06	0.10	0.05	0.04	0.05	0.03	0.08	0.02	0.03	0
	Minimum	0.15	0.3	0.21	0.18	0.19	0.17	0.21	0.21	0.22	0.14	0.28	0.24	0.22
	Maximum	0.4	0.37	0.32	0.34	0.44	0.31	0.31	0.3	0.28	0.29	0.34	0.31	0.22
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Uranium	Mean	0.01	0.57	0.19	0.11	0.55	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0.70	0.10	0.21	0.21	0	0.004	0.01	0	0	0	0	0
	Minimum	0.01	0.16	0.05	0.01	0.26	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	1.8	0.29	0.49	0.84	0.01	0.02	0.02	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	0	0	4	0	5	4	0	3	3	5	5	1
Zinc	Mean	20.8	38.8	62.2	20.2	27.6	23.2	24.6	25.3	49.0	24.7	24.4	36.4	61.0
	S.D.	1.8	5.9	6.6	4.4	6.3	2.3	2.7	1.5	3.5	1.5	3.6	4.7	0
	Minimum	19	34	55	16	21	21	21	24	45	23	20	29	61
	Maximum	23	49	70	27	38	26	28	27	51	26	28	42	61
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Physical Properties														
Moisture	Mean	49.5	53.1	56.8	49.1	53.1	58.0	53.4	61.4	54.0	50.6	56.6	61.1	54.8
	S.D.	1.4	3.7	1.8	2.1	3.3	2.5	1.2	2.9	1.0	4.1	1.4	2.5	0
	Minimum	48	48	55	45	50	54	52	58	53	46	55	57	55
	Maximum	51	56	59	50	57	61	55	64	55	54	59	63	55
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0
Radionuclides														
Lead-210	Mean	0.0020	0.0020	0.0020	0.0022	0.0020	0.0020	0.0020	0.0027	0.0020	0.0023	0.0028	0.0052	0.0020
	S.D.	0	0	0	0.0004	0	0	0	0.0012	0	0.0006	0.0008	0.0039	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002
	Maximum	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.004	0.002	0.003	0.004	0.012	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	4	5	5	5	2	3	2	2	0	1
Polonium-210	Mean	0.0005	0.0013	0.0007	0.0005	0.0019	0.0016	0.0006	0.0050	0.0014	0.0080	0.0007	0.0118	0.0005
	S.D.	0	0.0006	0.0002	0.0001	0.0013	0.0006	0.0001	0.0020	0.0005	0.0017	0.0003	0.0042	0
	Minimum	0.0005	0.0007	0.0005	0.0004	0.0007	0.0009	0.0005	0.003	0.001	0.006	0.0005	0.008	0.0005
	Maximum	0.0005	0.002	0.001	0.0005	0.004	0.002	0.0008	0.007	0.002	0.009	0.001	0.019	0.0005
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	4	0	2	5	0	0	3	0	0	0	2	0	1
Radium-226	Mean	0.0009	0.0012	0.0022	0.0009	0.0012	0.0016	0.0012	0.0013	0.0010	0.0027	0.0009	0.0015	0.0010
	S.D.	0.00008	0.0004	0.0016	0.0001	0.0005	0.0013	0.0005	0.0006	0	0.0029	0.00009	0.0010	0
	Minimum	0.0008	0.001	0.001	0.0008	0.0009	0.001	0.0008	0.0009	0.001	0.001	0.0008	0.0006	0.001
	Maximum	0.001	0.002	0.005	0.001	0.002	0.004	0.002	0.002	0.001	0.006	0.001	0.003	0.001
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	4	2	5	4	4	2	2	3	2	4	3	1

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Thorium-230	Mean	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.002	0.002	0.002	0.002
	S.D.	0	0	0	0	0	0	0.0004	0	0.0006	0.0006	0.0004	0	0
	Minimum	0.002	0.002	0.002	0.002	0.002	0.002	0.001	0.002	0.002	0.002	0.001	0.002	0.002
	Maximum	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.003	0.003	0.002	0.002	0.002
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	4	5	3	2	3	5	5	1
Trace Elements														
Antimony	Mean	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	Maximum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Arsenic	Mean	0.26	0.19	0.13	0.22	0.32	0.04	0.09	0.02	0.03	0.07	0.06	0.05	0.03
	S.D.	0.066	0.050	0.034	0.047	0.088	0.013	0.022	0.006	0.010	0.029	0.016	0.008	0
	Minimum	0.16	0.14	0.08	0.16	0.18	0.03	0.05	0.02	0.02	0.05	0.03	0.04	0.03
	Maximum	0.34	0.27	0.17	0.29	0.41	0.06	0.1	0.03	0.04	0.1	0.07	0.06	0.03
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	1	0	0	0	0
Beryllium	Mean	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	S.D.	0	0	0	0	0	0	0	0	0	0	0	0	0
	Minimum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	Maximum	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	5	5	5	5	5	5	3	3	3	5	5	1
Cobalt	Mean	0.01	0.03	0.02	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.02	0.02
	S.D.	0	0.005	0.005	0.004	0	0.004	0.004	0.006	0	0.006	0	0.007	0
	Minimum	0.01	0.02	0.01	0.01	0.02	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.02
	Maximum	0.01	0.03	0.02	0.02	0.02	0.02	0.02	0.02	0.01	0.02	0.02	0.03	0.02
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	1	0	0	2	0	0	0	0	0	0	0	0	0
Strontium	Mean	68.6	233.8	92.6	69.0	218.0	150.6	115.2	178.7	108.0	199.7	165.0	275.0	164.0
	S.D.	14.2	43.6	13.0	11.3	49.4	29.3	15.3	12.5	7.2	32.1	15.6	22.1	0
	Minimum	49	175	81	54	156	128	95	166	102	169	151	252	164
	Maximum	85	286	113	82	287	201	132	191	116	233	189	301	164
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	0	0	0	0	0	0	0	0	0	0	0	0	0

APPENDIX F, TABLE 24

Fish bone chemistry descriptive statistics for the EARMP technical program, fall 2011.

Analyte[1]	Data	Crackingstone Inlet			Ellis Bay		Waterbury Lake				Pasfield Lake			
		LT	LW	NP	LT	LW	LSU	LT	LW	NP	LSU	LT	LW	NP
Vanadium	Mean	0.05	0.48	0.05	0.05	0.12	0.05	0.05	0.19	0.05	0.05	0.05	0.12	0.05
	S.D.	0	0.85	0	0	0.05	0	0	0.06	0	0	0	0.03	0
	Minimum	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.14	0.05	0.05	0.05	0.08	0.05
	Maximum	0.05	2	0.05	0.05	0.19	0.05	0.05	0.25	0.05	0.05	0.05	0.15	0.05
	N	5	5	5	5	5	5	5	3	3	3	5	5	1
	<MDL	5	3	5	5	1	5	5	0	3	3	5	0	1

[1]All concentrations are presented on a µg/g wet weight basis, unless specified otherwise.

[2]0 signifies no variation, not a very small value.

All values < MDL were set equal to the MDL for the calculation of descriptive statistics; S.D. = standard deviation.