

**APPENDIX E:
SURFACE WATER QUALITY BASELINE DATA REPORT
PALMER ENVIRONMENTAL**

Prepared for:
Canadian Environmental Assessment Agency

Prepared by:
Ambershaw Metallics Inc.
1184 Roland Street, Suite 500
Thunder Bay, ON
P7B 5M4

Tel: (807) 707-9959

AMBERSHAW PROJECT SITE

SURFACE WATER QUALITY BASELINE DATA REPORT

ADVANCED EXPLORATION PERMIT

PREPARED FOR:
AMBERSHAW METALLICS INC.

PREPARED BY:
PALMER ENVIRONMENTAL CONSULTING GROUP INC.

MARCH 20, 2019

Revision History

REV. NO.	DATE	AUTHOR	DESCRIPTION
1	March 19, 2019	DK, SF, AB	Updated to most recent mine plan layout and minor revisions from PB

Table of Contents

1	Introduction	1
1.1	Background	1
1.2	Project Setting.....	1
1.3	Overview of the Project.....	2
2	Water Quality Baseline Program Overview	6
2.1	Project Objective.....	6
2.2	Scope of Work.....	6
2.3	Temporal Boundaries	6
2.4	Spatial Boundaries.....	6
3	Physical Setting	7
3.1	Overview.....	7
3.2	Geological Overview.....	7
3.3	Climate and Hydrometeorology.....	8
3.4	Watersheds.....	8
3.4.1	Bending Lake Watershed	8
3.4.2	Wabigoon Lake Watershed	9
3.4.3	Wapageisi Lake Watershed	9
3.4.4	Turtle River-White Otter Watershed	9
4	Methodology.....	9
4.1	Objectives	9
4.2	Surface Water Sampling Methodology	9
4.2.1	Surface Water Sampling.....	10
4.2.2	Lake Sampling.....	10
4.3	Laboratory Analysis	11
4.4	Regulatory Criteria for Assessing Water Quality.....	11
4.4.1	Provincial Water Quality Objectives	11
4.4.2	Canadian Surface Water Quality Guidelines	12
4.5	Non-Regulatory Criteria for Water Body Classifications	15
4.5.1	Physical Parameters.....	15
4.5.2	Trophic Status.....	15

4.6 Quality Assurance and Quality Control 16

5 Surface Water Quality Assessment 17

5.1 Regional Study Area (RSA) 20

5.1.1 Stormy Lake Watershed Water Quality Sites 20

5.1.2 Beak Lake Watershed Water Quality Sites..... 20

5.2 Local Study Area (LSA) 20

5.2.1 Bending Lake Watershed Water Quality Sites..... 21

5.3 Sampling Frequency 21

5.4 Data Analyses..... 21

5.4.1 Summary Statistics..... 21

6 Baseline Water Quality Results and Discussion..... 22

6.1 QA/QC Results..... 22

6.1.1 Field Duplicates..... 22

6.1.2 Field Blanks..... 22

6.1.3 Metals Analysis 22

6.1.4 QA/QC Summary..... 22

6.2 LSA Water Quality Assessment (Bending Lake Watershed) 23

6.2.1 Physical Parameters, Major Ions and Nutrients 23

6.2.2 Metals and Metalloids 24

6.3 Regional Study Area (RSA): Wabigoon Lake Watershed 26

6.3.1 Physical Parameters, Major Ions and Nutrients 26

6.3.2 Metals and Metalloids 27

6.4 Regional Study Area (RSA) (Wapageisi Lake Watershed) 28

6.4.1 Physical Parameters, Major Ions and Nutrients 28

6.4.2 Metals and Metalloids 28

6.5 Lake Profiles..... 28

6.6 Conclusion..... 29

7 Proposed Monitoring and Mitigation Program 30

8 Certification 31

9 References 32

List of Tables

Table 4-1. Applicable PWQO Criteria..... 12

Table 4-2. Canadian Environmental Quality Guidelines for Protection of Aquatic Life 14

Table 5-1: Summary of Samples Collected by Watershed and Sites..... 19

List of Figures

Figure 1-1. Project Location 3

Figure 1-2. Project Study Area 4

Figure 1-3. Project Development Area 5

Figure 5-1. Surface Water Quality Sites..... 18

Figure 6-1: Relationship between Dissolved Organic Carbon and Total Phosphorus in Bending Lake Watershed 24

Figure 6-2: Aluminum in the Bending Lake Watershed..... 25

Figure 6-3: Cadmium in the Bending Lake Watershed 25

Figure 6-4: Iron in the Bending Lake Watershed 26

Figure 6-5: Lead in the Bending Lake Watershed 26

Figure 6-6: Iron in Wabigoon Watershed Lakes..... 27

Figure 6-7: Oxygen and Temperature Profile in Beak Lake, May 2018 29

List of Appendices

Appendix 1	Laboratory Certificates of Analysis (CoA) and Chains of Custody (CoC)
Appendix 2	Water Quality Results Comparison to PWQO Guidelines
Appendix 3	Water Quality Results Comparison to CWQG-PAL Short and Long-term Criteria
Appendix 4	QA/QC Procedures
Appendix 5	Sample Exceedances at each Site
Appendix 6	Historical Data
Appendix 7	Water Quality Summary Statistics
Appendix 8	2017-2018 Photograph Log
Appendix 9	RWDI Air Quality Assessment Report, November 2017

1 INTRODUCTION

1.1 Background

Ambershaw Metallics Inc. (“AMI”) is a Canadian DR-grade magnetite pellet developer company with interests in the Bending Lake Property (“Property” or “site”) located approximately 35 km southwest of Ignace, Ontario and 80 km north of Atikokan, Ontario and accessed via a secondary access road from Highway 622 (**Figure 1-1**). This document is one of a series of environmental baseline reports prepared by Palmer Environmental Consulting Group Inc. (PECG) to describe the existing environmental conditions at the property to support an application to the Ministry of Energy, Northern Development and Mines (ENDM) to support the Bending Lake Advanced Exploration Project (“Project”).

The Project consists of an open pit with the extraction of approximately up to 100,000 tonnes of iron mineralized rock to allow for an examination of potential development options with respect to the mineralized rocks present and process options to assess the potential of a commercially viable mine. To support this project PECG initiated an integrated baseline environmental program in May 2017 to expand upon the limited environmental information available near the site to provide a comprehensive understanding of the existing environmental conditions.

This introduction section is included in each environmental baseline document prepared by PECG such that each report can be read independently. This report presents the Baseline Water Quality Conditions for the Project. The other baseline reports in the series are those prepared for the following environmental disciplines:

- Hydrology;
- Hydrogeology;
- Fish and Fish habitat; and,
- Terrestrial Ecology.

While each baseline document has been prepared separately, it is recognized that all physical, chemical and biological systems are interconnected. As such, PECG has focused on taking an ecosystem and watershed-based approach to understanding the integrated nature of the existing environmental conditions for the Project.

1.2 Project Setting

The Bending Lake property is situated at the southeasterly end of a 30 km long northwest-southeast trending belt of Achaean metamorphosed volcanic and sedimentary rocks which is part of a 70 km long belt of supracrustal rocks referred to as the Manitou-Stormy Lakes greenstone belt. The Project site is located at UTM Zone 15 N 5463800 m, E 559600 m.

Presently, the area is characterized by a wilderness, forestry and mineral exploration land use. Access to the site is along a series of historical mining and logging roads, accessed from Highway 622 (**Figure 1-2**). The Advanced Exploration site is located on a local topographic high between the Wabigoon Lake

Subwatershed and the Bending Lake Subwatershed, with extraction activities focus in the Bending Lake Subwatershed (**Figure 1-3**). Page Lake is located south of the site and Bending Lake is located to the east. Page Lake drains into Bending Lake along a small first order stream located in the southern portion of the Project Development Area. Surface water flow at the site is towards the north towards a wetland and drainage features that ultimately discharges onto Bending Lake.

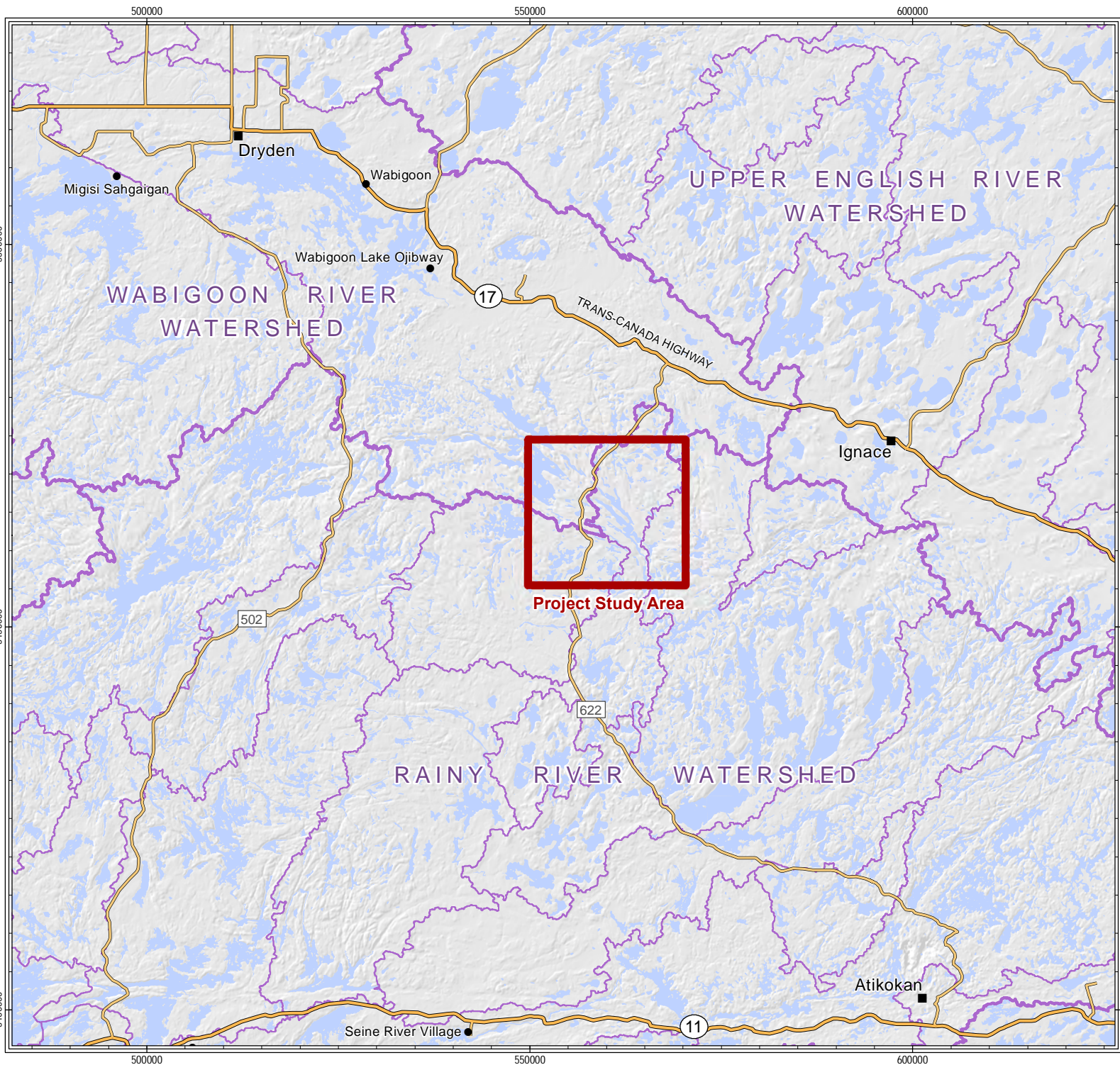
1.3 Overview of the Project

AMI proposes to complete a bulk sampling program as part of an Advanced Exploration Project for the Bending Lake Property. As part of this program, AMI proposes to complete earthworks and bedrock extraction from a small open pit for an up to 100,000 tonne bulk sampling program, with crushing and sampling completed on-site. The bulk sample will be trucked off-site for processing at an approved facility to test metallurgical recoveries to assess the commercial viability of the mine. The Project Description prepared by AMI (October 2018) provides additional details on the proposed Project

The proposed Project site facilities layout is presented within the Project Development Area on **Figure 1-3**. Preference has been given to utilizing previously disturbed areas and existing access roads to complete the Project. The major proposed Project components are expected to include:





- Open Pit (104 m by 71 m by 10 m deep);
- Stockpiles;
- Portable Crusher;
- Administration and Parking Facilities;
- On-Site Power and Waste Facilities; and
- Project Access Roads.

The Project is proposed to be completed in three phases, with an overall project duration of 4 months. A monitoring and mitigation plan will be implemented based on the recommendations from each of the technical environmental disciplines.



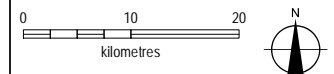
Ambershaw Metallics, Inc.

LEGEND

-  Major Highway
-  Minor Highway
-  Watershed Boundary
-  Subwatershed Boundary



Data Sources: Ministry of Natural Resources and Forestry (Watersheds), Natural Resources Canada (Roads, Place Names), Esri basemap service (Imagery).



DRAWN: B. Elder/S. Feist
 CHECKED: J. Cole
 PROJECT: 17018
 DATE: Dec 16, 2018

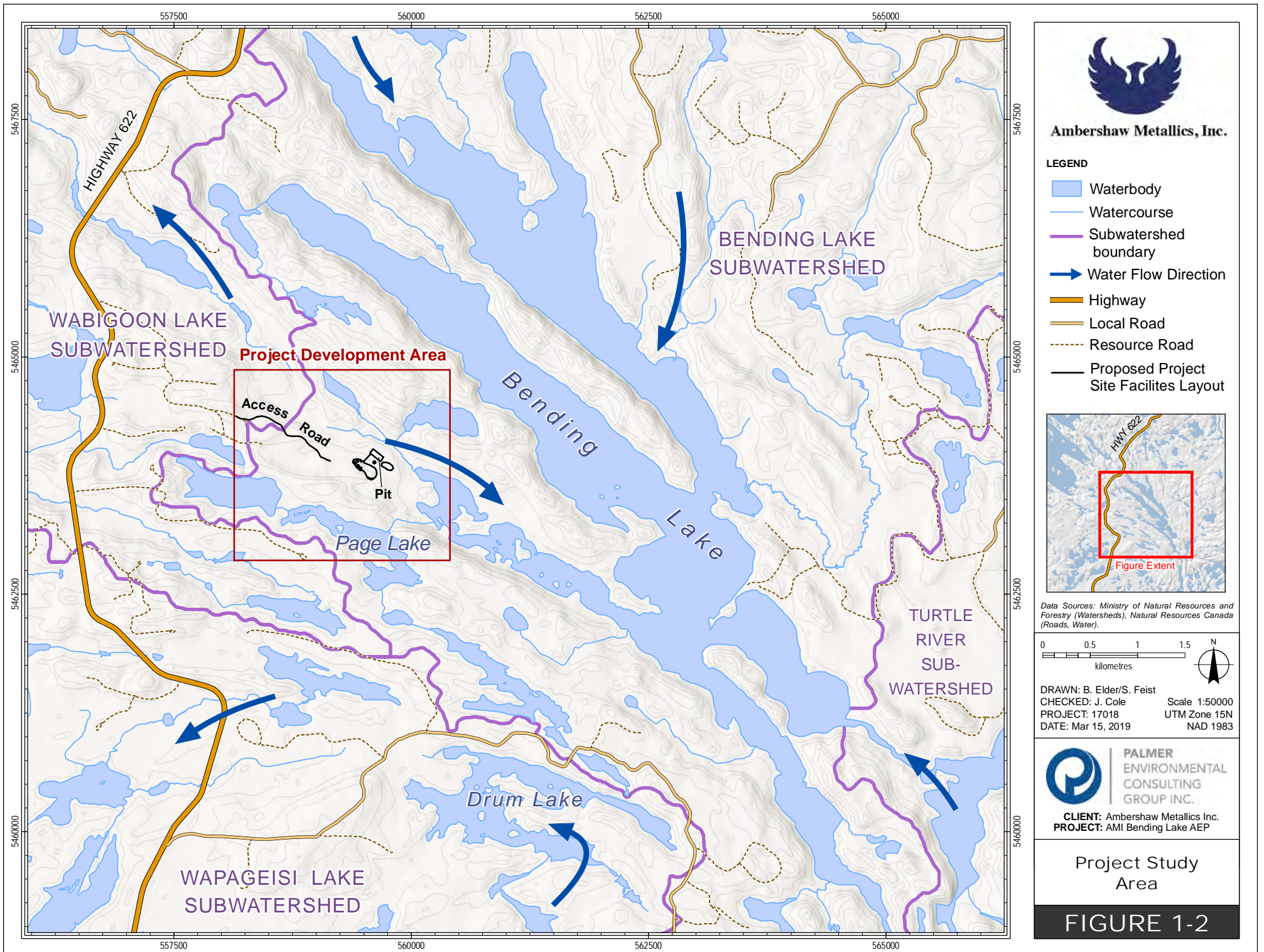
Scale 1:700000
 UTM Zone 15N
 NAD 1983



CLIENT: Ambershaw Metallics Inc.
PROJECT: AMI Bending Lake AEP

Project Location

FIGURE 1-1



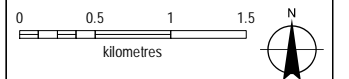
Ambershaw Metallics, Inc.

LEGEND

- Waterbody
- Watercourse
- Subwatershed boundary
- Water Flow Direction
- Highway
- Local Road
- Resource Road
- Proposed Project Site Facilities Layout



Data Sources: Ministry of Natural Resources and Forestry (Watersheds), Natural Resources Canada (Roads, Water).



DRAWN: B. Elder/S. Feist
 CHECKED: J. Cole
 PROJECT: 17018
 DATE: Mar 15, 2019

Scale 1:50000
 UTM Zone 15N
 NAD 1983



CLIENT: Ambershaw Metallics Inc.
PROJECT: AMI Bending Lake AEP




Project Study Area

FIGURE 1-2



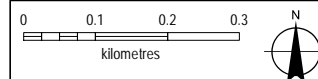
Ambershaw Metallics, Inc.

LEGEND

-  Watercourse
-  Proposed Project Site Facilities Layout
-  Contour (10 m)



Data Sources: Natural Resources Canada (Roads, Water, Contours, DEM).



DRAWN: S. Feist
 CHECKED: J. Cole
 PROJECT: 17018
 DATE: Mar 14, 2019

Scale 1:10500
 UTM Zone 15N
 NAD 1983



CLIENT: Ambershaw Metallics Inc.
PROJECT: AMI Bending Lake AEP

Project
 Development Area

FIGURE 1-3

2 WATER QUALITY BASELINE PROGRAM OVERVIEW

2.1 Project Objective

The primary objectives of the baseline surface water technical report are to:

- Present the collection and analysis of water quality data to characterize the existing conditions,
- Evaluate the water quality data to develop a conceptual understanding of the surface water environment for future Environmental Assessment studies, and
- Provide the basis for assessing potential water quality effects, mitigation measures, monitoring and contingency planning as the Project planning proceeds.

2.2 Scope of Work

This report presents methods and results of baseline surface water quality studies in support of the Advanced Exploration (AE) permit for Ambershaw Mining Project (the Project). PECG was responsible for all recent sampling activities (May 2017 to May 2018). The primary objective of the baselines surface water quality was to establish a monitoring network that will help ensure that data requirements of the AE permit and future EA applications are met. The network and study design will also help ensure that future data requirements of the Environmental Assessment will be satisfied. The baseline information gathered will be used to establish surface water quality inputs for use in the predictive water and load balance used to estimate potential changes to water quantity and quality resulting from mining activities.

2.3 Temporal Boundaries

The Bending Lake watershed has been studied in the past, with various monitoring programs taking place within the Project area between 1978 and 2011. This includes the 1978 Environmental Assessment completed for the Bending Lake Project, prepared for Steep Rock Iron Mines Limited in Atikokan, Ontario (Capper, 1978), and the 2011 preliminary technical report prepared by Fladgate Exploration Consulting Corporation for Bending Lake Iron Group Limited (Fladgate Exploration, 2011).

Water quality data specific to the development proposed by Ambershaw Metallics Inc. and used in this baseline assessment were collected in 2017 and 2018. The data collected in 2011 by Fladgate Exploration (2011) were compared to 2017 and 2018 data to discern any common or distinct patterns between the studies.

2.4 Spatial Boundaries

The extent of the spatial boundaries for the Surface Water Quality Baseline Study for the Project includes the following areas:

Project Study Area – The Project Study Area boundaries have been delineated to coincide with mapped watershed boundaries of the Bending Lake, Wabigoon Lake, Wapageisi Lake and Turtle River subwatersheds as shown on **Figure 1-2**. Discipline specific investigations may extend outside of the area shown on **Figure 1-2** but are fully contained within the mapped subwatershed boundaries shown on **Figure 1-1**.

Project Development Area – The Project Development Area boundary encompasses the area immediately affected by the proposed Bending Lake Advanced Exploration Project site facilities as shown on **Figure 1-3**.

3 PHYSICAL SETTING

3.1 Overview

The project falls within the greater Big Turtle-Rainy Lake drainage basin. The immediate project area is within the Bending Lake watershed. The regional area encompasses the Wapageisi and Wabigoon Lake sub-watersheds which are covered with small to medium sized shallow to moderate-depth lakes. The lakes are hydraulically connected by bedrock controlled networks of streams and drainageways.

The project is located in the Boreal Shield ecozone and more specifically the Thunder Bay-Quetico ecoregion that extends westward from Thunder Bay to Sioux Lookout and Rainy Lake in northwestern Ontario. The ecoregion is classified as having low boreal eco-climate. The forests of the local study area are predominantly deciduous, with areas of coniferous forest and perched marshes and wetlands.

The topography of the project area is consistent between watersheds and the hydrological and climatic properties of the Wapageisi are expected to be similar to those of the Bending Lake watershed. The Wabigoon Lake watershed is much larger than the watersheds that make up the majority of the project area; however, sections of this watershed that are included in the baseline study are small and expected to retain the same physical properties as the Wabigoon and Bending Lake watersheds. Therefore, physical properties of Bending Lake in the Bending Lake watershed are also assumed to apply to two lakes within the Wapageisi Lake and Wabigoon Lake watersheds, Beak Lake and Stormy Lake, respectively.

3.2 Geological Overview

The Ambershaw Project site is located within the James Region of the Severn Upland physiographic subdivision of the Canadian Shield. The Severn Upland primarily consists of Precambrian bedrock, with a shallow cover of Quaternary glacial deposits. Where present, the overburden comprises lacustrine clays or peat, the Sipiwek moraine, and several esker chains. The Sipiwek moraine is the main feature of the Severn Upland region and is located west of Sipiwek Lake in Manitoba. The moraine is composed of clay with varying amounts of sands and Precambrian till deposits. The topography of the region is generally described as undulating to gently rolling.

There is an Iron ore deposit located adjacent to Bending Lake that is known as the Bending Lake Iron Formation. This formation is about 9km long with an average thickness of 90-120 m (Blackburn et. Al,

1991). The Project site lies adjacent to the southwestern-most arm of Bending Lake. The topography at the property consists of a northwesterly trending, sub-parallel series of glacially sculpted ridges and topographic depressions, controlled by underlying geology. A steep escarpment is present trending northwestwards along the southwest shore of Bending Lake, and through the center of the Project site (Fladgate Exploration, 2011).

3.3 Climate and Hydrometeorology

Situated within a humid continental climate, the region experiences warm to hot summers and cold winters. Spring and autumn tend to be short seasons between long winters and shorter summers. The mean annual temperature for the Bending Lake climate station (Stn 1) and Dryden, ON is approximately 2°C to 3°C with mean daily maximum temperatures in the study area ranging from -10°C in January to 23°C in July, and mean daily minimum temperatures ranging from around -20°C in January to 13°C in July (RWDI, 2017; **Appendix 9**). The average morning relative humidity is highest in August and September (75% to 90%) with mid-afternoon values ranging from 45% to 76%, lowest values occurring from April through June and highest values occurring from November through January. The annual rainfall in the area is based on the Environment Canada climate normal at The Dryden City and Dryden Airport stations from 1981 to 2010. The average annual rainfall falls in the range of 500 to 600 mm, with the highest rainfall occurring in June and July (>100 mm per month). The area receives between 100 and 200 cm of snowfall annually, which is evenly distributed throughout the winter months (November through March) (RWDI, 2017; **Appendix 9**).

The hydrographs of streams in the area are generally low through the winter months (between November and April) with increased flows from early May to July. Spring freshet generally happens in late May and June and is characterized by higher precipitation and runoff contributing to creek flow. Precipitation is high throughout the summer months and extends late into the fall causing an autumn period where creek flow is predominantly recharged by surface runoff. Stream groundwater recharge is assumed to be the main source of surface water discharge in the winter months.

3.4 Watersheds

The Project area is located within the Bending Lake, Beak Lake and Stormy Lake quaternary watersheds, which are part of the tertiary watersheds of the Bear Passage-Rainy Lake and Wabigoon watersheds and belong to the Nelson River Basin.

3.4.1 Bending Lake Watershed

The Bending Lake mainstem is approximately 28 km long and encompasses an area of approximately 325 km². Bending Lake is the receiving environment of streams and creeks in the northern reaches of the watershed. The tributaries to Bending Lake include Bending Creek to the north, where it flows through West Hawk Lake, a smaller tributary draining Page Lake from the west along with various other smaller creeks. The waters of Bending Lake flow south to form the Turtle River, which travels southwards before emptying into Pekagoning Lake.

3.4.2 Wabigoon Lake Watershed

Wabigoon lake is approximately 48 km long and encompasses an area of approximately 4336 km². Stormy Lake, within the Wabigoon Lake watershed is the closest major water body in proximity to the project within the watershed. Tributaries from the east flowing to Stormy Lake are mainly unnamed and interconnect small lakes and marshlands along the gradient from the border of the watershed to Bending Lake watershed divide. Stormy Lake drains to the north through the adjoining Long Lake and further drains to the Wabigoon River East.

3.4.3 Wapageisi Lake Watershed

Wapageisi Lake is approximately 16 km long and encompasses an area of approximately 529 km². Beak Lake, within the Wapageisi River watershed is the closest major water body in proximity to the project within the watershed. Other notable lakes within the watershed include Drum lake, located approximately 2 km south of Bending Lake, which drains to the south to Osprey Lake and then westwards to Sandbar Lake. These smaller lakes are found higher in the watershed and gradually drain via marshlands and streams southwestwards to Wapageisi River. Beak Lake and Wapageisi Lake are the major waterbodies within the watershed and both drain southwards through Wapageisi River to eventually join the Turtle River.

3.4.4 Turtle River-White Otter Watershed

The Turtle River watershed has a mainstem length of approximately 35 km and encompasses an area of approximately 1238 km². The watershed is located to the east of the Bending Lake watershed and is the headwaters of Turtle River-White Otter Provincial Park. The watershed is mostly protected from human activity as accessibility to the region is limited. The watershed has a vast amount of small to medium sized lakes interconnected by slow flowing streams and marshlands. The watershed drains initially to the north and west, passes through the south end of Bending Lake and then drains to the south via the Turtle River.

4 METHODOLOGY

4.1 Objectives

The methods described in this section were employed for the surface water quality program to meet the objectives of the study and the data quality objectives. Since 2017, surface water samples were collected either by PEGC staff or under the technical guidance of PEGC personnel. Field staff who have collected samples were provided with work instructions and training which are summarized in the following subsections.

4.2 Surface Water Sampling Methodology

The water quality program and sampling protocol were implemented following the general requirements of the following documents:

- Protocols Manual for Water Quality Sampling in Canada. Canadian Council of Minister of the Environment (CCME, 2011)
- Conservation Ontario Discussion Paper: Recommendations for Monitoring Ontario's Water Quality. 2003
- Water and Air Baseline Monitoring Guidance Document for Mine Proponents and operators. Prepared by the BC Ministry of Environment (ENV, 2016)
- Lake and Stream Bottom Sediment Sampling Manual. Prepared by the Ontario Ministry of Environment (BC MOE, 2003).

Best practices were used for the sampling protocol. As an additional quality control, methodologies were compared against the British Columbia regulations and protocols as they are the most robust in Canada and will help ensure that a high quality data set is collected that can be relied upon for future monitoring and permitting activities.

4.2.1 Surface Water Sampling

In-situ parameters were routinely collected for each sample using a regularly calibrated multi-parameter probe. The multi-parameter probe was exposed to surface water conditions downstream of the sampling area, or away from the location of a lake sample, as not to disturb the sediments and was left in place until parameters stabilized. Parameters recorded during the in-situ monitoring included temperature, pH, conductivity, oxidation-reduction potential (ORP) and dissolved oxygen (DO).

Surface water grab samples were collected from the active flow channel, either by wading into the creek or by reach out from the banks. Water samples were collected by inserting the bottle neck down into the water; once submerged, the bottle opening was tipped upwards with the mouth facing upstream. This method minimizes the chance of debris from the water surface entering the bottle and contaminating the sample. In locations where the depth was not great enough to submerge the bottle, a 60-mL syringe was used to extract the sample from the watercourse. Dissolved metals and dissolved organic carbon samples were filtered using a 60 mL-syringe fitted with a 0.45- μm syringe filter. All samples were preserved and filtered in the field, unless otherwise specified, according to the instructions sent from the laboratory.

4.2.2 Lake Sampling

The collection of deep water and surface samples were obtained by boating to the specified area and deploying a Kemmerer sampling device (Kemmerer). The Kemmerer was opened fully before being lowered into the lake by a rope. The rope was graduated to determine lake depth. A messenger weight was sent down the rope to trip the Kemmerer mechanism to closing at a specified depth, thus trapping a discrete interval sample within the mechanism. The Kemmerer was raised to the surface where its contents were decanted into surface water quality sample bottles and filtered as required. In-situ parameters were obtained by lowering a multi-parameter probe with a depth sensor to the depth where the discrete interval sample was collected. In-situ parameters were recorded at the surface. In addition, complete vertical profiles at 1-m intervals were taken for DO and temperature.

4.3 Laboratory Analysis

Surface water and lake samples were submitted to ALS Environmental Laboratories in Thunder Bay, Ontario, for the following analyses:

- Physical Tests – Conductivity, hardness, pH, total suspended solids (TSS), and total dissolved solids (TDS);
- Anions – Acidity, alkalinity, bromide, chloride, and fluoride;
- Nutrients – Ammonia, nitrate, nitrite, total Kjeldahl nitrogen (TKN), total nitrogen (TN), orthophosphate (PO₄), total phosphorus (TP), and sulfate;
- Organic Carbon – Dissolved organic carbon (DOC), total organic carbon (TOC); and
- Total and Dissolved Metals.

4.4 Regulatory Criteria for Assessing Water Quality

The analytical results from surface water quality sampling were compared against several regulatory criteria. The guidelines relevant to the water quality data for the Project are as follows:

- Canadian Council of Ministers of the Environment (CCME) Canadian Environmental Quality Guidelines for the Protection of Freshwater Aquatic Life (CEQG-PAL, 2016); and
- Provincial Water Quality Objectives (PWQO).

Guidelines for some parameters are hardness and pH dependent. In these cases, the guideline was assessed based on the measured hardness and pH in each sample. For summary statistics and figures, the guidelines values were based on the average hardness or pH of all samples in the dataset or data subset used in the statistical analysis. Comparison of the analysis results to each of these criteria is described in detail in the following sections. The Laboratory Certificates of Analysis (CoA) and Chains of Custody (CoC) are provided in **Appendix 1**. Surface water sampling was completed to establish the natural baseline surface water chemistry conditions at the site; therefore, these comparisons were provided for reference purposes only.

4.4.1 Provincial Water Quality Objectives

The purpose of Ontario's PWQOs is to ensure surface water quality is satisfactory for aquatic life and recreation, and that water uses which require more stringent water quality be protected on a site-specific basis. Surface water samples were analyzed for a suite of metals in both total and dissolved forms. The PWQO guidelines generally refer to the total fraction of metals. The applicable PWQO are provided in **Table 4-1**.

Table 4-1. Applicable PWQO Criteria

Parameter	Units	PWQO Criteria
pH	-	6.5-8
Alkalinity, Total (as CaCO₃)	mg/L	Should not decrease by > 25% background concentration
Aluminum (Al)-Total	mg/L	pH 4.5-5.5: 0.015 pH 5.5-6.5: should not exceed 10% above background conditions pH 6.5-9: 0.075
Ammonia, Total (as N)	mg/L	0.02
Antimony (Sb)-Total	mg/L	0.02
Arsenic (As)-Total	mg/L	0.005
Beryllium (Be)-Total	mg/L	Hardness < 75: 0.011 Hardness > 75: 1.1
Boron (B)-Total	mg/L	0.2
Cadmium (Cd)-Total	mg/L	Hardness 0-100: 0.0001 Hardness > 100: 0.0005
Chromium (Cr)-Total	mg/L	Cr VI (hexavalent): 0.001 Cr III (trivalent): 0.0089
Cobalt (Co)-Total	mg/L	0.0009
Copper (Cu)-Total	mg/L	Hardness 0-20: 0.001 Hardness > 20: 0.005
Iron (Fe)-Total	mg/L	0.3
Lead (Pb)-Total	mg/L	Alkalinity < 30: 0.001 Alkalinity 30-80: 0.003 Alkalinity > 80: 0.005
Mercury (Hg)-Total	mg/L	0.0002
Molybdenum (Mo)-Total	mg/L	0.04
Nickel (Ni)-Total	mg/L	0.025
Phosphorus (P)-Total	mg/L	Lakes: 0.02 during ice free period, 0.01 if lake is naturally below 0.01; streams and rivers: 0.03
Selenium (Se)-Total	mg/L	0.1
Silver (Ag)-Total	mg/L	0.0001
Thallium (Tl)-Total	mg/L	0.0003
Tungsten (W)-Total	mg/L	0.03
Uranium (U)-Total	mg/L	0.005
Vanadium (V)-Total	mg/L	0.006
Zinc (Zn)-Total	mg/L	0.02
Zirconium (Zr)-Total	mg/L	0.004

The water quality results compared with PWQO are provided in **Appendix 2**.

4.4.2 Canadian Surface Water Quality Guidelines

Guidelines for the protection of freshwater life, agricultural water uses for irrigation and livestock, raw water drinking water supply, recreational water quality and aesthetics, and industrial water supplies were

released by the Canadian Council of Ministers of the Environment (CCME) in 1987. They were developed to provide a science-based benchmark for a nationally consistent level of protection for aquatic life in Canada. Guidelines are provided to prevent impacts from short-term (acute, less than 24 hours) and long-term (chronic, greater than 24 hours) exposure. The long-term and short-term CEQG-PAL are provided in **Table 4-2**.

Table 4-2. Canadian Environmental Quality Guidelines for Protection of Aquatic Life

Parameter	Units	CEQG-PAL Criteria	
		Short Term (< 24 hrs)	Long Term (> 24 hours)
pH	-	6.5-9	6.5-9
Ammonia, Total (as N)	mg/L	-	¹ refer to table
Chloride (Cl)	mg/L	640	120
Nitrate (as N)	mg/L	550	13
Nitrite (as N)	mg/L	-	0.197
Aluminum (Al)-Total	mg/L	-	0.005-0.1
Arsenic (As)-Total	mg/L	-	0.005
Boron (B)-Total	mg/L	29	1.5
Cadmium (Cd)-Total	mg/L	$\frac{10^{(1.016 \times (\log(H)) - 1.71)}}{1000}$	$\frac{10^{(0.83 \times (\log(H)) - 2.46)}}{1000}$
Chromium (Cr)-Total	mg/L	-	0.0089
Copper (Cu)-Total	mg/L	-	$\frac{0.2 \times e^{(0.8545 \times (\ln(H)) - 1.465)}}{1000}$
Iron (Fe)-Total	mg/L	-	0.3
Lead (Pb)-Total	mg/L	-	$\frac{e^{(1.273 \times (\ln(H)) - 4.705)}}{1000}$
Mercury (Hg)-Total	mg/L	-	0.000026
Molybdenum (Mo)-Total	mg/L	-	0.073
Nickel (Ni)-Total	mg/L	-	$\frac{e^{(0.76 \times (\ln(H)) + 1.06)}}{1000}$
Selenium (Se)-Total	mg/L	-	0.001
Silver (Ag)-Total	mg/L	-	0.0001
Thallium (Tl)-Total	mg/L	-	0.0008
Uranium (U)-Total	mg/L	33	0.015
Vanadium (V)-Total	mg/L	-	0.03

¹ Ammonia Reference Table

H Hardness

Ammonia Reference Table

		pH								
		-	6.0	6.5	7.0	7.5	8.0	8.5	9.0	10.0
Temperature (°C)	0	231.0	73.0	23.1	7.32	2.33	0.749	0.25	0.042	
	5	153.0	48.3	15.3	4.84	1.54	0.502	0.172	0.034	
	10	102.0	32.4	10.3	3.26	1.04	0.343	0.121	0.029	
	15	69.7	22.0	6.98	2.22	0.715	0.239	0.089	0.026	
	20	48.0	15.2	4.82	1.54	0.499	0.171	0.067	0.024	
	25	33.5	10.6	3.37	1.08	0.354	0.125	0.053	0.022	
	30	23.7	7.50	2.39	0.767	0.256	0.094	0.043	0.021	

The water quality results compared with CWQG-PAL short and long-term criteria are provided in **Appendix 3**.

4.5 Non-Regulatory Criteria for Water Body Classifications

4.5.1 Physical Parameters

Physical parameters are an important part of water quality characterization; however, many jurisdictions do not have any directly applicable guidelines. To define water types, alkalinity, TDS and hardness concentrations are compared against established levels and the ranges used in this report are listed below:

Alkalinity is a measure of the sensitivity of a water body to changes in pH and is reported as [CaCO₃] (BC MoE 2015b):

- Highly sensitive to acidic inputs with low buffering capacity: less than 10 mg/L CaCO₃,
- Moderate sensitivity to acidic inputs with buffering capacity: 10 mg/L CaCO₃ to 20 mg/L CaCO₃, and
- Low sensitivity to acidic inputs: ≥ 20 mg/L CaCO₃.

TDS is used to classify water salinity in the following categories (NGWA 2010):

- Freshwater: less than 1,000 mg/L,
- Slight saline water: 1,000 mg/L to 3,000 mg/L,
- Moderate saline water: 3,000 mg/L to 10,000 mg/L, and
- Highly saline water: ≥ 10,000 mg/L.

Water hardness can be defined as soft to very hard, based on the following ranges of [CaCO₃]:

- Soft: 0 mg/L to 60 mg/L
- Moderate hardness: 61 mg/L to 120 mg/L
- Hard: 121 mg/L to 180 mg/L, and
- Very hard: ≥ 181 mg/L.

4.5.2 Trophic Status

The trophic status of a water body is defined by the natural concentrations of phosphorus. Phosphorus is typically the limiting nutrient in a waterbody and this is assumed to be the case in the study area as well. Trophic levels for fresh waters have been defined by the Federal government (CCME, 2014) in the publication *Phosphorus: Canadian Guidance Framework for the Management of Freshwater Systems*. The ranges for total phosphorus (TP) and the associated trophic category are as follows:

- Ultra-oligotrophic: < 0.004 mg/L,
- Oligotrophic: 0.004 mg/L to 0.010 mg/L,
- Mesotrophic: 0.010 mg/L to 0.020 mg/L,
- Meso-eutrophic: 0.020 mg/L to 0.035 mg/L,
- Eutrophic: 0.035 mg/L to 0.100 mg/L, and
- Hyper-eutrophic: > 0.100 mg/L.

4.6 Quality Assurance and Quality Control

A quality assurance and quality control (QA/QC) program was implemented from the on-set of the environmental baseline program. The program assists with obtaining representative data in a manner which is scientifically defensible, repeatable, and complete. Quality assurance is implemented by management through organization and planning and through the enforcement of both internal and external measures. The following summary lists the QA/QC procedures that were followed during this baseline program and details are provided in **Appendix 4**.

- Internal quality control:
 - Staffing the project with qualified and experienced individuals;
 - Ensuring that all samples and data were collected following the prescribed sampling protocols, including preservation and documentation measures;
 - Regular calibration and maintenance of all rental and non-rental field equipment; and
 - Collection of duplicate and field blank samples for analysis (approximately 10% of all samples).
- External Quality Control:
 - Employment of fully accredited laboratories for the analysis of samples, and
 - Determination of analytical precision and accuracy through the interpretation of the analysis reports for duplicates and field blanks.

The quality of the data set used in this report was assessed based on the adherence to pre-set data quality objectives (DQO's). DQO's assess the QA/QC data and determine whether the data were precise, accurate, representative and complete. The results from the QA/QC samples (duplicates and field blanks) were reviewed to determine if sample contamination occurred on site or through laboratory processes. Immediately after the sample receipt confirmation was issued by the laboratory, any integrity issues that were flagged were addressed and steps were taken to mitigate these issues. ALS also evaluated analytical duplicates, certified reference material, and matrix spikes for quality control. The laboratory data was compiled using Microsoft Excel, along with notes, photos, in-situ data and sample-specific Certificates of Analysis from ALS. The data was reviewed for anomalies and further investigations/reviews were completed including:

- Duplicate samples,
- Blank samples,
- Total and dissolved metals comparison,
- Data validation,
- Method detection limits (MDL),
- Analytical accuracy and precision, and
- Outliers.

Details and results of the QA/QC assessment procedures including data which have been flagged or rejected are provided in **Section A** and **Appendix 4**.

5 SURFACE WATER QUALITY ASSESSMENT

The surface water quality sampling locations and rationale are described in the subsection below, grouped by watershed. A figure showing all the sampling locations are shown in **Figure 5-1**, with photographs of sampling locations in **Appendix 8**. A summary of the samples collected to date is provided for each sample site in **Table 5-1**. The focus of this baseline surface water quality study is to characterize the Bending Lake watershed, where the project facilities, including the bulk sample area, and most of the water quality monitoring sites are located; however, water quality monitoring sites have been established in the following three water watersheds:

- Bending Lake,
- Wabigoon, and
- Wapageisi.

The baseline characterization of surface water quality is focused on summarizing the physical characteristics of the water found in the project area, particularly in the local study area including future site bulk sample excavation and any preliminary open pit or mine rock facility locations (LSA). This analysis is used as a technical review of current water quality conditions on site and will assist in determining and quantifying future changes in water quality as a result of the Project.

The water quality data was compared against relevant federal (CEQG-PAL) and provincial water quality objectives (PWQO). The focus of this comparison was on relevant CEQL-PAL guidelines, because they are the most conservative guidelines. The analytes concentrations were described qualitatively as low, high, very high or elevated when compared against relevant guidelines and typical natural waters. The results are highlighted and described on a per-watershed basis and seasonal variability of the water quality was discussed. Summaries of the percentage of the number of samples at each site that exceed one or more guideline are shown in **Appendix 5**.

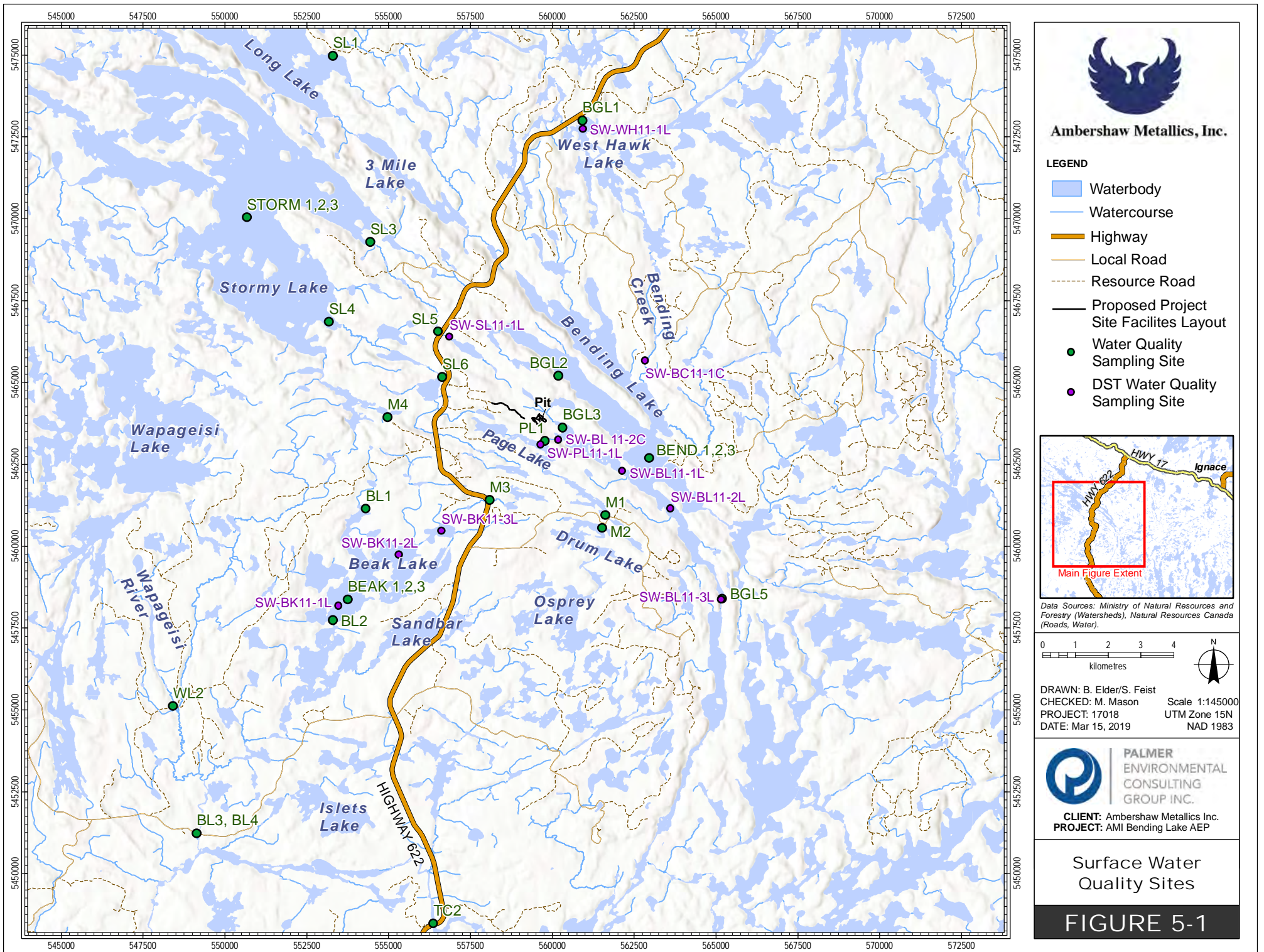


Table 5-1: Summary of Samples Collected by Watershed and Sites

Watershed, Sample group	Lake	Station Name	Samples Collected					
			Jun-11	Aug-11	Jun-17	Aug-17	Oct-17	May-18
Turtle Creek	Agimak Lake	TC1			X	X	X	X
		TC2			X	X	X	X
		TC3						
Bending Lake	West Hawk Lake	BGL1	X	X	X	X	X	X
	Bending Lake	BGL2			X	X	X	X
	Bending Lake	BGL3			X	X	X	X
	Bending Lake Profile	Bending Lake 1	X	X	X	X	X	X
		Bending Lake 2		X	X	X		
		Bending Lake 3		X	X	X	X	
Bending Lake	BGL5	X	X	X	X	X	X	
Stormy Lake	Long Lake	SL1						
	Stormy Lake Profile	Stormy Lake 1			X	X		X
		Stormy Lake 2			X	X		
		Stormy Lake 3			X	X		
	Stormy Lake	SL3				X		X
	Stormy Lake	SL4						X
	Unnamed Lake #1	SL5	X	X	X	X	X	X
Unnamed Lake #2	SL6			X	X	X	X	
Wapageisi Lake	Wapageisi Lake	WL1						
	Wapageisi Lake	WL2			X	X	X	X
	Wapageisi Lake	WL3						
	Wapageisi River	WL4						
Beak Lake	Beak Lake	BL1			X	X	X	X
	Beak Lake	BL2				X		X
	Beak Lake Profile	Beak Lake 1	X	X		X		X
		Beak Lake 2		X		X		
		Beak Lake 3		X		X		
	Beak Lake	BL3				X		
Beak Lake d/s	BL4			X	X	X	X	
Others	Osprey Lake	M1			X	X	X	X
	Drum Lake	M2			X	X	X	X
	Unnamed Lake #3	M3		X		X	X	X
	Unnamed Lake #4	M4			X	X	X	X
	Unnamed Lake #5	M5						
	Unnamed Lake #6	M6						
	Page Lake	PL1	X	X			X	X
QAQC Samples	Field Blank		X	X	X	X	X	X
	Duplicate				X	X	X	X
TOTAL SAMPLES			7*	12*	22	29	20	24

*Samples collected by Fladgate Explorations (2011); some additional sites were sampled in 2011 but not in 2017 or 2018 and therefore not listed here.

5.1 Regional Study Area (RSA)

The extent of the RSA for the purposes of this study includes Beak Lake within the Wapageisi Lake watershed and Stormy Lake within the Wabigoon Lake watershed. Both watersheds are located adjacent to the Bending Lake watershed where most project activities are expected to occur. Agimak Lake, near Ignace, ON (TC1) was selected as a distant reference site. Watershed-specific sampling sites are described below:

5.1.1 Stormy Lake Watershed Water Quality Sites

Stormy Lake is located north of the proposed Project site and northwest of the other Project features. The Wabigoon Lake watershed boundary runs almost parallel to Highway 622 to the west of the project and is included in the study to ensure that if mining facility designs change that the Stormy Lake watershed can be adequately characterized or studied. The monitoring sites were established in May 2017.

The monitoring sites are scattered along the eastern flank of the watershed, with sites located along smaller waterbodies near Highway 622 (SL5 and SL6) while other sites are located on the eastern edges of Stormy Lake (SL3 and SL4). The monitoring site M4 is located roughly 1.5 km west of Highway 622 in the direction of Stormy Lake. A lake profile and monitoring site was established in the deepest site in Stormy Lake near the Snake Bay access point to the west. The downstream monitoring site (SL1) is located on Long Lake, the last monitoring location before the Stormy Lake/Long Lake networks drains into the Wabigoon East River. In 2011, SL5 was sampled in this watershed.

5.1.2 Beak Lake Watershed Water Quality Sites

Beak Lake is located immediately south of the proposed Open Pit facility and southwest of the other Project features. The Wapageisi Lake watershed boundary runs just south of the proposed mining facilities and to the west along the southern border of the Wabigoon Lake drainage area. The monitoring locations were added to the sampling program to help characterize the surface water quality near preliminary mining features. Monitoring will continue at these locations as current mining facility designs change. The monitoring sites were established in May 2017.

The monitoring sites are located along the northern portion of the watershed, with site M2 (Drum Lake) located south of the Bending Lake-Beak Lake watershed divide. Monitoring locations were placed along inflow tributaries to Beak Lake (BL1 and M3). A lake profile and monitoring site was established in the deepest site in Beak Lake where measurements and samples were collected (BEND1, BEND2 and BEND3). Site BL2 is located near the outlet of Beak Lake to the south. The furthest downstream site (BL4) is located 1.5 km downstream of the confluence of the Beak Lake drainage feature and the Wapageisi River and 0.5 km upstream of the outlet into the Turtle River. The monitoring site for the Wapageisi River (WL2) is located approximately 3 km upstream from the confluence with the Beak Creek. In 2011, samples were collected in Beak Lake and in a lake upstream of Beak Lake and near M3.

5.2 Local Study Area (LSA)

The LSA boundaries for the baseline study are located within Bending Lake watershed. The major mining features proposed for the project are located within the boundaries of this watershed and more

specifically, between the southwestern portion of Bending Lake and Highway 622. The surface water quality monitoring sites are described in the following sections.

5.2.1 Bending Lake Watershed Water Quality Sites

Monitoring locations within the Bending Lake watershed have been established to characterize the main tributaries to Bending Lake and any watercourses that travel within the project area. The monitoring sites were established in May 2017, with the addition of PL1 in Page Lake in October 2017.

The monitoring locations within the footprint of the proposed project include PL1 (stream) and BGL3 (lake). The monitoring sites along Bending Lake are extensive with BGL2 located in the western most bay of Bending Lake to the north of the project. Monitoring site BGL5 is located at the southernmost bay, near the outlet to Turtle River and M1, located on the divide between the Bending Lake watershed and Wapageisi Lake watershed to the southeast of the project site. A lake profile and monitoring site was established in the deepest site in Bending Lake where measurements and samples were collected (BEND1, BEND2 and BEND3). Site BGL1 is located at the northernmost reach of the watershed in West Hawk Lake and acts as a control site for the watershed with most mining features being located roughly 10 km downstream from the site. In 2011, samples were collected in West Hawk Lake, Page Lake, Bending Lake and near BGL5.

5.3 Sampling Frequency

The surface water monitoring program began in May 2017, with samples being collected quarterly during the open-water season, in May, August and October 2017 and in May 2018. Monthly sampling was attempted; however, the frequency of sample collection was largely influenced by accessibility on site. Accessibility issues on site were caused by road conditions, or inability to obtain a sample safely due to lake shore or marshland conditions (sinking hazards in marshlands).

The dataset includes four sampling events, which capture the seasonality (spring, summer and fall) of surface water quality within the RSA and LSA. Further sampling would strengthen the quantity and quality of data for more accurately characterizing the seasonal and annual variability of the parameters of interest.

5.4 Data Analyses

The surface water data compiled between May 2017 and May 2018 were compared to guidelines to identify exceedances. Summary statistics were calculated for all locations. The data collected in 2011 by Fladgate Exploration (2011) were compared to 2017 and 2018 data to discern and common or distinct patterns between the studies. This historical data is presented in **Appendix 6** for reference.

5.4.1 Summary Statistics

Seasonal summary statistics were calculated to characterize background water quality throughout the monitoring period (May 2017 to May 2018). Summary statistics included minimum, median, maximum, standard deviation and total sample count. Water quality summary statistics for each sample site are provided in **Appendix 7**.

Water quality data were grouped by watershed to increase sample sizes and to better present variability within the same drainage area. Due to the absence of winter data, analysis on seasonal variability does not include winter (November to April) water quality.

Site TC1 was excluded from summary statistics calculations for characterizing baseline conditions. TC1 is a reference site situated on Agimak Lake in Ignace, ON. The TC1 location is not included in within the regional study area watersheds and rather drains northwards, away from the project. The site is used as a reference site for general water quality parameters.

6 BASELINE WATER QUALITY RESULTS AND DISCUSSION

6.1 QA/QC Results

6.1.1 Field Duplicates

Duplicate samples generally demonstrated high precision, with only 8 measurements out of 300 (2.7%) exceeding the RPD of 20% with at least one of the duplicates exceeding a value of 5 times the MDL. Of note are two duplicates each that were flagged for cadmium and zinc, where RPDs exceeded 100%. Given that these two parameters also showed the highest number of dissolved concentrations exceeding total concentrations (Section 6.1.3), care should be taken when interpreting results for these two parameters.

6.1.2 Field Blanks

Most parameters were not detected in field blanks, indicating that most samples were not contaminated during field work. There were seven metals detections in the May 2018 field blank sample, indicating the possibility of a minor sample contamination, however, none of these metals exceeded guidelines in any of the field samples collected during that sampling trip, indicating that there was no impact on data interpretation.

6.1.3 Metals Analysis

Metals results were flagged when the laboratory-reported result for the dissolved fraction exceeded the total metal concentration by more than 30%. An overall total of 1.8% of samples met this criterion, indicating a very low frequency of disagreements between total and dissolved metal analyses. Most of these occurrences affected cadmium and zinc. For cadmium, dissolved results were substituted for total results where they were larger, to ensure that no guideline exceedance was missed. Zinc concentrations remained below or at guidelines and therefore no data adjustment was made since the discrepancies did not affect data interpretation.

6.1.4 QA/QC Summary

Overall, QA/QC data analysis indicated good precision and accuracy, indicating that the presented data for most parameters were reliable and representative for conditions during field sampling. An exception to that were cadmium and zinc results, where two out of four duplicate pairs did not meet QA/QC

standards and 16% to 25% of metals analyses did not meet QA/QC criteria. Results for these metals should therefore be interpreted with caution.

6.2 LSA Water Quality Assessment (Bending Lake Watershed)

6.2.1 Physical Parameters, Major Ions and Nutrients

Physical Parameters

Bending Lake waters are generally characterized as neutral to slightly acidic pH, very soft, with low to moderate buffering capacity. The pH was occasionally below the PWQO of 6.5. TDS values throughout the watershed ranged from 10 to 46 mg/L. Lowest levels were observed during spring and the highest values observed in summer. Increased TDS during the late summer months could be a result of high productivity in the waters and net evaporative conditions resulting in greater substance concentrations. TSS concentrations in lakes and creeks within the watershed were generally low (<2 mg/L), except for a May 2017 peak at BGL3 (17 mg/L) and a fall peak of 7 mg/L at BGL1, indicating local influences.

Water temperatures in Bending Lake and surrounding creeks varied seasonally throughout the monitoring period. In-situ measurements taken at the surface of Bending Lake showed temperatures between 8°C and 11°C during the 2017 spring months, while the average late summer 2017 and May 2018 lake surface temperatures were above 20°C due to seasonally elevated air temperature. Other monitoring sites within the watershed had similar water temperatures as the surface of Bending Lake. In-situ measurements taken at depth show a more consistent temperature ranging between 6°C and 10°C.

Major Ions

Concentrations of major ions were very low (most of chloride and fluoride < 1 mg/L, sulfate < 3 mg/L), consistent with low TDS, and orders of magnitude below guidelines. Seasonal trends for the major ions chloride and fluoride were generally showing slightly higher concentrations in spring compared to summer. Sulfate, on the contrary, was highest in summer and lowest in spring. The most prominent cation was calcium and the dominant anion was sulfate.

Nutrients

Median total Phosphorus (TP) concentrations in the Bending Lake watershed were low and ranged from 0.004 (BGL2) to 0.011 mg/L (BGL1 and BGL3). The trophic status of streams and lakes within the Bending Lake watershed was oligotrophic to mesotrophic, with most measurements falling with the oligotrophic category, as is typical for Canadian shield watersheds. TP concentrations within the profile of Bending Lake did not change significantly with depth, indicating well-mixed conditions and no internal P release from sediments. The highest phosphorus concentration was observed at West Hawk Lake (BGL1) in May 2018 with 0.025 mg/L.

Spatial trends in TP can be explained by similar spatial trends in dissolved organic carbon concentration (**Figure 6-1**). Lakes in headwaters (BGL1 and 3) are more influenced by terrestrial matter, thereby more enriched in DOC while sites further downstream in the watershed, such as Bending Lake, have lower DOC and TP concentrations. Since DOC in lakes on the Canadian Shield are often associated with colour that can limit photosynthesis and thus algal growth, it is likely that lakes with TP > 0.01 mg/L are still

oligotrophic with respect to aquatic productivity. Chlorophyll-a analyses would be required to test this hypothesis.

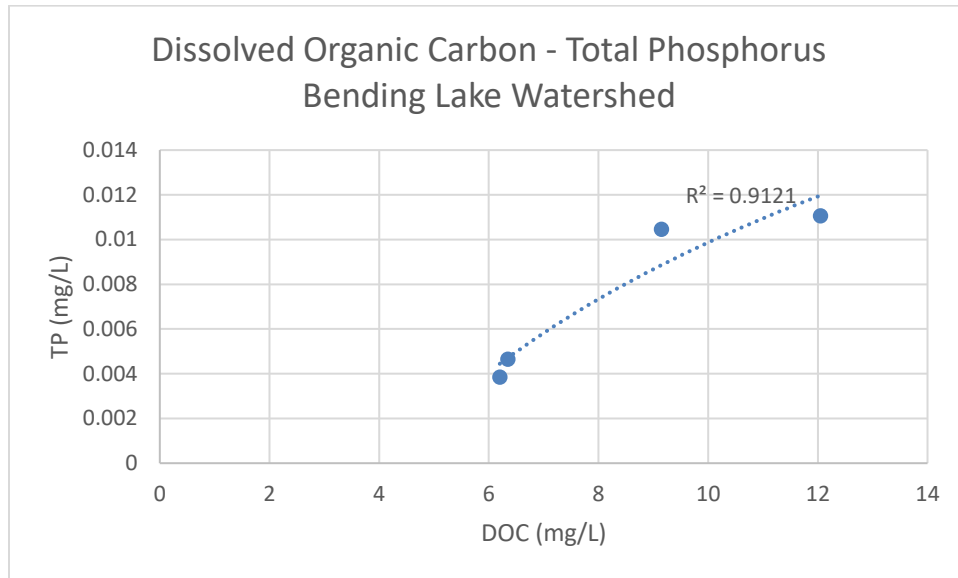


Figure 6-1: Relationship between Dissolved Organic Carbon and Total Phosphorus in Bending Lake Watershed

6.2.2 Metals and Metalloids

Aluminum (Al) met guidelines in all samples, except at West Hawk Lake (BGL1), where Al consistently exceeded the guideline (**Figure 6-2**) and in Bending Creek in 2011 (Appendix 6). Cadmium appears to be naturally elevated across most water bodies in the Bending Lake watershed (**Figure 6-3**). Iron maximum concentrations exceeded the guideline of 0.3 mg/L at M1, BGL 1 (West Hawk Lake), BGL 2 (Bending Lake), BGL3 (Bending Lake headwaters adjacent to the project site) and Bending Creek (Appendix 6), while the remaining samples were below guidelines (**Figure 6-3**). There are naturally iron-rich minerals associated with Bending Lake Iron Formation near the Ambershaw Project Site which are likely responsible for iron guideline exceedances (**Figure 6-4**). Maximum lead concentrations at BGL 2 and 3 exceeded Canadian guidelines, but remained below the PWQO, while all other samples remained below both guidelines (**Figure 6-5**).

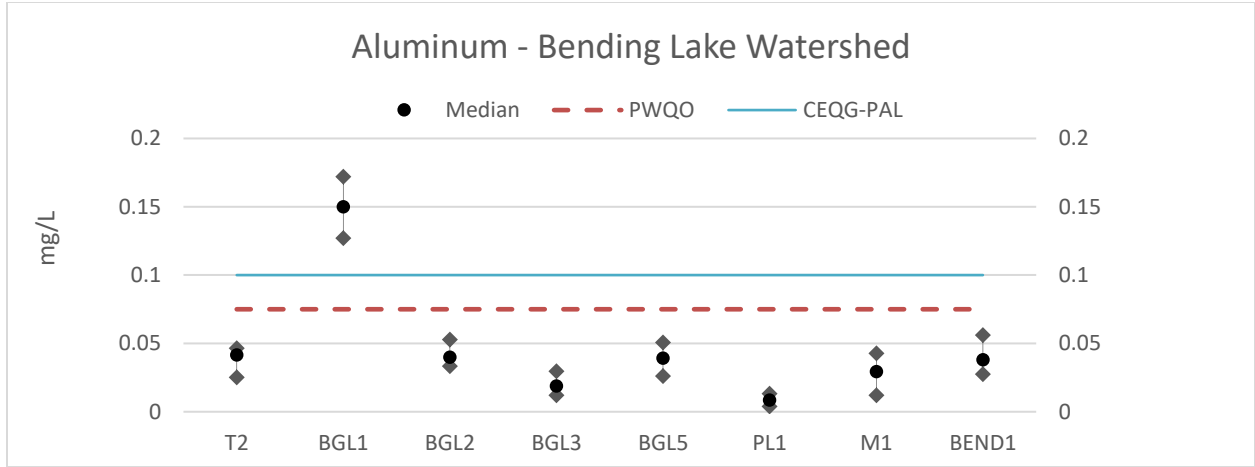


Figure 6-2: Aluminum in the Bending Lake Watershed 2017-2018

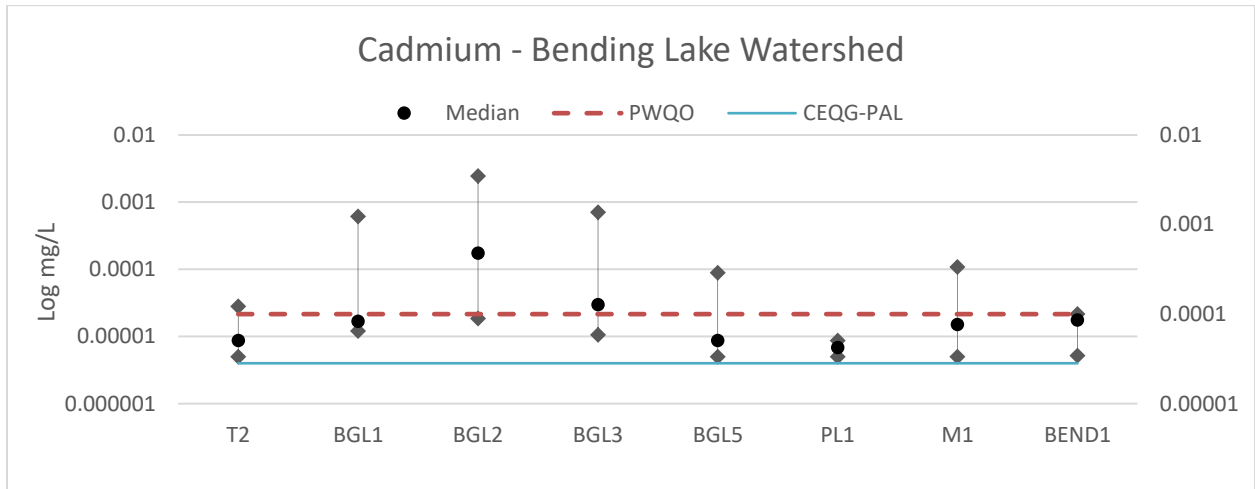


Figure 6-3: Cadmium in the Bending Lake Watershed 2017-2018

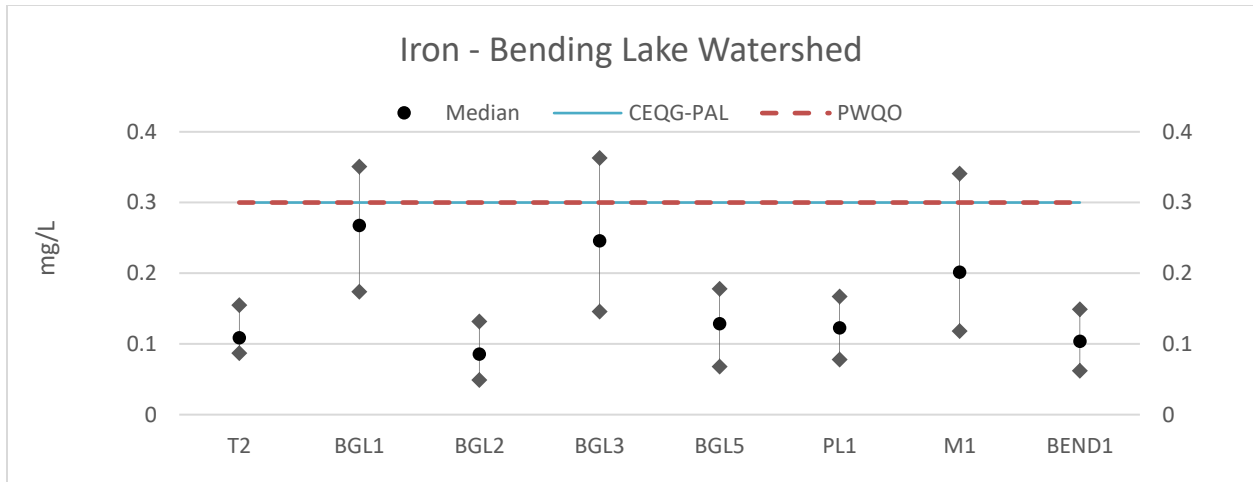


Figure 6-4: Iron in the Bending Lake Watershed 2017-2018

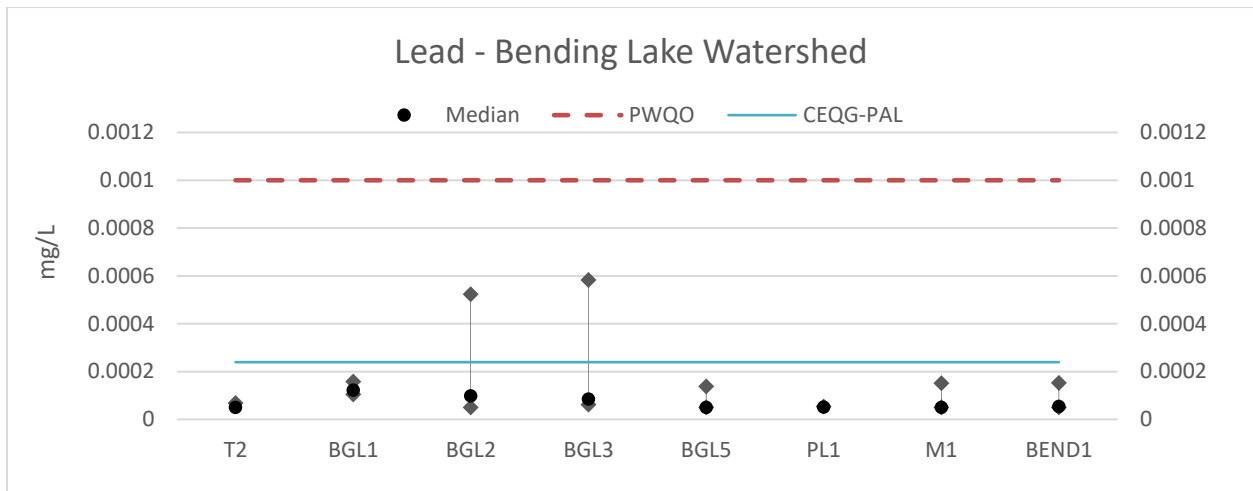


Figure 6-5: Lead in the Bending Lake Watershed 2017-2018

6.3 Regional Study Area (RSA): Wabigoon Lake Watershed

6.3.1 Physical Parameters, Major Ions and Nutrients

Physical Parameters

Physical parameters in lakes of the Wabigoon Lake watershed were very similar to those in the Bending Lake watershed. Water is neutral, very soft, with low to moderate buffering capacity. TDS concentrations were very similar to Bending Lake watershed as well, but more consistent throughout the watershed, with site medians around 50 mg/L, and with a similar tendency to higher values in summer and slightly lower values in spring. TSS values in lakes in this watershed were very low, with many values below detection, except at M4 where TSS was slightly higher (2-3 mg/L).

Major Ions

Major ion concentrations were very low across the Wabigoon Lake watershed, with chloride, bromide and fluoride levels below 1 mg/L and sulfate concentrations below 3 mg/L in most samples. Calcium was the predominant cation.

Nutrients

Total Phosphorus (TP) concentrations were very low in Stormy Lake (SL 3 and SL4, ca. 0.005 mg/L), indicative of oligotrophic status. TP was around 0.010 mg/L in the smaller water bodies further upstream in the watershed and closer to the Project site (SL5 and SL6). Equivalent to the Bending Lake watershed, the latter sites also displayed higher DOC concentrations around 10 mg/L opposed to 5-6 mg/L in Stormy Lake, again indicating the natural influence of organic matter on TP at these sites. TP concentrations were very similar between surface (0.005 mg/L) and bottom (0.006 mg/L) samples in Stormy Lake.

6.3.2 Metals and Metalloids

Aluminum and cadmium generally met the CEQG-PAL in the waterbodies of the Wabigoon watershed, except for one sample in each case. Iron concentrations met guidelines in most samples but exceeded the PWQO and CEQG-PAL consistently at SL6, the site closest to the Project area (**Figure 6-6**). The naturally iron-rich minerals associated with the Bending Lake Iron Formation near the Ambershaw Project site are likely responsible for iron-rich surface waters. There were no clear seasonal or spatial pattern in metals concentrations within the Wabigoon watershed.

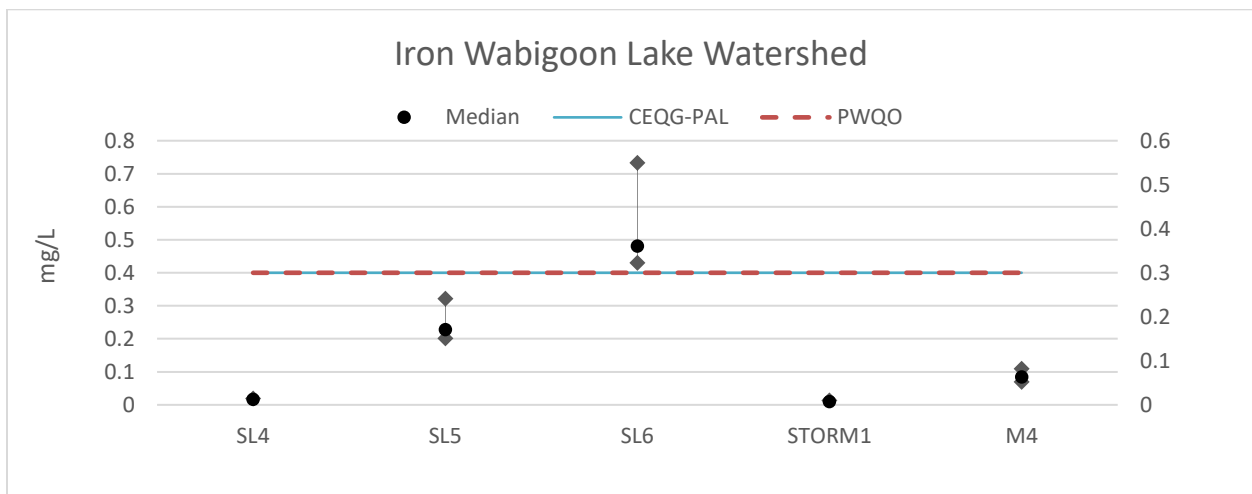


Figure 6-6: Iron in Wabigoon Watershed Lakes

6.4 Regional Study Area (RSA) (Wapageisi Lake Watershed)

6.4.1 Physical Parameters, Major Ions and Nutrients

Physical Parameters

Similar to the other watersheds, water bodies in the Wapageisi Lake watershed were of neutral to slightly acidic pH, very soft, with low to moderate buffering capacity. pH was occasionally below the PWQO of 6.5. TDS concentrations were low with site medians at approximately 20 mg/L in 2011 and 30 mg/L in 2017/2018. Spring levels were slightly lower than summer levels in the upper watershed (M2, M3), but did not show clear seasonal trends in the other sites. TSS levels within the watershed were low, except some spring peaks in 2017 at Wapageisi River (WL2, 7 mg/L) and Drum Lake (M2, 18 mg/L), possibly related to spring runoff.

Major Ions

The major ions within the Wapageisi Lake watershed were low, similar to the other watersheds. Ions did not show any clear seasonal or spatial patterns, although the two highest chloride levels in the watershed were measured at site M3. This site is located close to Highway 622 and therefore may be impacted by road salt. Calcium was the dominant cation in this watershed as well.

Nutrients

Total Phosphorus (TP) concentrations were low across the watershed and mainly below 0.01 mg/L, indicating oligotrophic status. An exception to that was Beak Lake (BEAK1, BL2) in May 2018, when TP concentrations were 0.01 and 0.013 mg/L, respectively. Profile TP in Beak Lake was variable in 2017, with higher TP at the surface and bottom compared to mid-water column, while in 2011, TP concentrations were fairly consistent across the water column in Beak Lake (Appendix 6).

6.4.2 Metals and Metalloids

Most metals met guidelines in all sites and samples in the Wapageisi River watershed. Exceptions to that were one sample each for aluminum and cadmium that exceeded guidelines at BL1, but at different dates and two copper samples that exceeded the guideline in 2011, one at SW-BK11-3L, located just east of BL1 and one in Beak Lake (Appendix 6). Iron met guidelines in all samples, except maximum values at M3 and BL1, which are the sites closest to the project area and therefore likely affected by the iron deposits.

No spatial or seasonal patterns in metals in the Wapageisi River watershed were evident from the available data.

6.5 Lake Profiles

Depth profiles of in-situ parameters have been recorded in Bending Lake, Stormy Lake and Beak Lake several times during the sampling period. Bending Lake was thermally stratified in August 2017 and May 2018, Stormy Lake was thermally stratified in August 2017 and May 2018, but not in June 2017. Beak Lake showed thermal stratification setting up close to the water surface in May 2018 and clear stratification in

August 2017. Bottom-water oxygen levels remained elevated in all lakes, indicating good cold-water fish habitat throughout the sampling period.

Oxygen maxima occurred either at the surface or near the thermocline, indicating that photosynthesizing phytoplankton concentrated in these locations, sometimes creating supersaturated oxygen levels (DO saturation >100%). The phenomenon of an oxygen peak near the thermocline (see example in **Figure 6-7**) is called the metalimnetic oxygen maximum, a common occurrence where a favorable combination of light and nutrient availability promotes algae growth where the cold and warm water layers meet.

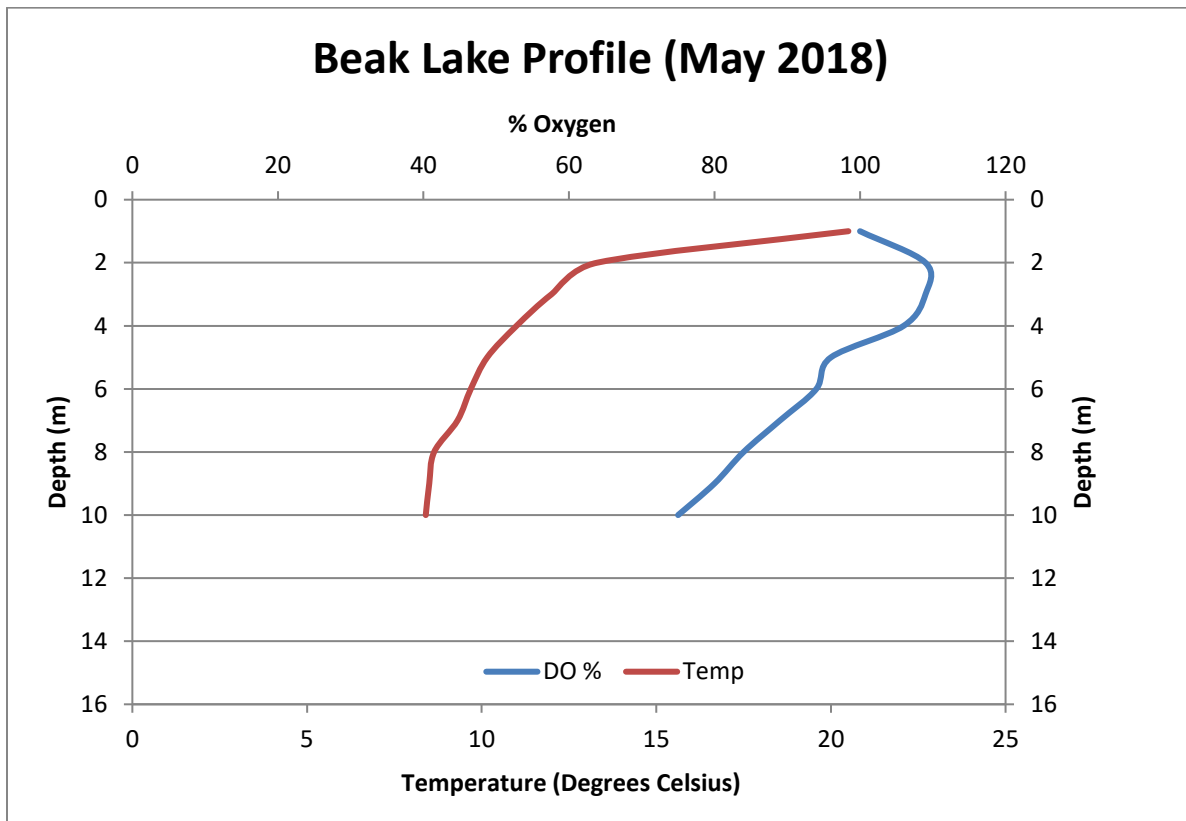


Figure 6-7: Oxygen and Temperature Profile in Beak Lake, May 2018

6.6 Conclusion

The key conclusions of the water quality baseline studies in lakes around the proposed Ambershaw Project site are as follows:

- 1) All water bodies in the study area have neutral to slightly acidic pH, are very soft, with low to moderate buffering.
- 2) There is a slight tendency for lower TDS and sulfate in spring and higher TDS and sulfate in summer in lakes around the study area, likely related to seasonal evaporation and dilute spring runoff.

- 3) Major ions are very low in all water bodies, orders of magnitude below guidelines. Dominant ions are calcium and sulphate, and local chloride peaks were observed at a site close to the highway and often occurred in spring.
- 4) Nutrient status of the lakes was oligotrophic to mesotrophic, based on TP. TP was closely related to DOC, where headwater lakes were richer in TP and DOC than lakes further downstream in the watershed.
- 5) Metals generally meet guidelines, except for a few sites near the project site that consistently exceeded iron and cadmium guidelines, which is likely a natural occurrence associated with the Bending Lake Iron Formation. There were also a few occasional exceedances of total lead federal guidelines at sites near the project, but concentrations remained below the provincial objectives.
- 6) Lake profiles of oxygen and temperature in larger lakes (Stormy, Bending, Beak) showed thermal stratification but very good oxygen levels in the hypolimnion, indicating good fish habitat during the sampling period.
- 7) QA/QC analysis indicated overall very good data precision and accuracy for most parameters, except for cadmium and zinc, where unsatisfactory duplicate and dissolved-versus-total metals analyses indicated that their results should be interpreted with caution.

In summary, the lakes in the study region are typical dilute, low productivity lakes of the Canadian Shield ecoregion, with water quality variations related to seasonal variations in hydrology, local bedrock geology and position of lakes in the watershed.

7 PROPOSED MONITORING AND MITIGATION PROGRAM

Additional surface water quality monitoring stations should be added to a small drainage feature located in the wetland area north of the proposed Project facilities (**Figure 5-1**). This drainage feature ultimately discharges into Bending Lake north of the BGL3 site and is likely the nearest receiving body for the pit dewatering discharge. Another potential location for water quality monitoring is Bending Creek north of its outlet point into Bending Lake, similar to the SW-BC11-1C DST sampling site, and the Unnamed tributary to the southeast of SW-BC11-1C, to complement the Hydrology program's hydrometric station (**Figure 5-1**; Refer to Ambershaw Project Site Hydrological Baseline Data Report: Advanced Exploration Permit for further detail). It would also be beneficial to sample the outlet of Page Creek into Bending Lake, close to the DST site SW-BL 11-2C (**Figure 5-1**). This would allow comparison of downstream data to the upstream extent of Page Creek at PL1 during bulk sampling activities. During bulk sampling activities, it is recommended that treated water will be sampled daily during discharge at the Project site, and weekly both upstream and downstream of the Project site. These locations would include SL5, PL1, BGL3, and recommended sites in the wetland north of the Project facilities and at SW-BL 11-2C (**Figure 5-1**).

The surface water quality program will be revisited to continue to establish long-term conditions if the bulk sample program yields indication of exceedances of permitted requirements. In this event, it is recommended that monthly monitoring be completed to further understand spatial, seasonal and temporal trends in water quality data.

Based on the proposed Project facility layout for the bulk sample, no effects are anticipated to occur as a result of bulk sampling and thus no surface water quality specific mitigation measures are recommended at this time.

8 CERTIFICATION

This report was prepared, reviewed and approved by the undersigned:

**Prepared and
Reviewed By:**

May Mason, M.Sc., R.P.Bio.
Vice President, Water Quality Specialist

Reviewed By:

Andrea Buckman, Ph.D., R.P.Bio.
Senior Aquatic Toxicologist

Approved By:

Rob Frizzell, M.Sc., P. Geo.
Vice President

9 REFERENCES

BC Ministry of Environment. 2016. Province of British Columbia, Ministry of Environment. 2016. Water and Air Baseline Monitoring Guidance Document for Mine Proponents and Operators.

BC Ministry of Environment, Lands and Parks, Water Quality Branch, 1997. Lake and Stream Bottom Sediment Sampling Manual.

Blackburn C.E., Johns G.W., Ayer J., and Davis D.W. 1991:
Wabigoon subprovince, *in: Geology of Ontario*. Ontario Geological Survey. Special Volume 4, Part 1. p303-381.

Canadian Council of Minister of the Environment. 2011. Protocols Manual for Water Quality Sampling in Canada, PN 1461, ISBN 978-1-896997-7-0.

Conservation Ontario, 2003. Conservation Ontario Discussion Paper: Recommendations for Monitoring Ontario's Water Quality.

Fladgate Exploration Consulting Corporation. 2011: Independent Technical Report, Resource Estimate, Bending Lake Property. Prepared for: Bending Lake Iron Group Ltd. No. NI 43-101.

Palmer Environmental Consulting Group Inc. 2019. Ambershaw Project Site Hydrological Baseline Data Report: Advanced Exploration Permit. Prepared for Ambershaw Metallics Inc.

RWDI. 2017. Air Quality Assessment #1701998. AMI Project Environmental Baseline Services. RWDI Air Inc. Consulting Engineers and Scientists.

Appendix 1

Laboratory Certificates of Analysis (CoA) and Chains of Custody (CoC)



PALMER ENVIRONMENTAL CONSULTING
GROUP INC. TORONTO
ATTN: Jake McQueen
374 Wellington Street West
Suite 3
Toronto ON M5V 1E3

Date Received: 01-JUN-17
Report Date: 20-JUN-17 14:37 (MT)
Version: FINAL

Client Phone: 647-795-8153

Certificate of Analysis

Lab Work Order #: L1935823
Project P.O. #: NOT SUBMITTED
Job Reference: AMBERSHAW MINING PROJECT
C of C Numbers:
Legal Site Desc:

<Original signed by>

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-1 ML1 Sampled By: JMQ on 31-MAY-17 @ 18:06 Matrix: Water							
Physical Tests							
Conductivity (EC)	19.0		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	7.24		0.50	mg/L		12-JUN-17	
pH	7.13		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	1.3		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	25		10	mg/L		07-JUN-17	R3743063
Anions and Nutrients							
Acidity (as CaCO3)	2.1		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	6.6		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		08-JUN-17	R3743569
Bromide (Br)	<0.10		0.10	mg/L		06-JUN-17	R3741180
Chloride (Cl)	0.21		0.10	mg/L		06-JUN-17	R3741180
Fluoride (F)	0.024		0.020	mg/L		06-JUN-17	R3741180
Nitrate (as N)	<0.020		0.020	mg/L		06-JUN-17	R3741180
Nitrite (as N)	<0.010		0.010	mg/L		06-JUN-17	R3741180
Total Kjeldahl Nitrogen	0.30		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.30		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0075		0.0030	mg/L	07-JUN-17	08-JUN-17	R3742917
Sulfate (SO4)	1.38		0.30	mg/L		06-JUN-17	R3741180
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	8.2		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	8.2		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0428		0.0030	mg/L	05-JUN-17	07-JUN-17	R3743158
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Arsenic (As)-Total	0.00023		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Barium (Ba)-Total	0.00548		0.000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Boron (B)-Total	<0.010		0.010	mg/L	05-JUN-17	07-JUN-17	R3743158
Cadmium (Cd)-Total	0.000108		0.0000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Calcium (Ca)-Total	1.88		0.050	mg/L	05-JUN-17	07-JUN-17	R3743158
Cesium (Cs)-Total	0.000017		0.000010	mg/L	05-JUN-17	07-JUN-17	R3743158
Chromium (Cr)-Total	0.00029		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Copper (Cu)-Total	0.00074		0.00050	mg/L	05-JUN-17	07-JUN-17	R3743158
Iron (Fe)-Total	0.120		0.010	mg/L	05-JUN-17	07-JUN-17	R3743158
Lead (Pb)-Total	0.000151		0.000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Lithium (Li)-Total	<0.0010		0.0010	mg/L	05-JUN-17	07-JUN-17	R3743158
Magnesium (Mg)-Total	0.602		0.0050	mg/L	05-JUN-17	07-JUN-17	R3743158
Manganese (Mn)-Total	0.0111		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-1 ML1							
Sampled By: JMQ on 31-MAY-17 @ 18:06							
Matrix: Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	05-JUN-17	07-JUN-17	R3743158
Phosphorus (P)-Total	<0.050		0.050	mg/L	05-JUN-17	07-JUN-17	R3743158
Potassium (K)-Total	0.450		0.050	mg/L	05-JUN-17	07-JUN-17	R3743158
Rubidium (Rb)-Total	0.00158		0.00020	mg/L	05-JUN-17	07-JUN-17	R3743158
Selenium (Se)-Total	0.000065		0.000050	mg/L	05-JUN-17	07-JUN-17	R3743158
Silicon (Si)-Total	1.41		0.10	mg/L	05-JUN-17	07-JUN-17	R3743158
Silver (Ag)-Total	<0.000010		0.000010	mg/L	05-JUN-17	07-JUN-17	R3743158
Sodium (Na)-Total	0.758		0.050	mg/L	05-JUN-17	07-JUN-17	R3743158
Strontium (Sr)-Total	0.00840		0.00020	mg/L	05-JUN-17	07-JUN-17	R3743158
Sulfur (S)-Total	<0.50		0.50	mg/L	05-JUN-17	07-JUN-17	R3743158
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	05-JUN-17	07-JUN-17	R3743158
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	05-JUN-17	07-JUN-17	R3743158
Thorium (Th)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Tin (Sn)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Titanium (Ti)-Total	0.00041		0.00030	mg/L	05-JUN-17	07-JUN-17	R3743158
Tungsten (W)-Total	<0.00010		0.00010	mg/L	05-JUN-17	07-JUN-17	R3743158
Uranium (U)-Total	0.000025		0.000010	mg/L	05-JUN-17	07-JUN-17	R3743158
Vanadium (V)-Total	<0.00050		0.00050	mg/L	05-JUN-17	07-JUN-17	R3743158
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	05-JUN-17	07-JUN-17	R3743158
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	05-JUN-17	07-JUN-17	R3743158
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					09-JUN-17	R3744037
Aluminum (Al)-Dissolved	0.0267		0.0020	mg/L	09-JUN-17	10-JUN-17	R3744350
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Barium (Ba)-Dissolved	0.00490		0.000050	mg/L	09-JUN-17	10-JUN-17	R3744350
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	09-JUN-17	10-JUN-17	R3744350
Boron (B)-Dissolved	<0.010		0.010	mg/L	09-JUN-17	10-JUN-17	R3744350
Cadmium (Cd)-Dissolved	0.0000378		0.0000050	mg/L	09-JUN-17	10-JUN-17	R3744350
Calcium (Ca)-Dissolved	1.87		0.050	mg/L	09-JUN-17	10-JUN-17	R3744350
Cesium (Cs)-Dissolved	0.000018		0.000010	mg/L	09-JUN-17	10-JUN-17	R3744350
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Copper (Cu)-Dissolved	0.00057		0.00020	mg/L	09-JUN-17	10-JUN-17	R3744350
Iron (Fe)-Dissolved	0.055		0.010	mg/L	09-JUN-17	10-JUN-17	R3744350
Lead (Pb)-Dissolved	0.000054		0.000050	mg/L	09-JUN-17	10-JUN-17	R3744350
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	09-JUN-17	10-JUN-17	R3744350

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-1 ML1 Sampled By: JMQ on 31-MAY-17 @ 18:06 Matrix: Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.624		0.0050	mg/L	09-JUN-17	10-JUN-17	R3744350
Manganese (Mn)-Dissolved	0.00154		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	09-JUN-17	11-JUN-17	R3744999
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	09-JUN-17	10-JUN-17	R3744350
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	09-JUN-17	10-JUN-17	R3744350
Potassium (K)-Dissolved	0.507		0.050	mg/L	09-JUN-17	10-JUN-17	R3744350
Rubidium (Rb)-Dissolved	0.00149		0.00020	mg/L	09-JUN-17	10-JUN-17	R3744350
Selenium (Se)-Dissolved	0.000086		0.000050	mg/L	09-JUN-17	10-JUN-17	R3744350
Silicon (Si)-Dissolved	1.41		0.050	mg/L	09-JUN-17	10-JUN-17	R3744350
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	09-JUN-17	10-JUN-17	R3744350
Sodium (Na)-Dissolved	0.844		0.050	mg/L	09-JUN-17	10-JUN-17	R3744350
Strontium (Sr)-Dissolved	0.00822		0.00020	mg/L	09-JUN-17	10-JUN-17	R3744350
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	09-JUN-17	10-JUN-17	R3744350
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	09-JUN-17	10-JUN-17	R3744350
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	09-JUN-17	10-JUN-17	R3744350
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	09-JUN-17	10-JUN-17	R3744350
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	09-JUN-17	10-JUN-17	R3744350
Uranium (U)-Dissolved	0.000022		0.000010	mg/L	09-JUN-17	10-JUN-17	R3744350
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	09-JUN-17	10-JUN-17	R3744350
Zinc (Zn)-Dissolved	0.0039		0.0010	mg/L	09-JUN-17	10-JUN-17	R3744350
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	09-JUN-17	10-JUN-17	R3744350
L1935823-2 ML2 Sampled By: JMQ on 31-MAY-17 @ 17:41 Matrix: Water							
Physical Tests							
Conductivity (EC)	23.6		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	9.48		0.50	mg/L		10-JUN-17	
pH	6.95		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	17.7		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	29		10	mg/L		06-JUN-17	R3741967
Anions and Nutrients							
Acidity (as CaCO3)	3.1		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	9.8		2.0	mg/L		04-JUN-17	R3739794
Ammonia, Total (as N)	0.130		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.16		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-2 ML2 Sampled By: JMQ on 31-MAY-17 @ 17:41 Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.36		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.36		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	0.0041		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0080		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	0.84		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	8.3		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	8.6		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0267		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Arsenic (As)-Total	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Barium (Ba)-Total	0.00782		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Boron (B)-Total	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Calcium (Ca)-Total	2.96		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Cesium (Cs)-Total	0.000023		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Chromium (Cr)-Total	0.00021		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Copper (Cu)-Total	0.00210		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Iron (Fe)-Total	0.216		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Lead (Pb)-Total	0.000126		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Lithium (Li)-Total	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740427
Magnesium (Mg)-Total	0.590		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740427
Manganese (Mn)-Total	0.00907		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Phosphorus (P)-Total	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Potassium (K)-Total	0.768		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Rubidium (Rb)-Total	0.00199		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Selenium (Se)-Total	0.000066		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Silicon (Si)-Total	0.99		0.10	mg/L	04-JUN-17	05-JUN-17	R3740427
Silver (Ag)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Sodium (Na)-Total	0.715		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Strontium (Sr)-Total	0.0105		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Sulfur (S)-Total	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740427
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-2 ML2							
Sampled By: JMQ on 31-MAY-17 @ 17:41							
Matrix: Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Thorium (Th)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Tin (Sn)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Titanium (Ti)-Total	0.00056		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740427
Tungsten (W)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Uranium (U)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Vanadium (V)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Zinc (Zn)-Total	0.0044		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740427
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					06-JUN-17	R3740800
Aluminum (Al)-Dissolved	0.0155		0.0020	mg/L	06-JUN-17	09-JUN-17	R3744209
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Barium (Ba)-Dissolved	0.00716		0.000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Boron (B)-Dissolved	<0.010		0.010	mg/L	06-JUN-17	09-JUN-17	R3744209
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Calcium (Ca)-Dissolved	2.93		0.050	mg/L	06-JUN-17	09-JUN-17	R3744209
Cesium (Cs)-Dissolved	0.000022		0.000010	mg/L	06-JUN-17	09-JUN-17	R3744209
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Copper (Cu)-Dissolved	0.00041		0.00020	mg/L	06-JUN-17	09-JUN-17	R3744209
Iron (Fe)-Dissolved	0.130		0.010	mg/L	06-JUN-17	09-JUN-17	R3744209
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	06-JUN-17	09-JUN-17	R3744209
Magnesium (Mg)-Dissolved	0.524		0.0050	mg/L	06-JUN-17	09-JUN-17	R3744209
Manganese (Mn)-Dissolved	0.00294		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	06-JUN-17	09-JUN-17	R3744209
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	06-JUN-17	09-JUN-17	R3744209
Potassium (K)-Dissolved	0.759		0.050	mg/L	06-JUN-17	09-JUN-17	R3744209
Rubidium (Rb)-Dissolved	0.00207		0.00020	mg/L	06-JUN-17	09-JUN-17	R3744209
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	06-JUN-17	09-JUN-17	R3744209
Silicon (Si)-Dissolved	0.884		0.050	mg/L	06-JUN-17	09-JUN-17	R3744209
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	06-JUN-17	09-JUN-17	R3744209
Sodium (Na)-Dissolved	0.708		0.050	mg/L	06-JUN-17	09-JUN-17	R3744209
Strontium (Sr)-Dissolved	0.0101		0.00020	mg/L	06-JUN-17	09-JUN-17	R3744209

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-2 ML2 Sampled By: JMQ on 31-MAY-17 @ 17:41 Matrix: Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	06-JUN-17	09-JUN-17	R3744209
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	06-JUN-17	09-JUN-17	R3744209
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	06-JUN-17	09-JUN-17	R3744209
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	06-JUN-17	09-JUN-17	R3744209
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	06-JUN-17	09-JUN-17	R3744209
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	06-JUN-17	09-JUN-17	R3744209
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	06-JUN-17	09-JUN-17	R3744209
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	06-JUN-17	09-JUN-17	R3744209
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	06-JUN-17	09-JUN-17	R3744209
L1935823-3 BGL5 Sampled By: JMQ on 31-MAY-17 @ 15:15 Matrix: Water							
Physical Tests							
Conductivity (EC)	23.6		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	8.80		0.50	mg/L		06-JUN-17	
pH	7.30		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	25		10	mg/L		06-JUN-17	R3741967
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	8.4		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.32		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.035		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0032		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.85		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	5.7		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	5.9		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0401		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Arsenic (As)-Total	0.00021		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-3 BGL5 Sampled By: JMQ on 31-MAY-17 @ 15:15 Matrix: Water							
Total Metals							
Barium (Ba)-Total	0.00416		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Boron (B)-Total	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Calcium (Ca)-Total	2.56		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Cesium (Cs)-Total	0.000014		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Chromium (Cr)-Total	0.00022		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Copper (Cu)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Iron (Fe)-Total	0.090		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Lead (Pb)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Lithium (Li)-Total	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740427
Magnesium (Mg)-Total	0.635		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740427
Manganese (Mn)-Total	0.00510		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000071		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Phosphorus (P)-Total	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Potassium (K)-Total	0.436		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Rubidium (Rb)-Total	0.00122		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Selenium (Se)-Total	0.000088		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Silicon (Si)-Total	1.70		0.10	mg/L	04-JUN-17	05-JUN-17	R3740427
Silver (Ag)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Sodium (Na)-Total	0.919		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Strontium (Sr)-Total	0.0119		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Sulfur (S)-Total	0.69		0.50	mg/L	04-JUN-17	05-JUN-17	R3740427
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Thorium (Th)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Tin (Sn)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Titanium (Ti)-Total	0.00043		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740427
Tungsten (W)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Uranium (U)-Total	0.000070		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Vanadium (V)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740427
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0287		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-3 BGL5 Sampled By: JMQ on 31-MAY-17 @ 15:15 Matrix: Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00400		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.52		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00038		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.044		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.611		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00085		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000066		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.429		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00120		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000082		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.61		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.971		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0107		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000065		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0021		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-4 BGL3 Sampled By: JMQ on 31-MAY-17 @ 14:01 Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-4 BGL3 Sampled By: JMQ on 31-MAY-17 @ 14:01 Matrix: Water							
Physical Tests							
Conductivity (EC)	46.1		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	18.8		0.50	mg/L		07-JUN-17	
pH	7.40		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	16.7		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	39		10	mg/L		06-JUN-17	R3741967
Anions and Nutrients							
Acidity (as CaCO3)	2.6		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	20.8		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	0.021		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.16		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.028		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	0.28		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.28		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0101		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	2.37		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	7.1		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	7.4		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0164		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Arsenic (As)-Total	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Barium (Ba)-Total	0.0107		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Boron (B)-Total	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cadmium (Cd)-Total	0.0000106		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Calcium (Ca)-Total	6.46		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Chromium (Cr)-Total	0.00017		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Copper (Cu)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Iron (Fe)-Total	0.207		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Lead (Pb)-Total	0.000062		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Lithium (Li)-Total	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740427
Magnesium (Mg)-Total	0.759		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740427
Manganese (Mn)-Total	0.0227		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-4 BGL3 Sampled By: JMQ on 31-MAY-17 @ 14:01 Matrix: Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000054		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Phosphorus (P)-Total	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Potassium (K)-Total	1.21		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Rubidium (Rb)-Total	0.00152		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Selenium (Se)-Total	0.000085		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Silicon (Si)-Total	0.82		0.10	mg/L	04-JUN-17	05-JUN-17	R3740427
Silver (Ag)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Sodium (Na)-Total	0.951		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Strontium (Sr)-Total	0.0168		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Sulfur (S)-Total	0.78		0.50	mg/L	04-JUN-17	05-JUN-17	R3740427
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Thorium (Th)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Tin (Sn)-Total	0.00040		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Titanium (Ti)-Total	0.00046		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740427
Tungsten (W)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Uranium (U)-Total	0.000019		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Vanadium (V)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740427
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0083		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.0102		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000268	DTC	0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	6.32		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00038		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.109		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-4 BGL3 Sampled By: JMQ on 31-MAY-17 @ 14:01 Matrix: Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.736		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00956		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000053		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	1.18		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	0.811		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	1.01		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0153		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	0.68		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000018		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-5 TC2 Sampled By: JMQ on 01-JUN-17 @ 09:30 Matrix: Water							
Physical Tests							
Conductivity (EC)	23.5		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	8.49		0.50	mg/L		06-JUN-17	
pH	6.99		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	1.1		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	29		10	mg/L		06-JUN-17	R3741967
Anions and Nutrients							
Acidity (as CaCO3)	3.6		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	8.1		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.30		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.034		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-5 TC2 Sampled By: JMQ on 01-JUN-17 @ 09:30 Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0050		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.70		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	6.0		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	5.7		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0391		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Arsenic (As)-Total	0.00022		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Barium (Ba)-Total	0.00405		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Boron (B)-Total	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Calcium (Ca)-Total	2.49		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Cesium (Cs)-Total	0.000015		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Chromium (Cr)-Total	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Copper (Cu)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Iron (Fe)-Total	0.087		0.010	mg/L	04-JUN-17	05-JUN-17	R3740427
Lead (Pb)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Lithium (Li)-Total	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740427
Magnesium (Mg)-Total	0.627		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740427
Manganese (Mn)-Total	0.00472		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000062		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Phosphorus (P)-Total	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Potassium (K)-Total	0.429		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Rubidium (Rb)-Total	0.00124		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Selenium (Se)-Total	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740427
Silicon (Si)-Total	1.56		0.10	mg/L	04-JUN-17	05-JUN-17	R3740427
Silver (Ag)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Sodium (Na)-Total	0.932		0.050	mg/L	04-JUN-17	05-JUN-17	R3740427
Strontium (Sr)-Total	0.0119		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427
Sulfur (S)-Total	0.62		0.50	mg/L	04-JUN-17	05-JUN-17	R3740427
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740427

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-5 TC2							
Sampled By: JMQ on 01-JUN-17 @ 09:30							
Matrix: Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Thorium (Th)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Tin (Sn)-Total	0.00042		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Titanium (Ti)-Total	0.00045		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740427
Tungsten (W)-Total	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740427
Uranium (U)-Total	0.000079		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740427
Vanadium (V)-Total	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740427
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	04-JUN-17	05-JUN-17	R3740427
Zirconium (Zr)-Total	0.000065		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740427
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0259		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00017		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00398		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.41		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00028		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.041		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.600		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00090		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000051		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.414		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00127		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000053		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.57		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.962		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0107		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-5 TC2 Sampled By: JMQ on 01-JUN-17 @ 09:30 Matrix: Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000074		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-6 M4 Sampled By: JMQ on 01-JUN-17 @ 10:30 Matrix: Water							
Physical Tests							
Conductivity (EC)	55.3		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	25.3		0.50	mg/L		10-JUN-17	
pH	7.50		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	1.2		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	39		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.3		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	27.4		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.12		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	0.49		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.49		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0083		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	0.43		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	11.1		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	11.4		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0310		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00022		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-6 M4							
Sampled By: JMQ on 01-JUN-17 @ 10:30							
Matrix: Water							
Total Metals							
Barium (Ba)-Total	0.00994		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	9.62		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00024		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	0.00063		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.070		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.802		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.0111		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	1.03		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00192		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000085		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	0.33		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	0.699		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0191		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	0.000012		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000066		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0270		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-6 M4 Sampled By: JMQ on 01-JUN-17 @ 10:30 Matrix: Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00895		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	8.76		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.047		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.844		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00147		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	1.06		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00195		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000060		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	0.322		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.766		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0156		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-7 SL6 Sampled By: JMQ on 01-JUN-17 @ 11:15 Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-7 SL6 Sampled By: JMQ on 01-JUN-17 @ 11:15 Matrix: Water							
Physical Tests							
Conductivity (EC)	62.6		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	23.0		0.50	mg/L		10-JUN-17	
pH	7.42		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	38		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.3		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	22.9		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	0.023		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	3.45		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.021		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	0.022		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	0.27		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.29		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0074		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	2.36		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	8.6		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	8.2		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0213		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00018		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.0119		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	7.92		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00018		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	0.00066		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.483		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.730		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.0233		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-7 SL6							
Sampled By: JMQ on 01-JUN-17 @ 11:15							
Matrix: Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000111		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	1.20		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00184		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.99		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	2.26		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0199		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	0.70		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00042		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000017		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000075		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0231		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.0114		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	7.93		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00014		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00064		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.449		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-7 SL6 Sampled By: JMQ on 01-JUN-17 @ 11:15 Matrix: Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.780		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.0249		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	1.25		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00190		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	2.19		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	2.47		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0182		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	0.82		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	0.00038		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	0.000084		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-8 SL5 Sampled By: JMQ on 01-JUN-17 @ 12:30 Matrix: Water							
Physical Tests							
Conductivity (EC)	66.9		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	25.3		0.50	mg/L		10-JUN-17	
pH	7.23		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	1.6		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	46		13	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	4.7		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	21.6		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	1.25		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.036		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	0.022		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-8 SL5							
Sampled By: JMQ on 01-JUN-17 @ 12:30							
Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.27		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.29		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0079		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	7.90		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	9.6		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	9.1		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.273		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00020		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.0113		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.000062		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	8.61		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000025		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00031		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	0.00061		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	0.00148		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.252		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	1.00		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.0550		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000051		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	0.00166		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	1.34		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00201		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000060		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	3.58		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	1.64		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0239		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	2.61		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-8 SL5							
Sampled By: JMQ on 01-JUN-17 @ 12:30							
Matrix: Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00040		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000031		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	0.0046		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.170		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.0103		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000054		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	8.33		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000025		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	0.00055		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00138		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.155		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	1.10		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.0514		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	0.00153		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	1.43		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00198		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000053		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	3.88		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	1.90		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0220		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-8 SL5 Sampled By: JMQ on 01-JUN-17 @ 12:30 Matrix: Water							
Dissolved Metals							
Sulfur (S)-Dissolved	2.54		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000024		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0047		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-9 BGL1 Sampled By: JMQ on 01-JUN-17 @ 14:30 Matrix: Water							
Physical Tests							
Conductivity (EC)	20.5		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	5.25		0.50	mg/L		12-JUN-17	
pH	7.07		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	26		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.2		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	3.2		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	1.81		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.035		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0071		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	0.97		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	10.7		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	10.4		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.149		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00029		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-9 BGL1							
Sampled By: JMQ on 01-JUN-17 @ 14:30							
Matrix: Water							
Total Metals							
Barium (Ba)-Total	0.00481		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000121		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	1.32		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000014		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00033		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.300		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	0.000109		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.404		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.0104		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.342		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00115		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000083		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.46		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	1.73		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.00866		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00107		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000051		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000131		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.137		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-9 BGL1 Sampled By: JMQ on 01-JUN-17 @ 14:30 Matrix: Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00028		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00481		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000097		0.000050	mg/L	04-JUN-17	11-JUN-17	R3744999
Calcium (Ca)-Dissolved	1.41		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000015		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00019		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00036		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.230		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	0.000083		0.000050	mg/L	04-JUN-17	11-JUN-17	R3744999
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.423		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00987		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.000050		0.000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.351		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00114		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000074		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.48		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	1.89		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.00844		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	0.00091		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000051		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0047		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	0.000170		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-10 TC1 Sampled By: JMQ on 01-JUN-17 @ 16:30 Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-10 TC1							
Sampled By: JMQ on 01-JUN-17 @ 16:30							
Matrix: Water							
Physical Tests							
Conductivity (EC)	26.1		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	7.26		0.50	mg/L		10-JUN-17	
pH	7.12		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	5.7		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	24		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.2		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	5.5		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	2.38		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.027		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	<0.020		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661
Total Kjeldahl Nitrogen	0.44		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	0.44		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0098		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.10		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	9.4		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	9.4		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0619		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00025		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.00396		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000149		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	2.03		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00024		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.300		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	0.000126		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.496		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00624		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-10 TC1							
Sampled By: JMQ on 01-JUN-17 @ 16:30							
Matrix: Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.297		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00094		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000059		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.72		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	1.83		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.00967		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	0.00011		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00091		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000083		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000086		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0613		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00025		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00372		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000059		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.00		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00030		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00031		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.232		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	0.000097		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-10 TC1 Sampled By: JMQ on 01-JUN-17 @ 16:30 Matrix: Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.551		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00556		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.317		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00094		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000073		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.91		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	2.04		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.00854		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	0.00011		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	0.00063		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000082		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0011		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	0.000105		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-11 BGL2 Sampled By: JMQ on 01-JUN-17 @ 10:45 Matrix: Water							
Physical Tests							
Conductivity (EC)	24.6		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	8.95		0.50	mg/L		10-JUN-17	
pH	7.21		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	22		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	2.9		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	7.3		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		04-JUN-17	R3739661
Chloride (Cl)	0.32		0.10	mg/L		04-JUN-17	R3739661
Fluoride (F)	0.035		0.020	mg/L		04-JUN-17	R3739661
Nitrate (as N)	0.034		0.020	mg/L		04-JUN-17	R3739661
Nitrite (as N)	<0.010		0.010	mg/L		04-JUN-17	R3739661

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-11 BGL2 Sampled By: JMQ on 01-JUN-17 @ 10:45 Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0036		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.81		0.30	mg/L		04-JUN-17	R3739661
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	6.1		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	6.1		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0403		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00021		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.00448		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000185		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	2.77		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000014		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00017		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.078		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.571		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00493		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000077		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.418		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00122		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000064		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.56		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	0.909		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0125		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-11 BGL2							
Sampled By: JMQ on 01-JUN-17 @ 10:45							
Matrix: Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00034		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000062		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000061		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0210		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00011		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00293		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000178		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.95		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.026		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.383		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00100		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000070		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.279		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00083		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.68		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.614		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-11 BGL2 Sampled By: JMQ on 01-JUN-17 @ 10:45 Matrix: Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000054		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0013		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-12 BENDING LAKE 1 Sampled By: JMQ on 01-JUN-17 @ 09:01 Matrix: Water							
Physical Tests							
Conductivity (EC)	24.2		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	8.56		0.50	mg/L		10-JUN-17	
pH	7.31		0.10	pH		04-JUN-17	R3739794
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	18		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	2.5		2.0	mg/L		06-JUN-17	R3741347
Alkalinity, Total (as CaCO3)	8.7		2.0	mg/L		04-JUN-17	R3739794
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		05-JUN-17	R3740396
Chloride (Cl)	0.47		0.10	mg/L		05-JUN-17	R3740396
Fluoride (F)	0.039		0.020	mg/L		05-JUN-17	R3740396
Nitrate (as N)	<0.020		0.020	mg/L		05-JUN-17	R3740396
Nitrite (as N)	<0.010		0.010	mg/L		05-JUN-17	R3740396
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0055		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	2.08		0.30	mg/L		05-JUN-17	R3740396
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	5.9		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	5.9		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0396		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00021		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-12 BENDING LAKE 1							
Sampled By: JMQ on 01-JUN-17 @ 09:01							
Matrix: Water							
Total Metals							
Barium (Ba)-Total	0.00458		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000215		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	2.61		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000015		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00018		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	0.00066		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.088		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.573		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00493		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000075		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.409		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00125		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000057		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.57		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	0.891		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0123		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	0.57		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00040		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000065		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000062		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0267		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-12 BENDING LAKE 1 Sampled By: JMQ on 01-JUN-17 @ 09:01 Matrix: Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00014		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00329		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000056		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.55		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00026		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.036		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.531		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00060		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000057		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.375		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00102		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000058		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.60		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.852		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0107		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000064		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0015		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-13 BENDING LAKE 2 Sampled By: JMQ on 01-JUN-17 @ 09:22 Matrix: Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-13 BENDING LAKE 2 Sampled By: JMQ on 01-JUN-17 @ 09:22 Matrix: Water							
Physical Tests							
Conductivity (EC)	24.1		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	8.87		0.50	mg/L		10-JUN-17	
pH	6.79		0.10	pH		04-JUN-17	R3739794
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	23		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.1		2.0	mg/L		06-JUN-17	R3741347
Alkalinity, Total (as CaCO3)	8.1		2.0	mg/L		04-JUN-17	R3739794
Ammonia, Total (as N)	0.037		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		05-JUN-17	R3740396
Chloride (Cl)	0.34		0.10	mg/L		05-JUN-17	R3740396
Fluoride (F)	0.038		0.020	mg/L		05-JUN-17	R3740396
Nitrate (as N)	0.036		0.020	mg/L		05-JUN-17	R3740396
Nitrite (as N)	<0.010		0.010	mg/L		05-JUN-17	R3740396
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0052		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.94		0.30	mg/L		05-JUN-17	R3740396
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	5.9		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	5.8		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0411		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00020		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.00444		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	2.64		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000014		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00017		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.086		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.567		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00544		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-13 BENDING LAKE 2 Sampled By: JMQ on 01-JUN-17 @ 09:22 Matrix: Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000066		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.415		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00121		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000075		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.63		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	0.892		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0123		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00036		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000065		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0315		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00017		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00417		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000149		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.55		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00018		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00032		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.041		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-13 BENDING LAKE 2 Sampled By: JMQ on 01-JUN-17 @ 09:22 Matrix: Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.606		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00069		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000058		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.441		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00125		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000058		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.70		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.985		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000059		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0017		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-14 BENDING LAKE 3 Sampled By: JMQ on 01-JUN-17 @ 09:41 Matrix: Water							
Physical Tests							
Conductivity (EC)	25.1		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	9.01		0.50	mg/L		10-JUN-17	
pH	7.00		0.10	pH		03-JUN-17	R3739465
Total Suspended Solids	18.3		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	19		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.9		2.0	mg/L		03-JUN-17	R3739465
Alkalinity, Total (as CaCO3)	8.2		2.0	mg/L		07-JUN-17	R3742538
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		05-JUN-17	R3740396
Chloride (Cl)	0.37		0.10	mg/L		05-JUN-17	R3740396
Fluoride (F)	0.038		0.020	mg/L		05-JUN-17	R3740396
Nitrate (as N)	0.066		0.020	mg/L		05-JUN-17	R3740396
Nitrite (as N)	<0.010		0.010	mg/L		05-JUN-17	R3740396

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-14 BENDING LAKE 3 Sampled By: JMQ on 01-JUN-17 @ 09:41 Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		07-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0055		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	2.00		0.30	mg/L		05-JUN-17	R3740396
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	5.9		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	5.7		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.0404		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00020		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Barium (Ba)-Total	0.00446		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000067		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	2.66		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000014		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00017		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	0.00053		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.092		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	0.000054		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.565		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00659		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	0.000069		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.406		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00117		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000071		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.66		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	0.886		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.0123		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-14 BENDING LAKE 3 Sampled By: JMQ on 01-JUN-17 @ 09:41 Matrix: Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00039		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000061		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.0351		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00415		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	2.60		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000012		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00031		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.054		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.609		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00165		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	0.000056		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.437		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00127		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000055		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.78		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	0.971		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-14 BENDING LAKE 3 Sampled By: JMQ on 01-JUN-17 @ 09:41 Matrix: Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000055		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0014		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376
L1935823-15 DUP Sampled By: JMQ on 01-JUN-17 @ 00:01 Matrix: Water							
Physical Tests							
Conductivity (EC)	20.4		3.0	uS/cm		03-JUN-17	R3739465
Hardness (as CaCO3)	5.32		0.50	mg/L		10-JUN-17	
pH	6.23		0.10	pH		04-JUN-17	R3739794
Total Suspended Solids	<1.0		1.0	mg/L		05-JUN-17	R3740606
Total Dissolved Solids	24		10	mg/L		06-JUN-17	R3741348
Anions and Nutrients							
Acidity (as CaCO3)	3.8		2.0	mg/L		06-JUN-17	R3741347
Alkalinity, Total (as CaCO3)	3.4		2.0	mg/L		04-JUN-17	R3739794
Ammonia, Total (as N)	<0.020		0.020	mg/L		06-JUN-17	R3740889
Bromide (Br)	<0.10		0.10	mg/L		05-JUN-17	R3740396
Chloride (Cl)	2.11		0.10	mg/L		05-JUN-17	R3740396
Fluoride (F)	0.039		0.020	mg/L		05-JUN-17	R3740396
Nitrate (as N)	<0.020		0.020	mg/L		05-JUN-17	R3740396
Nitrite (as N)	<0.010		0.010	mg/L		05-JUN-17	R3740396
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	13-JUN-17	13-JUN-17	R3746518
Total Nitrogen	<0.25		0.25	mg/L		16-JUN-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		05-JUN-17	R3740504
Phosphorus (P)-Total	0.0066		0.0030	mg/L	03-JUN-17	05-JUN-17	R3740085
Sulfate (SO4)	1.04		0.30	mg/L		05-JUN-17	R3740396
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					05-JUN-17	R3739804
Dissolved Organic Carbon	10.3		1.0	mg/L	05-JUN-17	05-JUN-17	R3740523
Total Organic Carbon	10.6		1.0	mg/L		05-JUN-17	R3740502
Total Metals							
Aluminum (Al)-Total	0.142		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Arsenic (As)-Total	0.00028		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-15 DUP							
Sampled By: JMQ on 01-JUN-17 @ 00:01							
Matrix: Water							
Total Metals							
Barium (Ba)-Total	0.00474		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Boron (B)-Total	<0.010		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cadmium (Cd)-Total	0.0000109		0.0000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Calcium (Ca)-Total	1.42		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Cesium (Cs)-Total	0.000014		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Chromium (Cr)-Total	0.00034		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Copper (Cu)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Iron (Fe)-Total	0.277		0.010	mg/L	08-JUN-17	09-JUN-17	R3744202
Lead (Pb)-Total	0.000118		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Lithium (Li)-Total	<0.0010		0.0010	mg/L	08-JUN-17	09-JUN-17	R3744202
Magnesium (Mg)-Total	0.377		0.0050	mg/L	08-JUN-17	09-JUN-17	R3744202
Manganese (Mn)-Total	0.00945		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		03-JUN-17	R3739408
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Phosphorus (P)-Total	<0.050		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Potassium (K)-Total	0.303		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Rubidium (Rb)-Total	0.00114		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Selenium (Se)-Total	0.000071		0.000050	mg/L	08-JUN-17	09-JUN-17	R3744202
Silicon (Si)-Total	1.36		0.10	mg/L	08-JUN-17	09-JUN-17	R3744202
Silver (Ag)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Sodium (Na)-Total	1.74		0.050	mg/L	08-JUN-17	09-JUN-17	R3744202
Strontium (Sr)-Total	0.00945		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Sulfur (S)-Total	<0.50		0.50	mg/L	08-JUN-17	09-JUN-17	R3744202
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	08-JUN-17	09-JUN-17	R3744202
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Thorium (Th)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Tin (Sn)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Titanium (Ti)-Total	0.00105		0.00030	mg/L	08-JUN-17	09-JUN-17	R3744202
Tungsten (W)-Total	<0.00010		0.00010	mg/L	08-JUN-17	09-JUN-17	R3744202
Uranium (U)-Total	0.000053		0.000010	mg/L	08-JUN-17	09-JUN-17	R3744202
Vanadium (V)-Total	<0.00050		0.00050	mg/L	08-JUN-17	09-JUN-17	R3744202
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	08-JUN-17	09-JUN-17	R3744202
Zirconium (Zr)-Total	0.000134		0.000060	mg/L	08-JUN-17	09-JUN-17	R3744202
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					03-JUN-17	R3739287
Dissolved Metals Filtration Location	FIELD					04-JUN-17	R3740351
Aluminum (Al)-Dissolved	0.142		0.0020	mg/L	04-JUN-17	05-JUN-17	R3740376

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1935823-15 DUP							
Sampled By: JMQ on 01-JUN-17 @ 00:01							
Matrix: Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Arsenic (As)-Dissolved	0.00027		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Barium (Ba)-Dissolved	0.00461		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cadmium (Cd)-Dissolved	0.0000073		0.0000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Calcium (Ca)-Dissolved	1.43		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Chromium (Cr)-Dissolved	0.00020		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Copper (Cu)-Dissolved	0.00027		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Iron (Fe)-Dissolved	0.247		0.010	mg/L	04-JUN-17	05-JUN-17	R3740376
Lead (Pb)-Dissolved	0.000100		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Magnesium (Mg)-Dissolved	0.426		0.0050	mg/L	04-JUN-17	05-JUN-17	R3740376
Manganese (Mn)-Dissolved	0.00991		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	03-JUN-17	03-JUN-17	R3739414
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Potassium (K)-Dissolved	0.343		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Rubidium (Rb)-Dissolved	0.00116		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Selenium (Se)-Dissolved	0.000065		0.000050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silicon (Si)-Dissolved	1.48		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Sodium (Na)-Dissolved	1.99		0.050	mg/L	04-JUN-17	05-JUN-17	R3740376
Strontium (Sr)-Dissolved	0.00869		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-JUN-17	05-JUN-17	R3740376
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-JUN-17	05-JUN-17	R3740376
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Titanium (Ti)-Dissolved	0.00087		0.00030	mg/L	04-JUN-17	05-JUN-17	R3740376
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-JUN-17	05-JUN-17	R3740376
Uranium (U)-Dissolved	0.000051		0.000010	mg/L	04-JUN-17	05-JUN-17	R3740376
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-JUN-17	05-JUN-17	R3740376
Zinc (Zn)-Dissolved	0.0019		0.0010	mg/L	04-JUN-17	05-JUN-17	R3740376
Zirconium (Zr)-Dissolved	0.000166		0.000060	mg/L	04-JUN-17	05-JUN-17	R3740376

* 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)
Method Blank	Barium (Ba)-Dissolved	B	L1935823-1
Method Blank	Barium (Ba)-Total	B	L1935823-10, -11, -12, -13, -14, -15, -6, -7, -8, -9
Method Blank	Tin (Sn)-Total	B	L1935823-2, -3, -4, -5
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1935823-2
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L1935823-1
Matrix Spike	Boron (B)-Dissolved	MS-B	L1935823-2
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1935823-2
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L1935823-1
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L1935823-2
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L1935823-1
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L1935823-1
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1935823-2
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L1935823-1
Matrix Spike	Potassium (K)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Potassium (K)-Dissolved	MS-B	L1935823-2
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L1935823-2
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1935823-2
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L1935823-1
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1935823-2
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L1935823-1
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L1935823-10, -11, -12, -13, -14, -15, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Calcium (Ca)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Calcium (Ca)-Total	MS-B	L1935823-1
Matrix Spike	Calcium (Ca)-Total	MS-B	L1935823-10, -11, -12, -13, -14, -15, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1935823-1
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1935823-10, -11, -12, -13, -14, -15, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Sodium (Na)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Strontium (Sr)-Total	MS-B	L1935823-2, -3, -4, -5
Matrix Spike	Strontium (Sr)-Total	MS-B	L1935823-1
Matrix Spike	Sulfate (SO4)	MS-B	L1935823-12, -13, -14, -15

Sample Parameter Qualifier key listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-TITR-TB	Water	Acidity	APHA 2310 B modified

Reference Information

This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.

ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
DOC-TB	Water	Dissolved Organic Carbon	APHA 5310 B modified
Water samples are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis. Analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
EC-TITR-TB	Water	Conductivity	APHA 2510 B
This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.			
F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-TB	Water	Hardness (as CaCO ₃)	CALCULATION
HG-D-CVAF-TB	Water	Dissolved Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
HG-T-CVAF-TB	Water	Total Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-T-CCMS-TB	Water	Total Metals in Water by CRC	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
N-T-CALC-TB	Water	Total Nitrogen (Calculation)	APHA 4500 N-Calculated
Total Nitrogen is a calculated parameter. Total Nitrogen = Total Kjeldahl Nitrogen +[Nitrate and Nitrite (as N)]			
NH3-COL-TB	Water	Ammonia by Discrete Analyzer	APHA 4500-NH ₃ G. (modified)
Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.			
NO2-IC-N-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-IC-N-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
PH-TITR-TB	Water	pH	APHA 4500-H
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
SO4-IC-N-TB	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)
Aqueous matrices are analyzed using gravimetry and evaporation			
TKN-COL-TB	Water	Total Kjeldahl Nitrogen	APHA 4500-Norg (modified)

Reference Information

Total Kjeldahl Nitrogen in aqueous matrices is analyzed using a discrete analyzer with colourimetric detection.

TOC-TB Water Total Organic Carbon (TOC) APHA 5310 B modified
 Water samples are analyzed by converting all carbonaceous material to carbon dioxide (CO₂) by catalytic combustion at 850°C. The CO₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample

TSS-L-TB Water Low Level Total Suspended Solids APHA 2540 D (modified)
 Aqueous matrices are analyzed using gravimetry.

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

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

Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 1 of 33

Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. TORONTO
 374 Wellington Street West Suite 3
 Toronto ON M5V 1E3

Contact: Jake McQueen

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-TITR-TB								
	Water							
Batch	R3739465							
WG2540751-18	DUP	L1935823-5						
Acidity (as CaCO3)		3.6	3.2		mg/L	12	20	03-JUN-17
WG2540751-17	LCS							
Acidity (as CaCO3)			102.0		%		85-115	03-JUN-17
WG2540751-5	LCS							
Acidity (as CaCO3)			94.4		%		85-115	03-JUN-17
WG2540751-8	LCS							
Acidity (as CaCO3)			95.6		%		85-115	03-JUN-17
WG2540751-16	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	03-JUN-17
WG2540751-4	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	03-JUN-17
WG2540751-7	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	03-JUN-17
Batch	R3741347							
WG2541962-5	LCS							
Acidity (as CaCO3)			103.2		%		85-115	06-JUN-17
WG2541962-4	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	06-JUN-17
ALK-TITR-TB								
	Water							
Batch	R3739794							
WG2540943-21	DUP	L1935823-2						
Alkalinity, Total (as CaCO3)		9.8	10.0		mg/L	2.0	20	04-JUN-17
WG2540943-20	LCS							
Alkalinity, Total (as CaCO3)			107.1		%		85-115	04-JUN-17
WG2540943-8	LCS							
Alkalinity, Total (as CaCO3)			97.3		%		85-115	04-JUN-17
WG2540943-19	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	04-JUN-17
WG2540943-7	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	04-JUN-17
Batch	R3742538							
WG2542927-3	DUP	L1935823-3						
Alkalinity, Total (as CaCO3)		8.4	7.8		mg/L	7.4	20	07-JUN-17
WG2542927-11	LCS							
Alkalinity, Total (as CaCO3)			99.2		%		85-115	07-JUN-17
WG2542927-2	LCS							
Alkalinity, Total (as CaCO3)			101.7		%		85-115	07-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 2 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-TITR-TB		Water						
Batch R3742538								
WG2542927-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	07-JUN-17
WG2542927-10 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	07-JUN-17
BR-IC-N-TB		Water						
Batch R3739661								
WG2540946-12 DUP		L1935823-2						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	04-JUN-17
WG2540946-16 DUP		L1935823-11						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	04-JUN-17
WG2540946-10 LCS								
Bromide (Br)			99.4		%		85-115	04-JUN-17
WG2540946-14 LCS								
Bromide (Br)			93.1		%		85-115	04-JUN-17
WG2540946-13 MB								
Bromide (Br)			<0.10		mg/L		0.1	04-JUN-17
WG2540946-9 MB								
Bromide (Br)			<0.10		mg/L		0.1	04-JUN-17
WG2540946-11 MS		L1935823-2						
Bromide (Br)			109.3		%		75-125	04-JUN-17
WG2540946-15 MS		L1935823-11						
Bromide (Br)			108.7		%		75-125	04-JUN-17
Batch R3740396								
WG2541579-2 LCS								
Bromide (Br)			98.6		%		85-115	05-JUN-17
WG2541579-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	05-JUN-17
Batch R3741180								
WG2542404-6 LCS								
Bromide (Br)			111.9		%		85-115	06-JUN-17
WG2542404-5 MB								
Bromide (Br)			<0.10		mg/L		0.1	06-JUN-17
CL-L-IC-N-TB		Water						
Batch R3739661								
WG2540946-12 DUP		L1935823-2						
Chloride (Cl)		0.16	0.15		mg/L	1.3	20	04-JUN-17
WG2540946-16 DUP		L1935823-11						
Chloride (Cl)		0.32	0.33		mg/L	1.4	20	04-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 3 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-TB								
Water								
Batch	R3739661							
WG2540946-10	LCS							
Chloride (Cl)			99.9		%		90-110	04-JUN-17
WG2540946-14	LCS							
Chloride (Cl)			99.7		%		90-110	04-JUN-17
WG2540946-13	MB							
Chloride (Cl)			<0.10		mg/L		0.1	04-JUN-17
WG2540946-9	MB							
Chloride (Cl)			<0.10		mg/L		0.1	04-JUN-17
WG2540946-11	MS	L1935823-2						
Chloride (Cl)			107.6		%		75-125	04-JUN-17
WG2540946-15	MS	L1935823-11						
Chloride (Cl)			100.1		%		75-125	04-JUN-17
Batch	R3740396							
WG2541579-2	LCS							
Chloride (Cl)			106.9		%		90-110	05-JUN-17
WG2541579-1	MB							
Chloride (Cl)			<0.10		mg/L		0.1	05-JUN-17
Batch	R3741180							
WG2542404-6	LCS							
Chloride (Cl)			100.9		%		90-110	06-JUN-17
WG2542404-5	MB							
Chloride (Cl)			<0.10		mg/L		0.1	06-JUN-17
DOC-TB								
Water								
Batch	R3740523							
WG2541358-3	DUP	L1935823-2						
Dissolved Organic Carbon		8.3	8.3		mg/L	0.6	20	05-JUN-17
WG2541358-2	LCS							
Dissolved Organic Carbon			102.0		%		80-120	05-JUN-17
WG2541358-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	05-JUN-17
WG2541358-4	MS	L1935823-2						
Dissolved Organic Carbon			108.7		%		70-130	05-JUN-17
EC-TITR-TB								
Water								
Batch	R3739465							
WG2540751-18	DUP	L1935823-5						
Conductivity (EC)		23.5	23.5		uS/cm	0.0	10	03-JUN-17
WG2540751-14	LCS							
Conductivity (EC)			102.0		%		90-110	03-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 4 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-TITR-TB		Water						
Batch	R3739465							
WG2540751-17	LCS							
Conductivity (EC)			102.0		%		90-110	03-JUN-17
WG2540751-5	LCS							
Conductivity (EC)			100.4		%		90-110	03-JUN-17
WG2540751-8	LCS							
Conductivity (EC)			101.6		%		90-110	03-JUN-17
WG2540751-13	MB							
Conductivity (EC)			<3.0		uS/cm		3	03-JUN-17
WG2540751-16	MB							
Conductivity (EC)			<3.0		uS/cm		3	03-JUN-17
WG2540751-4	MB							
Conductivity (EC)			<3.0		uS/cm		3	03-JUN-17
WG2540751-7	MB							
Conductivity (EC)			<3.0		uS/cm		3	03-JUN-17
F-IC-N-TB		Water						
Batch	R3739661							
WG2540946-12	DUP	L1935823-2						
Fluoride (F)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	04-JUN-17
WG2540946-16	DUP	L1935823-11						
Fluoride (F)		0.035	0.036		mg/L	4.4	20	04-JUN-17
WG2540946-10	LCS							
Fluoride (F)			100.2		%		90-110	04-JUN-17
WG2540946-14	LCS							
Fluoride (F)			101.5		%		90-110	04-JUN-17
WG2540946-13	MB							
Fluoride (F)			<0.020		mg/L		0.02	04-JUN-17
WG2540946-9	MB							
Fluoride (F)			<0.020		mg/L		0.02	04-JUN-17
WG2540946-11	MS	L1935823-2						
Fluoride (F)			106.7		%		75-125	04-JUN-17
WG2540946-15	MS	L1935823-11						
Fluoride (F)			101.5		%		75-125	04-JUN-17
Batch	R3740396							
WG2541579-2	LCS							
Fluoride (F)			106.5		%		90-110	05-JUN-17
WG2541579-1	MB							
Fluoride (F)			<0.020		mg/L		0.02	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 5 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-TB								
Water								
Batch	R3741180							
WG2542404-6	LCS							
Fluoride (F)			99.4		%		90-110	06-JUN-17
WG2542404-5	MB							
Fluoride (F)			<0.020		mg/L		0.02	06-JUN-17
HG-D-CVAF-TB								
Water								
Batch	R3739414							
WG2540650-3	DUP	L1935823-13						
Mercury (Hg)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	03-JUN-17
WG2540650-2	LCS							
Mercury (Hg)-Dissolved			94.1		%		80-120	03-JUN-17
WG2540650-6	LCS							
Mercury (Hg)-Dissolved			94.4		%		80-120	03-JUN-17
WG2540650-1	MB							
Mercury (Hg)-Dissolved			<0.0000050		mg/L		0.000005	03-JUN-17
WG2540650-5	MB							
Mercury (Hg)-Dissolved			<0.0000050		mg/L		0.000005	03-JUN-17
WG2540650-4	MS	L1935823-14						
Mercury (Hg)-Dissolved			100.3		%		70-130	03-JUN-17
HG-T-CVAF-TB								
Water								
Batch	R3739408							
WG2540649-3	DUP	L1935823-3						
Mercury (Hg)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	03-JUN-17
WG2540649-2	LCS							
Mercury (Hg)-Total			94.0		%		80-120	03-JUN-17
WG2540649-6	LCS							
Mercury (Hg)-Total			93.1		%		80-120	03-JUN-17
WG2540649-1	MB							
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	03-JUN-17
WG2540649-5	MB							
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	03-JUN-17
WG2540649-4	MS	L1935823-4						
Mercury (Hg)-Total			93.7		%		70-130	03-JUN-17
MET-D-CCMS-TB								
Water								
Batch	R3740376							
WG2541534-7	DUP	L1935823-15						
Aluminum (Al)-Dissolved		0.142	0.143		mg/L	0.7	20	05-JUN-17
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Arsenic (As)-Dissolved		0.00027	0.00029		mg/L	5.1	20	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 6 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-7	DUP	L1935823-15						
Barium (Ba)-Dissolved		0.00461	0.00449		mg/L	2.6	20	05-JUN-17
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	05-JUN-17
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	05-JUN-17
Cadmium (Cd)-Dissolved		0.0000073	0.0000082		mg/L	12	20	05-JUN-17
Calcium (Ca)-Dissolved		1.43	1.45		mg/L	1.5	20	05-JUN-17
Cesium (Cs)-Dissolved		0.000016	0.000015		mg/L	6.1	20	05-JUN-17
Chromium (Cr)-Dissolved		0.00020	0.00023		mg/L	13	20	05-JUN-17
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Copper (Cu)-Dissolved		0.00027	0.00026		mg/L	1.6	20	05-JUN-17
Iron (Fe)-Dissolved		0.247	0.245		mg/L	1.0	20	05-JUN-17
Lead (Pb)-Dissolved		0.000100	0.000095		mg/L	4.5	20	05-JUN-17
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	05-JUN-17
Magnesium (Mg)-Dissolved		0.426	0.425		mg/L	0.2	20	05-JUN-17
Manganese (Mn)-Dissolved		0.00991	0.00995		mg/L	0.4	20	05-JUN-17
Molybdenum (Mo)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	05-JUN-17
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	05-JUN-17
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	05-JUN-17
Potassium (K)-Dissolved		0.343	0.349		mg/L	1.7	20	05-JUN-17
Rubidium (Rb)-Dissolved		0.00116	0.00121		mg/L	4.0	20	05-JUN-17
Selenium (Se)-Dissolved		0.000065	0.000055		mg/L	15	20	05-JUN-17
Silicon (Si)-Dissolved		1.48	1.51		mg/L	2.0	20	05-JUN-17
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	05-JUN-17
Sodium (Na)-Dissolved		1.99	2.04		mg/L	2.8	20	05-JUN-17
Strontium (Sr)-Dissolved		0.00869	0.00872		mg/L	0.3	20	05-JUN-17
Sulfur (S)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	05-JUN-17
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	05-JUN-17
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	05-JUN-17
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Titanium (Ti)-Dissolved		0.00087	0.00091		mg/L	4.5	20	05-JUN-17
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	05-JUN-17
Uranium (U)-Dissolved		0.000051	0.000053		mg/L	3.2	20	05-JUN-17
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 7 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-7	DUP	L1935823-15						
Zinc (Zn)-Dissolved		0.0019	0.0018		mg/L	4.6	20	05-JUN-17
Zirconium (Zr)-Dissolved		0.000166	0.000164		mg/L	1.2	20	05-JUN-17
WG2541534-2	LCS							
Aluminum (Al)-Dissolved			103.6		%		80-120	05-JUN-17
Antimony (Sb)-Dissolved			102.7		%		80-120	05-JUN-17
Arsenic (As)-Dissolved			103.9		%		80-120	05-JUN-17
Barium (Ba)-Dissolved			99.3		%		80-120	05-JUN-17
Beryllium (Be)-Dissolved			102.7		%		80-120	05-JUN-17
Bismuth (Bi)-Dissolved			106.7		%		80-120	05-JUN-17
Boron (B)-Dissolved			92.7		%		80-120	05-JUN-17
Cadmium (Cd)-Dissolved			97.8		%		80-120	05-JUN-17
Calcium (Ca)-Dissolved			102.2		%		80-120	05-JUN-17
Cesium (Cs)-Dissolved			100.4		%		80-120	05-JUN-17
Chromium (Cr)-Dissolved			101.4		%		80-120	05-JUN-17
Cobalt (Co)-Dissolved			101.8		%		80-120	05-JUN-17
Copper (Cu)-Dissolved			99.7		%		80-120	05-JUN-17
Iron (Fe)-Dissolved			103.6		%		80-120	05-JUN-17
Lead (Pb)-Dissolved			105.1		%		80-120	05-JUN-17
Lithium (Li)-Dissolved			102.3		%		80-120	05-JUN-17
Magnesium (Mg)-Dissolved			107.8		%		80-120	05-JUN-17
Manganese (Mn)-Dissolved			105.7		%		80-120	05-JUN-17
Molybdenum (Mo)-Dissolved			96.2		%		80-120	05-JUN-17
Nickel (Ni)-Dissolved			102.1		%		80-120	05-JUN-17
Phosphorus (P)-Dissolved			106.8		%		70-130	05-JUN-17
Potassium (K)-Dissolved			109.2		%		80-120	05-JUN-17
Rubidium (Rb)-Dissolved			103.2		%		80-120	05-JUN-17
Selenium (Se)-Dissolved			102.7		%		80-120	05-JUN-17
Silicon (Si)-Dissolved			97.7		%		60-140	05-JUN-17
Silver (Ag)-Dissolved			99.0		%		80-120	05-JUN-17
Sodium (Na)-Dissolved			112.8		%		80-120	05-JUN-17
Strontium (Sr)-Dissolved			96.8		%		80-120	05-JUN-17
Sulfur (S)-Dissolved			110.6		%		80-120	05-JUN-17
Tellurium (Te)-Dissolved			92.0		%		80-120	05-JUN-17
Thallium (Tl)-Dissolved			105.3		%		80-120	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 8 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-2	LCS							
Thorium (Th)-Dissolved			103.8		%		80-120	05-JUN-17
Tin (Sn)-Dissolved			98.1		%		80-120	05-JUN-17
Titanium (Ti)-Dissolved			102.1		%		80-120	05-JUN-17
Tungsten (W)-Dissolved			102.3		%		80-120	05-JUN-17
Uranium (U)-Dissolved			107.8		%		80-120	05-JUN-17
Vanadium (V)-Dissolved			104.4		%		80-120	05-JUN-17
Zinc (Zn)-Dissolved			98.4		%		80-120	05-JUN-17
Zirconium (Zr)-Dissolved			95.5		%		80-120	05-JUN-17
WG2541534-6	LCS							
Aluminum (Al)-Dissolved			100.8		%		80-120	05-JUN-17
Antimony (Sb)-Dissolved			109.4		%		80-120	05-JUN-17
Arsenic (As)-Dissolved			103.2		%		80-120	05-JUN-17
Barium (Ba)-Dissolved			99.0		%		80-120	05-JUN-17
Beryllium (Be)-Dissolved			100.3		%		80-120	05-JUN-17
Bismuth (Bi)-Dissolved			104.1		%		80-120	05-JUN-17
Boron (B)-Dissolved			88.9		%		80-120	05-JUN-17
Cadmium (Cd)-Dissolved			98.4		%		80-120	05-JUN-17
Calcium (Ca)-Dissolved			97.9		%		80-120	05-JUN-17
Cesium (Cs)-Dissolved			103.3		%		80-120	05-JUN-17
Chromium (Cr)-Dissolved			100.5		%		80-120	05-JUN-17
Cobalt (Co)-Dissolved			101.4		%		80-120	05-JUN-17
Copper (Cu)-Dissolved			108.1		%		80-120	05-JUN-17
Iron (Fe)-Dissolved			103.5		%		80-120	05-JUN-17
Lead (Pb)-Dissolved			103.3		%		80-120	05-JUN-17
Lithium (Li)-Dissolved			99.6		%		80-120	05-JUN-17
Magnesium (Mg)-Dissolved			105.3		%		80-120	05-JUN-17
Manganese (Mn)-Dissolved			102.1		%		80-120	05-JUN-17
Molybdenum (Mo)-Dissolved			95.2		%		80-120	05-JUN-17
Nickel (Ni)-Dissolved			100.0		%		80-120	05-JUN-17
Phosphorus (P)-Dissolved			97.4		%		70-130	05-JUN-17
Potassium (K)-Dissolved			109.1		%		80-120	05-JUN-17
Rubidium (Rb)-Dissolved			104.5		%		80-120	05-JUN-17
Selenium (Se)-Dissolved			102.5		%		80-120	05-JUN-17
Silicon (Si)-Dissolved			94.0		%		60-140	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 9 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-6	LCS							
Silver (Ag)-Dissolved			103.9		%		80-120	05-JUN-17
Sodium (Na)-Dissolved			111.5		%		80-120	05-JUN-17
Strontium (Sr)-Dissolved			93.0		%		80-120	05-JUN-17
Sulfur (S)-Dissolved			98.0		%		80-120	05-JUN-17
Tellurium (Te)-Dissolved			106.5		%		80-120	05-JUN-17
Thallium (Tl)-Dissolved			104.3		%		80-120	05-JUN-17
Thorium (Th)-Dissolved			101.7		%		80-120	05-JUN-17
Tin (Sn)-Dissolved			98.8		%		80-120	05-JUN-17
Titanium (Ti)-Dissolved			100.3		%		80-120	05-JUN-17
Tungsten (W)-Dissolved			100.5		%		80-120	05-JUN-17
Uranium (U)-Dissolved			106.0		%		80-120	05-JUN-17
Vanadium (V)-Dissolved			103.2		%		80-120	05-JUN-17
Zinc (Zn)-Dissolved			101.6		%		80-120	05-JUN-17
Zirconium (Zr)-Dissolved			95.6		%		80-120	05-JUN-17
WG2541534-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	05-JUN-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	05-JUN-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	05-JUN-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	05-JUN-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	05-JUN-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	05-JUN-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 10 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-1	MB							
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	05-JUN-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	05-JUN-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	05-JUN-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	05-JUN-17
WG2541534-5	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	05-JUN-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	05-JUN-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	05-JUN-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 11 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-5	MB							
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	05-JUN-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	05-JUN-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	05-JUN-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	05-JUN-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	05-JUN-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	05-JUN-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	05-JUN-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	05-JUN-17
WG2541534-8	MS	L1935823-15						
Aluminum (Al)-Dissolved			97.8		%		70-130	05-JUN-17
Antimony (Sb)-Dissolved			107.0		%		70-130	05-JUN-17
Arsenic (As)-Dissolved			104.9		%		70-130	05-JUN-17
Barium (Ba)-Dissolved			100.6		%		70-130	05-JUN-17
Beryllium (Be)-Dissolved			102.1		%		70-130	05-JUN-17
Bismuth (Bi)-Dissolved			89.7		%		70-130	05-JUN-17
Boron (B)-Dissolved			99.9		%		70-130	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 12 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3740376							
WG2541534-8	MS	L1935823-15						
Cadmium (Cd)-Dissolved			102.8		%		70-130	05-JUN-17
Calcium (Ca)-Dissolved			99.8		%		70-130	05-JUN-17
Cesium (Cs)-Dissolved			102.9		%		70-130	05-JUN-17
Chromium (Cr)-Dissolved			99.9		%		70-130	05-JUN-17
Cobalt (Co)-Dissolved			100.2		%		70-130	05-JUN-17
Copper (Cu)-Dissolved			101.2		%		70-130	05-JUN-17
Iron (Fe)-Dissolved			101.1		%		70-130	05-JUN-17
Lead (Pb)-Dissolved			103.0		%		70-130	05-JUN-17
Lithium (Li)-Dissolved			100.4		%		70-130	05-JUN-17
Magnesium (Mg)-Dissolved			99.5		%		70-130	05-JUN-17
Manganese (Mn)-Dissolved			103.4		%		70-130	05-JUN-17
Molybdenum (Mo)-Dissolved			95.5		%		70-130	05-JUN-17
Nickel (Ni)-Dissolved			103.2		%		70-130	05-JUN-17
Phosphorus (P)-Dissolved			102.2		%		70-130	05-JUN-17
Potassium (K)-Dissolved			106.1		%		70-130	05-JUN-17
Rubidium (Rb)-Dissolved			103.8		%		70-130	05-JUN-17
Selenium (Se)-Dissolved			108.6		%		70-130	05-JUN-17
Silicon (Si)-Dissolved			91.8		%		70-130	05-JUN-17
Silver (Ag)-Dissolved			103.4		%		70-130	05-JUN-17
Sodium (Na)-Dissolved			107.0		%		70-130	05-JUN-17
Strontium (Sr)-Dissolved			98.1		%		70-130	05-JUN-17
Sulfur (S)-Dissolved			103.4		%		70-130	05-JUN-17
Tellurium (Te)-Dissolved			106.5		%		70-130	05-JUN-17
Thallium (Tl)-Dissolved			103.1		%		70-130	05-JUN-17
Thorium (Th)-Dissolved			106.6		%		70-130	05-JUN-17
Tin (Sn)-Dissolved			98.6		%		70-130	05-JUN-17
Titanium (Ti)-Dissolved			102.5		%		70-130	05-JUN-17
Tungsten (W)-Dissolved			97.8		%		70-130	05-JUN-17
Uranium (U)-Dissolved			103.3		%		70-130	05-JUN-17
Vanadium (V)-Dissolved			103.8		%		70-130	05-JUN-17
Zinc (Zn)-Dissolved			104.6		%		70-130	05-JUN-17
Zirconium (Zr)-Dissolved			97.4		%		70-130	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 13 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3744209							
WG2542473-2	LCS							
Aluminum (Al)-Dissolved			101.7		%		80-120	09-JUN-17
Antimony (Sb)-Dissolved			101.2		%		80-120	09-JUN-17
Arsenic (As)-Dissolved			105.0		%		80-120	09-JUN-17
Barium (Ba)-Dissolved			98.0		%		80-120	09-JUN-17
Beryllium (Be)-Dissolved			99.0		%		80-120	09-JUN-17
Bismuth (Bi)-Dissolved			97.2		%		80-120	09-JUN-17
Boron (B)-Dissolved			93.1		%		80-120	09-JUN-17
Cadmium (Cd)-Dissolved			99.4		%		80-120	09-JUN-17
Calcium (Ca)-Dissolved			102.6		%		80-120	09-JUN-17
Cesium (Cs)-Dissolved			105.4		%		80-120	09-JUN-17
Chromium (Cr)-Dissolved			102.5		%		80-120	09-JUN-17
Cobalt (Co)-Dissolved			103.7		%		80-120	09-JUN-17
Copper (Cu)-Dissolved			102.2		%		80-120	09-JUN-17
Iron (Fe)-Dissolved			102.3		%		80-120	09-JUN-17
Lead (Pb)-Dissolved			98.1		%		80-120	09-JUN-17
Lithium (Li)-Dissolved			96.6		%		80-120	09-JUN-17
Magnesium (Mg)-Dissolved			102.8		%		80-120	09-JUN-17
Manganese (Mn)-Dissolved			101.6		%		80-120	09-JUN-17
Molybdenum (Mo)-Dissolved			102.7		%		80-120	09-JUN-17
Nickel (Ni)-Dissolved			106.0		%		80-120	09-JUN-17
Phosphorus (P)-Dissolved			106.8		%		70-130	09-JUN-17
Potassium (K)-Dissolved			111.0		%		80-120	09-JUN-17
Rubidium (Rb)-Dissolved			103.3		%		80-120	09-JUN-17
Selenium (Se)-Dissolved			98.0		%		80-120	09-JUN-17
Silicon (Si)-Dissolved			89.0		%		60-140	09-JUN-17
Silver (Ag)-Dissolved			104.8		%		80-120	09-JUN-17
Sodium (Na)-Dissolved			107.2		%		80-120	09-JUN-17
Strontium (Sr)-Dissolved			107.0		%		80-120	09-JUN-17
Sulfur (S)-Dissolved			104.0		%		80-120	09-JUN-17
Tellurium (Te)-Dissolved			96.8		%		80-120	09-JUN-17
Thallium (Tl)-Dissolved			91.0		%		80-120	09-JUN-17
Thorium (Th)-Dissolved			97.6		%		80-120	09-JUN-17
Tin (Sn)-Dissolved			99.8		%		80-120	09-JUN-17
Titanium (Ti)-Dissolved			99.5		%		80-120	09-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 14 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3744209							
WG2542473-2	LCS							
Tungsten (W)-Dissolved			96.7		%		80-120	09-JUN-17
Uranium (U)-Dissolved			100.1		%		80-120	09-JUN-17
Vanadium (V)-Dissolved			105.2		%		80-120	09-JUN-17
Zinc (Zn)-Dissolved			94.5		%		80-120	09-JUN-17
Zirconium (Zr)-Dissolved			97.1		%		80-120	09-JUN-17
WG2542473-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	09-JUN-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	09-JUN-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	09-JUN-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	09-JUN-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	09-JUN-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	09-JUN-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	09-JUN-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	09-JUN-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	09-JUN-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	09-JUN-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	09-JUN-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	09-JUN-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	09-JUN-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	09-JUN-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	09-JUN-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	09-JUN-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	09-JUN-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	09-JUN-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	09-JUN-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	09-JUN-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	09-JUN-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	09-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 15 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3744209							
WG2542473-1	MB							
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	09-JUN-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	09-JUN-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	09-JUN-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	09-JUN-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	09-JUN-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	09-JUN-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	09-JUN-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	09-JUN-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	09-JUN-17
Batch	R3744350							
WG2544414-14	LCS							
Aluminum (Al)-Dissolved			99.3		%		80-120	10-JUN-17
Antimony (Sb)-Dissolved			102.0		%		80-120	10-JUN-17
Arsenic (As)-Dissolved			105.9		%		80-120	10-JUN-17
Barium (Ba)-Dissolved			97.0		%		80-120	10-JUN-17
Beryllium (Be)-Dissolved			99.6		%		80-120	10-JUN-17
Bismuth (Bi)-Dissolved			99.0		%		80-120	10-JUN-17
Boron (B)-Dissolved			92.2		%		80-120	10-JUN-17
Cadmium (Cd)-Dissolved			99.6		%		80-120	10-JUN-17
Calcium (Ca)-Dissolved			98.4		%		80-120	10-JUN-17
Cesium (Cs)-Dissolved			104.3		%		80-120	10-JUN-17
Chromium (Cr)-Dissolved			101.3		%		80-120	10-JUN-17
Cobalt (Co)-Dissolved			99.2		%		80-120	10-JUN-17
Copper (Cu)-Dissolved			99.2		%		80-120	10-JUN-17
Iron (Fe)-Dissolved			108.3		%		80-120	10-JUN-17
Lead (Pb)-Dissolved			101.3		%		80-120	10-JUN-17
Lithium (Li)-Dissolved			105.0		%		80-120	10-JUN-17
Magnesium (Mg)-Dissolved			107.0		%		80-120	10-JUN-17
Manganese (Mn)-Dissolved			105.4		%		80-120	10-JUN-17
Molybdenum (Mo)-Dissolved			95.5		%		80-120	10-JUN-17
Nickel (Ni)-Dissolved			108.1		%		80-120	10-JUN-17
Phosphorus (P)-Dissolved			105.6		%		70-130	10-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 16 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3744350							
WG2544414-14 LCS								
Potassium (K)-Dissolved			113.5		%		80-120	10-JUN-17
Rubidium (Rb)-Dissolved			92.4		%		80-120	10-JUN-17
Selenium (Se)-Dissolved			104.1		%		80-120	10-JUN-17
Silicon (Si)-Dissolved			125.0		%		60-140	10-JUN-17
Silver (Ag)-Dissolved			98.6		%		80-120	10-JUN-17
Sodium (Na)-Dissolved			114.6		%		80-120	10-JUN-17
Strontium (Sr)-Dissolved			97.0		%		80-120	10-JUN-17
Sulfur (S)-Dissolved			107.0		%		80-120	10-JUN-17
Tellurium (Te)-Dissolved			102.0		%		80-120	10-JUN-17
Thallium (Tl)-Dissolved			98.7		%		80-120	10-JUN-17
Thorium (Th)-Dissolved			101.0		%		80-120	10-JUN-17
Tin (Sn)-Dissolved			96.1		%		80-120	10-JUN-17
Titanium (Ti)-Dissolved			101.2		%		80-120	10-JUN-17
Tungsten (W)-Dissolved			98.6		%		80-120	10-JUN-17
Uranium (U)-Dissolved			105.1		%		80-120	10-JUN-17
Vanadium (V)-Dissolved			104.8		%		80-120	10-JUN-17
Zinc (Zn)-Dissolved			97.0		%		80-120	10-JUN-17
Zirconium (Zr)-Dissolved			95.0		%		80-120	10-JUN-17
WG2544414-13 MB								
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	10-JUN-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Barium (Ba)-Dissolved			0.000053	B	mg/L		0.00005	10-JUN-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	10-JUN-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	10-JUN-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	10-JUN-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	10-JUN-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	10-JUN-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	10-JUN-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	10-JUN-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	10-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 17 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB		Water						
Batch	R3744350							
WG2544414-13 MB								
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	10-JUN-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	10-JUN-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	10-JUN-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	10-JUN-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	10-JUN-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	10-JUN-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	10-JUN-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	10-JUN-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	10-JUN-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	10-JUN-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	10-JUN-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	10-JUN-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	10-JUN-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	10-JUN-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	10-JUN-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	10-JUN-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	10-JUN-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	10-JUN-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	10-JUN-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	10-JUN-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	10-JUN-17
MET-T-CCMS-TB		Water						
Batch	R3740427							
WG2540904-6 LCS								
Aluminum (Al)-Total			100.8		%		80-120	05-JUN-17
Antimony (Sb)-Total			99.0		%		80-120	05-JUN-17
Arsenic (As)-Total			97.5		%		80-120	05-JUN-17
Barium (Ba)-Total			98.2		%		80-120	05-JUN-17
Beryllium (Be)-Total			99.1		%		80-120	05-JUN-17
Bismuth (Bi)-Total			98.5		%		80-120	05-JUN-17
Boron (B)-Total			90.4		%		80-120	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 18 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3740427							
WG2540904-6	LCS							
Cadmium (Cd)-Total			97.1		%		80-120	05-JUN-17
Calcium (Ca)-Total			94.8		%		80-120	05-JUN-17
Cesium (Cs)-Total			96.8		%		80-120	05-JUN-17
Chromium (Cr)-Total			98.5		%		80-120	05-JUN-17
Cobalt (Co)-Total			97.7		%		80-120	05-JUN-17
Copper (Cu)-Total			95.9		%		80-120	05-JUN-17
Iron (Fe)-Total			96.2		%		80-120	05-JUN-17
Lead (Pb)-Total			97.7		%		80-120	05-JUN-17
Lithium (Li)-Total			100.4		%		80-120	05-JUN-17
Magnesium (Mg)-Total			105.2		%		80-120	05-JUN-17
Manganese (Mn)-Total			95.1		%		80-120	05-JUN-17
Molybdenum (Mo)-Total			91.6		%		80-120	05-JUN-17
Nickel (Ni)-Total			97.1		%		80-120	05-JUN-17
Phosphorus (P)-Total			104.6		%		70-130	05-JUN-17
Potassium (K)-Total			100.8		%		80-120	05-JUN-17
Rubidium (Rb)-Total			98.2		%		80-120	05-JUN-17
Selenium (Se)-Total			92.6		%		80-120	05-JUN-17
Silicon (Si)-Total			99.9		%		60-140	05-JUN-17
Silver (Ag)-Total			94.8		%		80-120	05-JUN-17
Sodium (Na)-Total			96.0		%		80-120	05-JUN-17
Strontium (Sr)-Total			96.0		%		80-120	05-JUN-17
Sulfur (S)-Total			95.4		%		80-120	05-JUN-17
Tellurium (Te)-Total			98.6		%		80-120	05-JUN-17
Thallium (Tl)-Total			98.0		%		80-120	05-JUN-17
Thorium (Th)-Total			97.8		%		80-120	05-JUN-17
Tin (Sn)-Total			95.3		%		80-120	05-JUN-17
Titanium (Ti)-Total			96.7		%		80-120	05-JUN-17
Tungsten (W)-Total			94.6		%		80-120	05-JUN-17
Uranium (U)-Total			98.9		%		80-120	05-JUN-17
Vanadium (V)-Total			97.1		%		80-120	05-JUN-17
Zinc (Zn)-Total			89.6		%		80-120	05-JUN-17
Zirconium (Zr)-Total			92.7		%		80-120	05-JUN-17
WG2540904-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 19 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3740427							
WG2540904-5	MB							
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Barium (Ba)-Total			<0.000050		mg/L		0.00005	05-JUN-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	05-JUN-17
Boron (B)-Total			<0.010		mg/L		0.01	05-JUN-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	05-JUN-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	05-JUN-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	05-JUN-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	05-JUN-17
Iron (Fe)-Total			<0.010		mg/L		0.01	05-JUN-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	05-JUN-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	05-JUN-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	05-JUN-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	05-JUN-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	05-JUN-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	05-JUN-17
Potassium (K)-Total			<0.050		mg/L		0.05	05-JUN-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	05-JUN-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	05-JUN-17
Silicon (Si)-Total			<0.10		mg/L		0.1	05-JUN-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	05-JUN-17
Sodium (Na)-Total			<0.050		mg/L		0.05	05-JUN-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	05-JUN-17
Sulfur (S)-Total			<0.50		mg/L		0.5	05-JUN-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	05-JUN-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	05-JUN-17
Thorium (Th)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	05-JUN-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	05-JUN-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	05-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 20 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3740427							
WG2540904-5	MB							
Uranium (U)-Total			<0.000010		mg/L		0.00001	05-JUN-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	05-JUN-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	05-JUN-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	05-JUN-17
Batch	R3742306							
WG2540904-10	LCS							
Aluminum (Al)-Total			100.6		%		80-120	06-JUN-17
Antimony (Sb)-Total			107.1		%		80-120	06-JUN-17
Arsenic (As)-Total			100.1		%		80-120	06-JUN-17
Barium (Ba)-Total			103.5		%		80-120	06-JUN-17
Beryllium (Be)-Total			102.0		%		80-120	06-JUN-17
Bismuth (Bi)-Total			96.6		%		80-120	06-JUN-17
Boron (B)-Total			97.5		%		80-120	06-JUN-17
Cadmium (Cd)-Total			100.8		%		80-120	06-JUN-17
Calcium (Ca)-Total			103.7		%		80-120	06-JUN-17
Cesium (Cs)-Total			105.8		%		80-120	06-JUN-17
Chromium (Cr)-Total			99.0		%		80-120	06-JUN-17
Cobalt (Co)-Total			99.2		%		80-120	06-JUN-17
Copper (Cu)-Total			96.9		%		80-120	06-JUN-17
Iron (Fe)-Total			106.5		%		80-120	06-JUN-17
Lead (Pb)-Total			97.2		%		80-120	06-JUN-17
Lithium (Li)-Total			104.6		%		80-120	06-JUN-17
Magnesium (Mg)-Total			102.8		%		80-120	06-JUN-17
Manganese (Mn)-Total			101.6		%		80-120	06-JUN-17
Molybdenum (Mo)-Total			98.5		%		80-120	06-JUN-17
Nickel (Ni)-Total			98.8		%		80-120	06-JUN-17
Phosphorus (P)-Total			104.9		%		70-130	06-JUN-17
Potassium (K)-Total			107.0		%		80-120	06-JUN-17
Rubidium (Rb)-Total			103.1		%		80-120	06-JUN-17
Selenium (Se)-Total			96.7		%		80-120	06-JUN-17
Silicon (Si)-Total			110.5		%		60-140	06-JUN-17
Silver (Ag)-Total			109.9		%		80-120	06-JUN-17
Sodium (Na)-Total			102.1		%		80-120	06-JUN-17
Strontium (Sr)-Total			99.5		%		80-120	06-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 21 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3742306							
WG2540904-10	LCS							
Sulfur (S)-Total			102.8		%		80-120	06-JUN-17
Tellurium (Te)-Total			95.7		%		80-120	06-JUN-17
Thallium (Tl)-Total			96.7		%		80-120	06-JUN-17
Thorium (Th)-Total			95.0		%		80-120	06-JUN-17
Tin (Sn)-Total			104.2		%		80-120	06-JUN-17
Titanium (Ti)-Total			94.2		%		80-120	06-JUN-17
Tungsten (W)-Total			99.4		%		80-120	06-JUN-17
Uranium (U)-Total			97.2		%		80-120	06-JUN-17
Vanadium (V)-Total			99.9		%		80-120	06-JUN-17
Zinc (Zn)-Total			93.8		%		80-120	06-JUN-17
Zirconium (Zr)-Total			98.0		%		80-120	06-JUN-17
WG2541096-2	LCS							
Aluminum (Al)-Total			105.6		%		80-120	06-JUN-17
Antimony (Sb)-Total			117.0		%		80-120	06-JUN-17
Arsenic (As)-Total			105.8		%		80-120	06-JUN-17
Barium (Ba)-Total			109.1		%		80-120	06-JUN-17
Beryllium (Be)-Total			107.6		%		80-120	06-JUN-17
Bismuth (Bi)-Total			99.7		%		80-120	06-JUN-17
Boron (B)-Total			95.7		%		80-120	06-JUN-17
Cadmium (Cd)-Total			110.6		%		80-120	06-JUN-17
Calcium (Ca)-Total			109.7		%		80-120	06-JUN-17
Cesium (Cs)-Total			112.4		%		80-120	06-JUN-17
Chromium (Cr)-Total			103.4		%		80-120	06-JUN-17
Cobalt (Co)-Total			106.2		%		80-120	06-JUN-17
Copper (Cu)-Total			102.6		%		80-120	06-JUN-17
Iron (Fe)-Total			112.9		%		80-120	06-JUN-17
Lead (Pb)-Total			104.6		%		80-120	06-JUN-17
Lithium (Li)-Total			109.2		%		80-120	06-JUN-17
Magnesium (Mg)-Total			107.9		%		80-120	06-JUN-17
Manganese (Mn)-Total			103.8		%		80-120	06-JUN-17
Molybdenum (Mo)-Total			106.8		%		80-120	06-JUN-17
Nickel (Ni)-Total			103.8		%		80-120	06-JUN-17
Phosphorus (P)-Total			105.8		%		70-130	06-JUN-17
Potassium (K)-Total			107.2		%		80-120	06-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 22 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3742306							
WG2541096-2	LCS							
Rubidium (Rb)-Total			108.8		%		80-120	06-JUN-17
Selenium (Se)-Total			102.9		%		80-120	06-JUN-17
Silicon (Si)-Total			111.4		%		60-140	06-JUN-17
Silver (Ag)-Total			114.4		%		80-120	06-JUN-17
Sodium (Na)-Total			100.0		%		80-120	06-JUN-17
Strontium (Sr)-Total			105.4		%		80-120	06-JUN-17
Sulfur (S)-Total			108.4		%		80-120	06-JUN-17
Tellurium (Te)-Total			105.5		%		80-120	06-JUN-17
Thallium (Tl)-Total			101.8		%		80-120	06-JUN-17
Thorium (Th)-Total			103.8		%		80-120	06-JUN-17
Tin (Sn)-Total			113.2		%		80-120	06-JUN-17
Titanium (Ti)-Total			99.3		%		80-120	06-JUN-17
Tungsten (W)-Total			106.7		%		80-120	06-JUN-17
Uranium (U)-Total			104.1		%		80-120	06-JUN-17
Vanadium (V)-Total			104.4		%		80-120	06-JUN-17
Zinc (Zn)-Total			98.9		%		80-120	06-JUN-17
Zirconium (Zr)-Total			104.9		%		80-120	06-JUN-17
WG2540904-9	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	06-JUN-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Barium (Ba)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Boron (B)-Total			<0.010		mg/L		0.01	06-JUN-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	06-JUN-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	06-JUN-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Iron (Fe)-Total			<0.010		mg/L		0.01	06-JUN-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	06-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 23 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB		Water						
Batch	R3742306							
WG2540904-9	MB							
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	06-JUN-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	06-JUN-17
Potassium (K)-Total			<0.050		mg/L		0.05	06-JUN-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Silicon (Si)-Total			<0.10		mg/L		0.1	06-JUN-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Sodium (Na)-Total			<0.050		mg/L		0.05	06-JUN-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Sulfur (S)-Total			<0.50		mg/L		0.5	06-JUN-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Thorium (Th)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Tin (Sn)-Total			0.00052	B	mg/L		0.0001	06-JUN-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	06-JUN-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	06-JUN-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	06-JUN-17
WG2541096-1		MB						
Aluminum (Al)-Total			<0.0030		mg/L		0.003	06-JUN-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Barium (Ba)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Boron (B)-Total			<0.010		mg/L		0.01	06-JUN-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	06-JUN-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	06-JUN-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	06-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 24 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3742306							
WG2541096-1	MB							
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Iron (Fe)-Total			<0.010		mg/L		0.01	06-JUN-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	06-JUN-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	06-JUN-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	06-JUN-17
Potassium (K)-Total			<0.050		mg/L		0.05	06-JUN-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	06-JUN-17
Silicon (Si)-Total			<0.10		mg/L		0.1	06-JUN-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Sodium (Na)-Total			<0.050		mg/L		0.05	06-JUN-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Sulfur (S)-Total			<0.50		mg/L		0.5	06-JUN-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	06-JUN-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Thorium (Th)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	06-JUN-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	06-JUN-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	06-JUN-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	06-JUN-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	06-JUN-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	06-JUN-17
Batch	R3744202							
WG2543922-2	LCS							
Aluminum (Al)-Total			98.9		%		80-120	09-JUN-17
Antimony (Sb)-Total			106.8		%		80-120	09-JUN-17
Arsenic (As)-Total			97.0		%		80-120	09-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 25 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3744202							
WG2543922-2	LCS							
Barium (Ba)-Total			107.7		%		80-120	09-JUN-17
Beryllium (Be)-Total			101.9		%		80-120	09-JUN-17
Bismuth (Bi)-Total			98.1		%		80-120	09-JUN-17
Boron (B)-Total			99.4		%		80-120	09-JUN-17
Cadmium (Cd)-Total			102.0		%		80-120	09-JUN-17
Calcium (Ca)-Total			105.0		%		80-120	09-JUN-17
Cesium (Cs)-Total			107.0		%		80-120	09-JUN-17
Chromium (Cr)-Total			97.4		%		80-120	09-JUN-17
Cobalt (Co)-Total			103.2		%		80-120	09-JUN-17
Copper (Cu)-Total			102.7		%		80-120	09-JUN-17
Iron (Fe)-Total			100.2		%		80-120	09-JUN-17
Lead (Pb)-Total			101.3		%		80-120	09-JUN-17
Lithium (Li)-Total			99.2		%		80-120	09-JUN-17
Magnesium (Mg)-Total			98.5		%		80-120	09-JUN-17
Manganese (Mn)-Total			94.3		%		80-120	09-JUN-17
Molybdenum (Mo)-Total			106.5		%		80-120	09-JUN-17
Nickel (Ni)-Total			98.0		%		80-120	09-JUN-17
Phosphorus (P)-Total			102.5		%		70-130	09-JUN-17
Potassium (K)-Total			101.6		%		80-120	09-JUN-17
Rubidium (Rb)-Total			101.2		%		80-120	09-JUN-17
Selenium (Se)-Total			95.1		%		80-120	09-JUN-17
Silicon (Si)-Total			98.1		%		60-140	09-JUN-17
Silver (Ag)-Total			105.3		%		80-120	09-JUN-17
Sodium (Na)-Total			95.6		%		80-120	09-JUN-17
Strontium (Sr)-Total			109.7		%		80-120	09-JUN-17
Sulfur (S)-Total			97.4		%		80-120	09-JUN-17
Tellurium (Te)-Total			99.3		%		80-120	09-JUN-17
Thallium (Tl)-Total			97.5		%		80-120	09-JUN-17
Thorium (Th)-Total			102.1		%		80-120	09-JUN-17
Tin (Sn)-Total			106.4		%		80-120	09-JUN-17
Titanium (Ti)-Total			94.6		%		80-120	09-JUN-17
Tungsten (W)-Total			100.9		%		80-120	09-JUN-17
Uranium (U)-Total			101.6		%		80-120	09-JUN-17
Vanadium (V)-Total			93.6		%		80-120	09-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 26 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3744202							
WG2543922-2	LCS							
Zinc (Zn)-Total			89.6		%		80-120	09-JUN-17
Zirconium (Zr)-Total			101.4		%		80-120	09-JUN-17
WG2543922-1	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	09-JUN-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Barium (Ba)-Total			0.000131	B	mg/L		0.00005	09-JUN-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	09-JUN-17
Boron (B)-Total			<0.010		mg/L		0.01	09-JUN-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	09-JUN-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	09-JUN-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	09-JUN-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	09-JUN-17
Iron (Fe)-Total			<0.010		mg/L		0.01	09-JUN-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	09-JUN-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	09-JUN-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	09-JUN-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	09-JUN-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	09-JUN-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	09-JUN-17
Potassium (K)-Total			<0.050		mg/L		0.05	09-JUN-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	09-JUN-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	09-JUN-17
Silicon (Si)-Total			<0.10		mg/L		0.1	09-JUN-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	09-JUN-17
Sodium (Na)-Total			<0.050		mg/L		0.05	09-JUN-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	09-JUN-17
Sulfur (S)-Total			<0.50		mg/L		0.5	09-JUN-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	09-JUN-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	09-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 27 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3744202							
WG2543922-1	MB							
Thorium (Th)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	09-JUN-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	09-JUN-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	09-JUN-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	09-JUN-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	09-JUN-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	09-JUN-17
NH3-COL-TB								
	Water							
Batch	R3740889							
WG2541679-14	LCS							
Ammonia, Total (as N)			100.4		%		85-115	06-JUN-17
WG2541679-18	LCS							
Ammonia, Total (as N)			99.6		%		85-115	06-JUN-17
WG2541679-13	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	06-JUN-17
WG2541679-17	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	06-JUN-17
Batch	R3743569							
WG2544071-6	LCS							
Ammonia, Total (as N)			104.2		%		85-115	08-JUN-17
WG2544071-5	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	08-JUN-17
NO2-IC-N-TB								
	Water							
Batch	R3739661							
WG2540946-12	DUP	L1935823-2						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	04-JUN-17
WG2540946-16	DUP	L1935823-11						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	04-JUN-17
WG2540946-10	LCS							
Nitrite (as N)			99.2		%		90-110	04-JUN-17
WG2540946-14	LCS							
Nitrite (as N)			101.6		%		90-110	04-JUN-17
WG2540946-13	MB							
Nitrite (as N)			<0.010		mg/L		0.01	04-JUN-17
WG2540946-9	MB							



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 30 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-COL-TB								
	Water							
Batch	R3740504							
WG2541322-2	LCS							
	Orthophosphate-Dissolved (as P)		98.2		%		80-120	05-JUN-17
WG2541322-6	LCS							
	Orthophosphate-Dissolved (as P)		94.8		%		80-120	05-JUN-17
WG2541322-1	MB							
	Orthophosphate-Dissolved (as P)		<0.0030		mg/L		0.003	05-JUN-17
WG2541322-5	MB							
	Orthophosphate-Dissolved (as P)		<0.0030		mg/L		0.003	05-JUN-17
WG2541322-7	MS	L1935823-14						
	Orthophosphate-Dissolved (as P)		89.0		%		70-130	05-JUN-17
SO4-IC-N-TB								
	Water							
Batch	R3739661							
WG2540946-12	DUP	L1935823-2						
	Sulfate (SO4)	0.84	0.74		mg/L	14	20	04-JUN-17
WG2540946-16	DUP	L1935823-11						
	Sulfate (SO4)	1.81	1.81		mg/L	0.0	20	04-JUN-17
WG2540946-10	LCS							
	Sulfate (SO4)		99.9		%		90-110	04-JUN-17
WG2540946-14	LCS							
	Sulfate (SO4)		100.6		%		90-110	04-JUN-17
WG2540946-13	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	04-JUN-17
WG2540946-9	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	04-JUN-17
WG2540946-11	MS	L1935823-2						
	Sulfate (SO4)		107.8		%		75-125	04-JUN-17
WG2540946-15	MS	L1935823-11						
	Sulfate (SO4)		100.6		%		75-125	04-JUN-17
Batch	R3740396							
WG2541579-2	LCS							
	Sulfate (SO4)		108.1		%		90-110	05-JUN-17
WG2541579-1	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	05-JUN-17
Batch	R3741180							
WG2542404-6	LCS							
	Sulfate (SO4)		101.4		%		90-110	06-JUN-17
WG2542404-5	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	06-JUN-17



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 31 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TDS-TB		Water						
Batch R3741348								
WG2542415-2	LCS							
Total Dissolved Solids			93.1		%		85-115	06-JUN-17
WG2542415-1	MB							
Total Dissolved Solids			<10		mg/L		10	06-JUN-17
Batch R3741967								
WG2542202-2	LCS							
Total Dissolved Solids			96.9		%		85-115	06-JUN-17
WG2542202-1	MB							
Total Dissolved Solids			<10		mg/L		10	06-JUN-17
Batch R3743063								
WG2542994-2	LCS							
Total Dissolved Solids			96.4		%		85-115	07-JUN-17
WG2542994-1	MB							
Total Dissolved Solids			<10		mg/L		10	07-JUN-17
TKN-COL-TB		Water						
Batch R3746518								
WG2546625-3	DUP	L1935823-2						
Total Kjeldahl Nitrogen		0.36	0.31		mg/L	15	20	13-JUN-17
WG2546625-2	LCS							
Total Kjeldahl Nitrogen			111.2		%		75-125	13-JUN-17
WG2546625-1	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	13-JUN-17
WG2546625-4	MS	L1935823-2						
Total Kjeldahl Nitrogen			97.5		%		70-130	13-JUN-17
TOC-TB		Water						
Batch R3740502								
WG2541339-3	DUP	L1935823-7						
Total Organic Carbon		8.2	8.3		mg/L	0.6	20	05-JUN-17
WG2541339-2	LCS							
Total Organic Carbon			101.7		%		80-120	05-JUN-17
WG2541339-1	MB							
Total Organic Carbon			<1.0		mg/L		1	05-JUN-17
WG2541339-4	MS	L1935823-7						
Total Organic Carbon			109.6		%		70-130	05-JUN-17
TSS-L-TB		Water						



Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 32 of 33

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-L-TB	Water							
Batch	R3740606							
WG2541687-5	LCS							
Total Suspended Solids			96.4		%		85-115	05-JUN-17
WG2541687-4	MB							
Total Suspended Solids			<1.0		mg/L		1	05-JUN-17

Quality Control Report

Workorder: L1935823

Report Date: 20-JUN-17

Page 33 of 33

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

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

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



L1935823-COFC

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company: Palmer Environmental Consulting Group		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply											
Contact: Nicole Lower		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO			PRIORITY (Business Days)		4 day [P4] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/>					
Phone: 416-571-3731		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>						Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>					
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:											
Street: 374 Wellington Street W.		Email 1 or Fax jake@pecg.ca			For tests that can not be performed according to the service level selected, you will be contacted.											
City/Province: Toronto ON		Email 2 nicola@pecg.ca			Analysis Request											
Postal Code: M5V1E3		Email 3			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
Invoice To		Invoice Distribution														
Same as Report To <input checked="" type="checkbox"/> <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Copy of Invoice with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO		Email 1 or Fax nicola@pecg.ca														
Company:		Email 2 jake@pecg.ca														
Contact:																
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:		AFE/Cost Center:		PO#												
Job #: Ambershaw Mining Project		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only) L1935823		ALS Contact: Christine Paradis		Sampler: JMQ												
ALS Sample # (lab use only)		Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	General Chem	Dissolved Metals	Total Metals	Nutrients	Hg DISS	Hg total	DOC	TSS	Number of Containers	
		ML1		31-May-15	18:06	Water	X	X	X	X	X	X	X	X	9	
		ML2		"	17:41	Water										
		BGL5		"	15:15	Water										
		BGL3		31-May-17	14:01	Water										
		TC2		Jun 1-17	9:30	Water										
		M4		↓	10:30	Water										
		SL6		↓	11:15	Water										
		SL5		↓	12:30	Water										
		BGL1		↓	2:30	Water										
		TC1		↓	4:30	Water										
		BGL2		Jun 1-17	10:45	Water	X	X	X	X	X	X	X	X	9	
		Bending Lake 1		"	9:01	Water	X	X	X	X	X	X	X	X	9	
Drinking Water (DW) Samples (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)														
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO																
		SAMPLE CONDITION AS RECEIVED (lab use only)														
		Frozen <input type="checkbox"/>		SIF Observations Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Ice Packs <input checked="" type="checkbox"/>		Ice Cubes <input type="checkbox"/>		Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooling Initiated <input checked="" type="checkbox"/>				
		INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C									
		11.4														
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)										
Released by: [Signature] Date: June 1, 2017 Time: 19pm		Received by: CP Date: 01-Jun-17 Time: 9:30 pm		Received by: - Date: - Time: -		Received by: - Date: - Time: -		Received by: - Date: - Time: -		Received by: - Date: - Time: -		Received by: - Date: - Time: -				

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

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

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



www.alsglobal.com

Report To	Contact and company name below will appear on the final report	Report Format / Distribution	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)
Company:	Palmer Environmental Consulting Group Inc.	Quality Control (QC) Report with Report	<input type="checkbox"/> YES <input type="checkbox"/> NO
Contact:	Jake McQueen	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked	
Phone:	647-795-8153	Select Distribution:	<input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX

Street:	374 Wellington Street West, Suite 3	Email 1	jake@pecg.ca
City/Province:	Toronto, ON	Email 2	
Postal Code:	M5V 1E3	Email 3	

Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Email 1	jake@pecg.ca
Company:		Email 2	
Contact:			

Project Information	ALS Account # / Quote #: Q82364	Oil and Gas Required Fields (client use)	
Job #:	Ambershaw	AFE/Cost Center:	PO#
PO / AFE:		Major/Minor Code:	Routing Code:
LSD:		Requisitioner:	
		Location:	

ALS Lab Work Order # (lab use only)	L1935823	ALS Contact:		Sampler:	
-------------------------------------	----------	--------------	--	----------	--

ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type
	Bending Lake 2	Jun-17	9:22	Surface Water
	Bending Lake 3	Jun-17	9:41	Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water
				Surface Water

Select Service Level Below - Please confirm all ESP TATs with your AM - surcharter

Regular [R] Standard TAT if received by 3 pm - business day

4 day [P4]

3 day [P3]

2 day [P2]

Emergency

Date and Time Required for: all ESP TATs

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

1 Business day (E) Same Day, Weekend Statutory holiday (E) dd-mmm-yy

Indicate Filtered (F), Preserved (P) or Filtered and Preserved (FP) below					Number of Containers
Addity, Alkalinity, Br, Cl, DOC, Conductivity, F, Hardness, Dissolved Metals & Mercury, Total Metals & Mercury, Total Nitrogen, NH3, NO2, NO3, Total Phosphorus, pH, PO4, SO4, TDS, TOC, Low Level TSS					
x	x	x	x	x	29
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	
x	x	x	x	x	

Drinking Water (DW) Samples¹ (client use)	Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	

SAMPLE CONDITION AS RECEIVED (lab use only)

Frozen

Ice Packs Ice Cubes

Cooling Initiated

SIF Observations Yes No

Custody seal intact Yes No

INITIAL COOLER TEMPERATURES °C: 11.4

FINAL COOLER TEMPERATURES °C:

SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)	
Released by: <i>[Signature]</i>	Date: June 16, 2017	Time: 9pm	Received by: <i>[Signature]</i>	Date: 01-JUN-17	Time: 9:20am	Received by:	Date:



PALMER ENVIRONMENTAL CONSULTING
GROUP INC. TORONTO
ATTN: Rob Frizzel
374 Wellington Street West
Suite 3
Toronto ON M5V 1E3

Date Received: 15-AUG-17
Report Date: 30-AUG-17 15:04 (MT)
Version: FINAL

Client Phone: 647-795-8153

Certificate of Analysis

Lab Work Order #: L1975181
Project P.O. #: NOT SUBMITTED
Job Reference: AMBERSHAW MINING PROJECT
C of C Numbers:
Legal Site Desc:

<Original signed by>

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-1 BGL-5 Sampled By: JMQ on 11-AUG-17 @ 10:30 Matrix: WATER							
Physical Tests							
Conductivity (EC)	23.1		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.84		0.50	mg/L		18-AUG-17	
pH	6.87		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.1		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	21		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.5		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.120		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.25		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.032		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	17-AUG-17	20-AUG-17	R3804625
Total Nitrogen	<0.25		0.25	mg/L		21-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	<0.0060		0.0060	mg/L	22-AUG-17	23-AUG-17	R3807892
Sulfate (SO4)	1.74		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					19-AUG-17	R3796423
Dissolved Organic Carbon	5.9		1.0	mg/L	19-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	6.2		1.0	mg/L		19-AUG-17	R3804563
Total Metals							
Aluminum (Al)-Total	0.0262		0.0030	mg/L	17-AUG-17	17-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Arsenic (As)-Total	0.00021		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Barium (Ba)-Total	0.00402		0.000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	17-AUG-17	17-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Calcium (Ca)-Total	2.61		0.050	mg/L	17-AUG-17	17-AUG-17	R3803313
Cesium (Cs)-Total	0.000020		0.000010	mg/L	17-AUG-17	17-AUG-17	R3803313
Chromium (Cr)-Total	0.00015		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Copper (Cu)-Total	<0.00050		0.00050	mg/L	17-AUG-17	17-AUG-17	R3803313
Iron (Fe)-Total	0.068		0.010	mg/L	17-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	17-AUG-17	17-AUG-17	R3803313
Magnesium (Mg)-Total	0.604		0.0050	mg/L	17-AUG-17	17-AUG-17	R3803313
Manganese (Mn)-Total	0.00462		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-1 BGL-5							
Sampled By: JMQ on 11-AUG-17 @ 10:30							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000066		0.000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	17-AUG-17	17-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	17-AUG-17	17-AUG-17	R3803313
Potassium (K)-Total	0.420		0.050	mg/L	17-AUG-17	17-AUG-17	R3803313
Rubidium (Rb)-Total	0.00126		0.00020	mg/L	17-AUG-17	17-AUG-17	R3803313
Selenium (Se)-Total	0.000058		0.000050	mg/L	17-AUG-17	17-AUG-17	R3803313
Silicon (Si)-Total	1.41		0.10	mg/L	17-AUG-17	17-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	17-AUG-17	17-AUG-17	R3803313
Sodium (Na)-Total	0.960		0.050	mg/L	17-AUG-17	17-AUG-17	R3803313
Strontium (Sr)-Total	0.0117		0.00020	mg/L	17-AUG-17	17-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	17-AUG-17	17-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	17-AUG-17	17-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	17-AUG-17	17-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	17-AUG-17	17-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	17-AUG-17	17-AUG-17	R3803313
Uranium (U)-Total	0.000074		0.000010	mg/L	17-AUG-17	17-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	17-AUG-17	17-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	17-AUG-17	17-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	17-AUG-17	17-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					17-AUG-17	R3802251
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0194		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00391		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.52		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00027		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.037		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-1 BGL-5 Sampled By: JMQ on 11-AUG-17 @ 10:30 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.616		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00066		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	17-AUG-17	17-AUG-17	R3802594
Molybdenum (Mo)-Dissolved	0.000075		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.404		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00117		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.29		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.962		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0112		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000064		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0014		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-2 BENDING LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 11:40 Matrix: WATER							
Physical Tests							
Conductivity (EC)	23.0		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.67		0.50	mg/L		18-AUG-17	
pH	6.87		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	30		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.5		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.070		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.29		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.025		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-2 BENDING LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 11:40 Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0032		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.17		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	6.2		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	6.4		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0274		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00397		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	2.55		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00017		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.062		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.617		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00422		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000088		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.402		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00132		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000106		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.44		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.919		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0118		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.51		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-2 BENDING LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 11:40 Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000075		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0227		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00401		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000141		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.47		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00049		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.034		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.608		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00077		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000073		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.407		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00125		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000086		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.33		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.999		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0112		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-2 BENDING LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 11:40 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	0.000018		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000065		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0186	DTC	0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-3 BENDING LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 11:56 Matrix: WATER							
Physical Tests							
Conductivity (EC)	24.0		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.87		0.50	mg/L		18-AUG-17	
pH	6.63		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	30		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	4.6		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.6		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.28		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.030		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	0.042		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0046		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.82		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	5.8		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	5.8		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0350		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-3 BENDING LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 11:56 Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00432		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000135		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	2.65		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000015		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00018		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.063		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.626		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00834		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.425		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00133		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000095		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.83		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.917		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0120		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.92		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000066		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0272		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-3 BENDING LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 11:56 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00427		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000131		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.56		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00294	DTC	0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.026		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000204	DTC	0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.604		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00294		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000054		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.421		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00127		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.79		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.927		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0115		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.53		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000058		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0067		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-4 BENDING LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 12:03 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-4 BENDING LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 12:03 Matrix: WATER							
Physical Tests							
Conductivity (EC)	24.5		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	9.02		0.50	mg/L		18-AUG-17	
pH	6.58		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	30		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	5.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.5		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.026		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.28		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.024		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	0.105		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0046		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.32		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	5.8		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	5.8		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0435		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00489		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000221		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	2.69		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000015		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00064		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.101		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	0.000058		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.654		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00836		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-4 BENDING LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 12:03 Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000057		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.442		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00138		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000061		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	2.05		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.951		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0123		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	0.00037		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000063		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	0.0038		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	0.000067		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0360		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00481		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000207		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.61		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00035		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.043		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-4 BENDING LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 12:03 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.610		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00325		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000055		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.426		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00131		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.96		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.954		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0116		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.57		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000052		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0045		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	0.00161	DTC	0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-5 BGL-2 Sampled By: JMQ on 11-AUG-17 @ 12:33 Matrix: WATER							
Physical Tests							
Conductivity (EC)	23.3		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.55		0.50	mg/L		17-AUG-17	
pH	7.27		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	30		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.2		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.2		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.32		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.025		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-5 BGL-2							
Sampled By: JMQ on 11-AUG-17 @ 12:33							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.27		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.27		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0034		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.29		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	6.3		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	6.5		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0333		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00439		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.000328		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	2.55		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00027		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.049		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	0.000145		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.618		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00222		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000072		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.419		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00131		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000095		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.40		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.933		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0117		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.54		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-5 BGL-2							
Sampled By: JMQ on 11-AUG-17 @ 12:33							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00064	DLM	0.00064	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000074		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0218		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00407		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000512		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.44		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00028		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.029		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.594		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00062		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.410		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00124		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.34		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.951		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0110		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-5 BGL-2 Sampled By: JMQ on 11-AUG-17 @ 12:33 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000064		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0014		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-6 BGL-3 Sampled By: JMQ on 11-AUG-17 @ 12:59 Matrix: WATER							
Physical Tests							
Conductivity (EC)	47.3		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	20.4		0.50	mg/L		17-AUG-17	
pH	7.22		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.6		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	46		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.9		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	23.8		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.034		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.15		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.024		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.44		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.44		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0108		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.58		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	9.6		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	9.6		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0121		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00024		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-6 BGL-3							
Sampled By: JMQ on 11-AUG-17 @ 12:59							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.0102		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000237		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	7.02		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00019		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.363		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	0.000088		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.888		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.0246		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000076		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.989		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00167		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.29		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.996		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0201		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.80		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	0.00035		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000020		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0060		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-6 BGL-3 Sampled By: JMQ on 11-AUG-17 @ 12:59 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00951		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000323		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	6.76		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00037		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.218		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000067		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.851		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00571		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000053		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.999		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00164		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000076		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.13		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.06		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0188		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.56		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0065		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-7 BEAK LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 15:15 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-7 BEAK LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 15:15 Matrix: WATER							
Physical Tests							
Conductivity (EC)	28.9		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	11.0		0.50	mg/L		17-AUG-17	
pH	7.02		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	37		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.1		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	11.2		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.04		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.32		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.32		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0034		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.60		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	8.3		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	7.8		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0152		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00439		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000054		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	3.55		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00018		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00065		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.025		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.633		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00648		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-7 BEAK LAKE 1							
Sampled By: JMQ on 11-AUG-17 @ 15:15							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000055		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.519		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00192		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000067		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.70		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	1.21		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0111		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00437		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000087		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	3.41		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00086		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-7 BEAK LAKE 1 Sampled By: JMQ on 11-AUG-17 @ 15:15 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.601		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00038		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.512		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00185		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.56		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.21		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0105		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0051		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-8 BEAK LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 15:23 Matrix: WATER							
Physical Tests							
Conductivity (EC)	29.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	11.1		0.50	mg/L		17-AUG-17	
pH	6.68		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	31		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	4.8		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.7		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.01		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-8 BEAK LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 15:23 Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0050		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.70		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	6.8		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	7.2		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0176		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00531		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000076		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	3.59		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00081		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.044		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.635		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.0111		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.541		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00206		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000069		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.89		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	1.18		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0115		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-8 BEAK LAKE 2							
Sampled By: JMQ on 11-AUG-17 @ 15:23							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000011		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0116		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00543		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000055		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	3.46		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00105		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.012		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.602		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00202		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000052		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.527		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00186		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.78		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.17		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-8 BEAK LAKE 2 Sampled By: JMQ on 11-AUG-17 @ 15:23 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0020		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-9 BEAK LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 15:39 Matrix: WATER							
Physical Tests							
Conductivity (EC)	29.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	11.1		0.50	mg/L		17-AUG-17	
pH	6.66		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	5.4		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	34		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	4.9		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.8		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.092		0.020	mg/L		16-AUG-17	R3801650
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.02		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		17-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0090		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.58		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					17-AUG-17	R3802527
Dissolved Organic Carbon	6.8		1.0	mg/L	17-AUG-17	17-AUG-17	R3803215
Total Organic Carbon	7.2		1.0	mg/L		17-AUG-17	R3803026
Total Metals							
Aluminum (Al)-Total	0.0744		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00026		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-9 BEAK LAKE 3							
Sampled By: JMQ on 11-AUG-17 @ 15:39							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00695		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000315		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	3.69		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000023		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00035		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00091		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.336		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	0.000201		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.650		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.0757		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000097		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.553		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00208		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000085		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	2.10		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	1.23		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0118		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	0.00203		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000019		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	0.0040		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0123		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-9 BEAK LAKE 3 Sampled By: JMQ on 11-AUG-17 @ 15:39 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00015		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00571		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000185		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	3.45		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00014		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00060		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.024		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.603		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00786		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000079		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.536		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00189		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.84		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.16		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0018		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-10 BL2 Sampled By: JMQ on 11-AUG-17 @ 15:52 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-10 BL2							
Sampled By: JMQ on 11-AUG-17 @ 15:52							
Matrix: WATER							
Physical Tests							
Conductivity (EC)	28.8		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	11.4		0.50	mg/L		19-AUG-17	
pH	7.03		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	29		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.2		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.9		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.03		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.26		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.26		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.71		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					18-AUG-17	R3803395
Dissolved Organic Carbon	7.5		1.0	mg/L	18-AUG-17	18-AUG-17	R3803919
Total Organic Carbon	7.7		1.0	mg/L		18-AUG-17	R3803557
Total Metals							
Aluminum (Al)-Total	0.0158		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00022		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00449		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000145		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	3.57		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00061		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.025		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.636		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00596		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-10 BL2							
Sampled By: JMQ on 11-AUG-17 @ 15:52							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000056		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.530		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00198		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000085		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.68		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	1.28		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					18-AUG-17	R3803879
Aluminum (Al)-Dissolved	0.0125		0.0020	mg/L	18-AUG-17	18-AUG-17	R3803888
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Arsenic (As)-Dissolved	0.00019		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Barium (Ba)-Dissolved	0.00477		0.000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Boron (B)-Dissolved	<0.010		0.010	mg/L	18-AUG-17	18-AUG-17	R3803888
Cadmium (Cd)-Dissolved	0.0000186		0.0000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Calcium (Ca)-Dissolved	3.52		0.050	mg/L	18-AUG-17	18-AUG-17	R3803888
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	18-AUG-17	18-AUG-17	R3803888
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Copper (Cu)-Dissolved	0.00054		0.00020	mg/L	18-AUG-17	18-AUG-17	R3803888
Iron (Fe)-Dissolved	0.011		0.010	mg/L	18-AUG-17	18-AUG-17	R3803888
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	18-AUG-17	18-AUG-17	R3803888

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-10 BL2 Sampled By: JMQ on 11-AUG-17 @ 15:52 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.634		0.0050	mg/L	18-AUG-17	18-AUG-17	R3803888
Manganese (Mn)-Dissolved	0.00086		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	18-AUG-17	18-AUG-17	R3803888
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	18-AUG-17	18-AUG-17	R3803888
Potassium (K)-Dissolved	0.564		0.050	mg/L	18-AUG-17	18-AUG-17	R3803888
Rubidium (Rb)-Dissolved	0.00181		0.00020	mg/L	18-AUG-17	18-AUG-17	R3803888
Selenium (Se)-Dissolved	0.000067		0.000050	mg/L	18-AUG-17	18-AUG-17	R3803888
Silicon (Si)-Dissolved	1.64		0.050	mg/L	18-AUG-17	18-AUG-17	R3803888
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	18-AUG-17	18-AUG-17	R3803888
Sodium (Na)-Dissolved	1.23		0.050	mg/L	18-AUG-17	18-AUG-17	R3803888
Strontium (Sr)-Dissolved	0.0109		0.00020	mg/L	18-AUG-17	18-AUG-17	R3803888
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	18-AUG-17	18-AUG-17	R3803888
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	18-AUG-17	18-AUG-17	R3803888
Thallium (Tl)-Dissolved	0.000017		0.000010	mg/L	18-AUG-17	18-AUG-17	R3803888
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	18-AUG-17	18-AUG-17	R3803888
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	18-AUG-17	18-AUG-17	R3803888
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	18-AUG-17	18-AUG-17	R3803888
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	18-AUG-17	18-AUG-17	R3803888
Zinc (Zn)-Dissolved	0.0060		0.0010	mg/L	18-AUG-17	18-AUG-17	R3803888
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	18-AUG-17	18-AUG-17	R3803888
L1975181-11 BL1 Sampled By: JMQ on 11-AUG-17 @ 16:29 Matrix: WATER							
Physical Tests							
Conductivity (EC)	28.6		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	10.9		0.50	mg/L		18-AUG-17	
pH	6.96		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	36		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.7		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.074		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.01		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-11 BL1							
Sampled By: JMQ on 11-AUG-17 @ 16:29							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.33		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.33		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0065		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.58		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					18-AUG-17	R3803395
Dissolved Organic Carbon	8.5		1.0	mg/L	18-AUG-17	18-AUG-17	R3803919
Total Organic Carbon	8.6		1.0	mg/L		18-AUG-17	R3803557
Total Metals							
Aluminum (Al)-Total	0.0316		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00395		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.0000349		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	3.60		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00024		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00078		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.095		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	0.000097		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	0.610		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.0144		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000055		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.522		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00188		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000076		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.75		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	1.23		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0110		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-11 BL1							
Sampled By: JMQ on 11-AUG-17 @ 16:29							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	0.00033		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	0.0043		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0164		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00019		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00407		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000702	DTC	0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	3.41		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00073		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.048		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000119		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.573		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00678		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.512		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00183		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000066		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.63		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.20		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0104		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-11 BL1 Sampled By: JMQ on 11-AUG-17 @ 16:29 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000011		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0095		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-12 SL2 Sampled By: JMQ on 12-AUG-17 @ 10:00 Matrix: WATER							
Physical Tests							
Conductivity (EC)	72.7		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	33.3		0.50	mg/L		17-AUG-17	
pH	7.55		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	53		13	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	35.3		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.022		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.43		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0054		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.86		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	5.6		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	4.8		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0115		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00029		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-12 SL2							
Sampled By: JMQ on 12-AUG-17 @ 10:00							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00638		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	0.000121		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	12.3		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00038		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00073		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	0.019		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	1.08		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00350		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000121		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.607		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000076		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.32		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.969		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0273		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.79		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	0.00037		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-12 SL2 Sampled By: JMQ on 12-AUG-17 @ 10:00 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00620		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000124		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	11.7		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00057		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	1.01		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00036		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000108		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.586		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00106		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000077		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.19		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.961		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0255		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.72		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-13 STORMY LAKE 1 Sampled By: JMQ on 12-AUG-17 @ 11:30 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-13 STORMY LAKE 1 Sampled By: JMQ on 12-AUG-17 @ 11:30 Matrix: WATER							
Physical Tests							
Conductivity (EC)	72.6		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	33.1		0.50	mg/L		18-AUG-17	
pH	7.57		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.9		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	53		13	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	35.5		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.40		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0047		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.89		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	5.3		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	5.1		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0210		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Arsenic (As)-Total	0.00025		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Barium (Ba)-Total	0.00615		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Calcium (Ca)-Total	12.1		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Chromium (Cr)-Total	0.00014		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Copper (Cu)-Total	0.00077		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Iron (Fe)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802149
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802149
Magnesium (Mg)-Total	1.07		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802149
Manganese (Mn)-Total	0.00392		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-13 STORMY LAKE 1 Sampled By: JMQ on 12-AUG-17 @ 11:30 Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000185		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Potassium (K)-Total	0.600		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Rubidium (Rb)-Total	0.00108		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Selenium (Se)-Total	0.000076		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802149
Silicon (Si)-Total	1.29		0.10	mg/L	16-AUG-17	16-AUG-17	R3802149
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Sodium (Na)-Total	0.941		0.050	mg/L	16-AUG-17	16-AUG-17	R3802149
Strontium (Sr)-Total	0.0264		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Sulfur (S)-Total	0.87		0.50	mg/L	16-AUG-17	16-AUG-17	R3802149
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802149
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802149
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802149
Uranium (U)-Total	0.000011		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802149
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802149
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3802149
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802149
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0102		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00607		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000531	DTC	0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	11.6		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00065		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-13 STORMY LAKE 1 Sampled By: JMQ on 12-AUG-17 @ 11:30 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	1.01		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00059		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000113		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.584		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00099		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000075		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.18		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.928		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0257		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.72		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0024		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-14 STORMY LAKE 2 Sampled By: JMQ on 12-AUG-17 @ 11:35 Matrix: WATER							
Physical Tests							
Conductivity (EC)	73.1		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	33.1		0.50	mg/L		18-AUG-17	
pH	7.35		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	2.3		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	53		13	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	3.2		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	35.2		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.029		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.41		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-14 STORMY LAKE 2							
Sampled By: JMQ on 12-AUG-17 @ 11:35							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.26		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.26		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0063		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.89		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	4.7		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	5.1		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0118		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00028		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00646		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	11.9		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00080		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.023		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	1.06		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00494		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000141		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.613		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000103		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.56		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.936		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0262		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.85		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-14 STORMY LAKE 2							
Sampled By: JMQ on 12-AUG-17 @ 11:35							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	0.000021		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00039		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00657		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000130		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	11.6		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00061		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	1.03		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00047		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000107		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.604		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00102		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000078		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.43		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.972		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0255		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-14 STORMY LAKE 2 Sampled By: JMQ on 12-AUG-17 @ 11:35 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	0.70		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0036		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-15 STORMY LAKE 3 Sampled By: JMQ on 12-AUG-17 @ 12:15 Matrix: WATER							
Physical Tests							
Conductivity (EC)	73.3		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	33.5		0.50	mg/L		18-AUG-17	
pH	7.25		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	2.2		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	53		13	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	4.5		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	35.1		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.187		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.42		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0064		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	3.10		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	4.8		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	4.6		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0207		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00025		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-15 STORMY LAKE 3 Sampled By: JMQ on 12-AUG-17 @ 12:15 Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00642		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	12.1		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00012		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00071		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.025		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	1.07		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00495		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000112		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.606		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00111		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000087		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.84		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.937		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0261		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	1.45		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.0011	DLM	0.0011	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-15 STORMY LAKE 3 Sampled By: JMQ on 12-AUG-17 @ 12:15 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00645		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000061		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	11.7		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	1.04		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00113		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000111		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.613		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00110		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000055		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.85		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.966		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0253		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.74		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0040		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-16 BGL1 Sampled By: JMQ on 12-AUG-17 @ 14:20 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-16 BGL1 Sampled By: JMQ on 12-AUG-17 @ 14:20 Matrix: WATER							
Physical Tests							
Conductivity (EC)	17.6		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	5.13		0.50	mg/L		18-AUG-17	
pH	6.25		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	31		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	3.1		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	3.9		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.050		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	1.33		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.028		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.35		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.35		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0058		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.37		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	12.1	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	12.7		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.127		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00034		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00340		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.000615		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	1.40		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000019		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00033		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.174		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	0.000135		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.444		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00810		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-16 BGL1							
Sampled By: JMQ on 12-AUG-17 @ 14:20							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000051		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.386		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00119		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000127		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.04		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	1.52		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.00904		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00110		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000058		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	0.0034		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	0.000129		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.109		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00034		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00334		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.000585		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	1.35		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000015		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00027		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00048		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.120		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000107		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-16 BGL1 Sampled By: JMQ on 12-AUG-17 @ 14:20 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.426		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00376		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.384		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00111		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000082		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	0.948		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.49		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.00852		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	0.00059		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000050		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0056		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	0.000147		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-17 TC2-DUP Sampled By: JMQ on 13-AUG-17 @ 10:08 Matrix: WATER							
Physical Tests							
Conductivity (EC)	22.5		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.55		0.50	mg/L		18-AUG-17	
pH	6.85		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	19		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.3		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		22-AUG-17	R3807497
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.27		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.026		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-17 TC2-DUP							
Sampled By: JMQ on 13-AUG-17 @ 10:08							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	22-AUG-17	22-AUG-17	R3807444
Total Nitrogen	<0.25		0.25	mg/L		23-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0058		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.32		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	6.7	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	6.3	HTA	1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0325		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00379		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000354		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	2.50		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000019		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00017		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.101		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	0.000071		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.620		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00909		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000077		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.407		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00133		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000063		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.37		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.925		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0119		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.57		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-17 TC2-DUP							
Sampled By: JMQ on 13-AUG-17 @ 10:08							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00072		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000088		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0153		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00390		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000071		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.42		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00028		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.039		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.607		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00124		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000080		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.399		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00121		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000084		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.26		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.906		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-17 TC2-DUP Sampled By: JMQ on 13-AUG-17 @ 10:08 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	0.52		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000069		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0020		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-18 TC2 Sampled By: JMQ on 13-AUG-17 @ 10:08 Matrix: WATER							
Physical Tests							
Conductivity (EC)	22.7		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.48		0.50	mg/L		18-AUG-17	
pH	6.92		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	25		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	8.9		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.28		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.026		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0041		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.33		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	6.1	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	5.9		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0252		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00026		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-18 TC2							
Sampled By: JMQ on 13-AUG-17 @ 10:08							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00385		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000056		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	2.52		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000018		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00016		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.089		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.623		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00880		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000079		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.405		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00142		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000087		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.38		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.933		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0121		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.60		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000088		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0157		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-18 TC2 Sampled By: JMQ on 13-AUG-17 @ 10:08 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00019		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00379		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000086		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.42		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000018		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00030		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.040		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.593		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00125		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000090		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.395		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00122		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000073		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.26		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.905		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000070		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0017		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-19 BL4 Sampled By: JMQ on 13-AUG-17 @ 10:31 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-19 BL4 Sampled By: JMQ on 13-AUG-17 @ 10:31 Matrix: WATER							
Physical Tests							
Conductivity (EC)	29.7		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	12.9		0.50	mg/L		18-AUG-17	
pH	6.92		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	22		10	mg/L		16-AUG-17	R3802601
Anions and Nutrients							
Acidity (as CaCO3)	3.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	12.2		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.080		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.41		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.31		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.31		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0061		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.27		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	8.4		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	8.0		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0302		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00031		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00526		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	4.25		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00031		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00069		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.229		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.672		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00909		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-19 BL4							
Sampled By: JMQ on 13-AUG-17 @ 10:31							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.367		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00142		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000085		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	0.71		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.833		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0120		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00055		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000015		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0201		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00026		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00518		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000065		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	4.11		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00024		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00061		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.141		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000053		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-19 BL4 Sampled By: JMQ on 13-AUG-17 @ 10:31 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.637		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00582		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.358		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00131		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000068		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	0.608		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.804		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	0.00031		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0049		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-20 WL2 Sampled By: JMQ on 13-AUG-17 @ 11:11 Matrix: WATER							
Physical Tests							
Conductivity (EC)	35.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	15.7		0.50	mg/L		19-AUG-17	
pH	7.14		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		16-AUG-17	R3802834
Total Dissolved Solids	39		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.5		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	14.7		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.17		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-20 WL2							
Sampled By: JMQ on 13-AUG-17 @ 11:11							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	<0.25		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0076		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	3.00		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	7.5		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	8.9		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0217		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00026		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00402		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	5.50		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00018		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00066		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.077		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.627		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.00828		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.377		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00117		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000096		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	0.57		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.656		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0114		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.55		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-20 WL2							
Sampled By: JMQ on 13-AUG-17 @ 11:11							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0172		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00420		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000111		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	5.29		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00082		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.045		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000075		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.611		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00379		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.384		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00117		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000060		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	0.489		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.668		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0108		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-20 WL2 Sampled By: JMQ on 13-AUG-17 @ 11:11 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0233	DTC	0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-21 M1 Sampled By: JMQ on 13-AUG-17 @ 12:02 Matrix: WATER							
Physical Tests							
Conductivity (EC)	24.6		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	9.95		0.50	mg/L		18-AUG-17	
pH	6.98		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.9		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	37		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	10.2		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.026		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.15		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.36		0.25	mg/L	18-AUG-17	20-AUG-17	R3804625
Total Nitrogen	0.36		0.25	mg/L		21-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0053		0.0030	mg/L	18-AUG-17	21-AUG-17	R3805685
Sulfate (SO4)	1.21		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	8.2	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	8.2		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0121		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-21 M1							
Sampled By: JMQ on 13-AUG-17 @ 12:02							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00737		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000170		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	3.17		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000025		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00019		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00051		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.118		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.614		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0163		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.737		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00213		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000085		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	0.69		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.750		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0113		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0074		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-21 M1 Sampled By: JMQ on 13-AUG-17 @ 12:02 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00734		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000252		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	3.02		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000025		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00050		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.048		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.587		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00185		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000144		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.733		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00205		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	0.613		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.742		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0106		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0019		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-22 M2 Sampled By: JMQ on 13-AUG-17 @ 12:12 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-22 M2 Sampled By: JMQ on 13-AUG-17 @ 12:12 Matrix: WATER							
Physical Tests							
Conductivity (EC)	18.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	7.04		0.50	mg/L		18-AUG-17	
pH	6.75		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.6		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	32		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	6.7		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.033		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.14		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.34		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.34		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0061		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.79		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	7.9		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	8.6		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0257		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00024		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00466		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	1.91		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000018		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00028		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00062		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.058		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.617		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0116		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-22 M2							
Sampled By: JMQ on 13-AUG-17 @ 12:12							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000058		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.461		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00161		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000065		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.26		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.780		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.00875		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000025		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0189		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00454		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000056		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	1.83		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00013		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00055		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.021		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-22 M2 Sampled By: JMQ on 13-AUG-17 @ 12:12 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.597		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00104		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000055		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.458		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000068		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.17		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.770		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.00819		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000020		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0036		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-23 M4 Sampled By: JMQ on 13-AUG-17 @ 12:46 Matrix: WATER							
Physical Tests							
Conductivity (EC)	55.8		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	26.3		0.50	mg/L		18-AUG-17	
pH	7.38		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	3.1		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	53		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.5		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	28.9		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.12		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-23 M4 Sampled By: JMQ on 13-AUG-17 @ 12:46 Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.61		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.61		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0100		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	0.52		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	12.8		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	15.1		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0533		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00033		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.0117		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	9.44		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000014		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00078		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.078		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.933		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0366		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	1.11		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00223		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000109		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	0.48		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.780		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0193		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-23 M4							
Sampled By: JMQ on 13-AUG-17 @ 12:46							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00037		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0372		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00030		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.0108		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	9.00		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.020		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.921		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00106		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000057		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	1.10		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00218		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000114		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	0.436		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.789		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0180		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-23 M4 Sampled By: JMQ on 13-AUG-17 @ 12:46 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	0.000016		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0067		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-24 SL5 Sampled By: JMQ on 13-AUG-17 @ 14:32 Matrix: WATER							
Physical Tests							
Conductivity (EC)	55.6		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	24.2		0.50	mg/L		18-AUG-17	
pH	7.29		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.0		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	58		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.7		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	25.6		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	0.34		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.022		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.42		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.42		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0107		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	3.32		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	10.7	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	11.1		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0147		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-24 SL5							
Sampled By: JMQ on 13-AUG-17 @ 14:32							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	0.00980		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000245		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	8.31		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00074		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.201		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	1.01		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0276		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000061		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	0.00069		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	1.26		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00177		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000088		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	3.39		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	1.44		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0235		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.84		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00042		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000013		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0108		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-24 SL5 Sampled By: JMQ on 13-AUG-17 @ 14:32 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00950		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000054		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	8.06		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00076		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.143		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.988		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00790		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000054		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	0.00061		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	1.23		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00163		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000081		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	3.22		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	1.44		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0224		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	0.72		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0025		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-25 SL6 Sampled By: JMQ on 13-AUG-17 @ 14:56 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-25 SL6 Sampled By: JMQ on 13-AUG-17 @ 14:56 Matrix: WATER							
Physical Tests							
Conductivity (EC)	38.9		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	17.6		0.50	mg/L		19-AUG-17	
pH	7.00		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	4.5		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	67		13	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	4.2		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	20.0		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	0.064		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	3.11		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	0.38		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.38		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0091		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.59		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	9.1		1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	9.3		1.0	mg/L		23-AUG-17	R3808563
Total Metals							
Aluminum (Al)-Total	0.0249		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00025		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00505		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	5.97		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000030		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00015		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00066		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.430		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.759		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0247		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-25 SL6							
Sampled By: JMQ on 13-AUG-17 @ 14:56							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.00116		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.331		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00159		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000082		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.72		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	0.792		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0171		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00031		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0192		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00022		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00533		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000125		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	5.80		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000031		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00055		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.309		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-25 SL6 Sampled By: JMQ on 13-AUG-17 @ 14:56 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.763		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.0184		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.00107		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.342		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00161		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.58		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	0.822		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0163		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0128	DTC	0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-26 M3 Sampled By: JMQ on 13-AUG-17 @ 15:21 Matrix: WATER							
Physical Tests							
Conductivity (EC)	67.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	27.5		0.50	mg/L		18-AUG-17	
pH	7.32		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.1		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	34		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.6		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	28.3		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	3.09		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-26 M3							
Sampled By: JMQ on 13-AUG-17 @ 15:21							
Matrix: WATER							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.51		0.25	mg/L	16-AUG-17	16-AUG-17	R3801372
Total Nitrogen	0.51		0.25	mg/L		18-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0120		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	2.39		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	12.0		1.0	mg/L	21-AUG-17	23-AUG-17	R3808575
Total Organic Carbon	12.8		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0339		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00028		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.0132		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000128		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	9.89		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000017		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00029		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00089		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.866		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	0.000084		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.936		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0734		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000082		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	0.00055		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	1.02		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00188		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000098		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	2.40		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	2.50		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0257		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	0.78		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-26 M3							
Sampled By: JMQ on 13-AUG-17 @ 15:21							
Matrix: WATER							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00153		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000030		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	0.0067		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	0.000075		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0086		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00022		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.0113		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000078		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	9.51		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	0.000012		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00012		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00069		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.434		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	0.916		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.0132		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	1.01		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00190		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000105		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	2.19		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	2.46		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0234		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-26 M3 Sampled By: JMQ on 13-AUG-17 @ 15:21 Matrix: WATER							
Dissolved Metals							
Sulfur (S)-Dissolved	0.54		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000020		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0015		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	0.000077		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-27 FIELD BLANK Sampled By: JMQ on 13-AUG-17 @ 17:00 Matrix: WATER							
Physical Tests							
Conductivity (EC)	<3.0		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	<0.50		0.50	mg/L		18-AUG-17	
pH	5.40		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	1.7		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	<10		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	<2.0		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		17-AUG-17	R3802503
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	17-AUG-17	20-AUG-17	R3804625
Total Nitrogen	<0.25		0.25	mg/L		21-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	<0.30		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	<1.0		1.0	mg/L	21-AUG-17	23-AUG-17	R3808575
Total Organic Carbon	<1.0		1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-27 FIELD BLANK							
Sampled By: JMQ on 13-AUG-17 @ 17:00							
Matrix: WATER							
Total Metals							
Barium (Ba)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	<0.010		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	<0.10		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	0.00052	RRV	0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-27 FIELD BLANK Sampled By: JMQ on 13-AUG-17 @ 17:00 Matrix: WATER							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.000149	RRV	0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	0.00043	RRV	0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0012	RRV	0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223
L1975181-28 TCL Sampled By: JMQ on 14-AUG-17 @ 08:13 Matrix: WATER							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-28 TCL Sampled By: JMQ on 14-AUG-17 @ 08:13 Matrix: WATER							
Physical Tests							
Conductivity (EC)	29.4		3.0	uS/cm		15-AUG-17	R3801199
Hardness (as CaCO3)	8.49		0.50	mg/L		18-AUG-17	
pH	6.75		0.10	pH		15-AUG-17	R3801199
Total Suspended Solids	<1.0		1.0	mg/L		17-AUG-17	R3803282
Total Dissolved Solids	34		10	mg/L		17-AUG-17	R3803781
Anions and Nutrients							
Acidity (as CaCO3)	2.8		2.0	mg/L		16-AUG-17	R3802275
Alkalinity, Total (as CaCO3)	7.7		2.0	mg/L		15-AUG-17	R3801199
Ammonia, Total (as N)	<0.020		0.020	mg/L		22-AUG-17	R3807497
Bromide (Br)	<0.10		0.10	mg/L		16-AUG-17	R3802120
Chloride (Cl)	2.81		0.10	mg/L		16-AUG-17	R3802120
Fluoride (F)	0.022		0.020	mg/L		16-AUG-17	R3802120
Nitrate (as N)	<0.020		0.020	mg/L		16-AUG-17	R3802120
Nitrite (as N)	<0.010		0.010	mg/L		16-AUG-17	R3802120
Total Kjeldahl Nitrogen	<0.25		0.25	mg/L	22-AUG-17	22-AUG-17	R3807444
Total Nitrogen	<0.25		0.25	mg/L		30-AUG-17	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		16-AUG-17	R3801398
Phosphorus (P)-Total	0.0082		0.0030	mg/L	16-AUG-17	17-AUG-17	R3802364
Sulfate (SO4)	1.84		0.30	mg/L		16-AUG-17	R3802120
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					21-AUG-17	R3804886
Dissolved Organic Carbon	9.2	HTA	1.0	mg/L	21-AUG-17	21-AUG-17	R3805863
Total Organic Carbon	9.6	HTA	1.0	mg/L		21-AUG-17	R3805829
Total Metals							
Aluminum (Al)-Total	0.0412		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Arsenic (As)-Total	0.00033		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Barium (Ba)-Total	0.00442		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Boron (B)-Total	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cadmium (Cd)-Total	0.0000120		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Calcium (Ca)-Total	2.42		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Cesium (Cs)-Total	0.000011		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Chromium (Cr)-Total	0.00023		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Copper (Cu)-Total	0.00053		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Iron (Fe)-Total	0.334		0.010	mg/L	16-AUG-17	17-AUG-17	R3803313
Lead (Pb)-Total	0.000154		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Lithium (Li)-Total	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3803313
Magnesium (Mg)-Total	0.638		0.0050	mg/L	16-AUG-17	16-AUG-17	R3803313
Manganese (Mn)-Total	0.0153		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-28 TCL							
Sampled By: JMQ on 14-AUG-17 @ 08:13							
Matrix: WATER							
Total Metals							
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		16-AUG-17	R3801764
Molybdenum (Mo)-Total	0.000064		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Phosphorus (P)-Total	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Potassium (K)-Total	0.348		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Rubidium (Rb)-Total	0.00128		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Selenium (Se)-Total	0.000092		0.000050	mg/L	16-AUG-17	16-AUG-17	R3803313
Silicon (Si)-Total	1.61		0.10	mg/L	16-AUG-17	16-AUG-17	R3803313
Silver (Ag)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Sodium (Na)-Total	2.36		0.050	mg/L	16-AUG-17	16-AUG-17	R3803313
Strontium (Sr)-Total	0.0112		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Sulfur (S)-Total	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3803313
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3803313
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Thorium (Th)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Tin (Sn)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Titanium (Ti)-Total	0.00076		0.00030	mg/L	16-AUG-17	16-AUG-17	R3803313
Tungsten (W)-Total	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3803313
Uranium (U)-Total	0.000099		0.000010	mg/L	16-AUG-17	16-AUG-17	R3803313
Vanadium (V)-Total	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3803313
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	16-AUG-17	16-AUG-17	R3803313
Zirconium (Zr)-Total	0.000074		0.000060	mg/L	16-AUG-17	16-AUG-17	R3803313
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					16-AUG-17	R3801418
Dissolved Metals Filtration Location	FIELD					16-AUG-17	R3802105
Aluminum (Al)-Dissolved	0.0215		0.0020	mg/L	16-AUG-17	16-AUG-17	R3802223
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Arsenic (As)-Dissolved	0.00031		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Barium (Ba)-Dissolved	0.00420		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Boron (B)-Dissolved	<0.010		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cadmium (Cd)-Dissolved	0.0000054		0.0000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Calcium (Ca)-Dissolved	2.37		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Chromium (Cr)-Dissolved	0.00011		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Copper (Cu)-Dissolved	0.00033		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Iron (Fe)-Dissolved	0.171		0.010	mg/L	16-AUG-17	16-AUG-17	R3802223
Lead (Pb)-Dissolved	0.000073		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L1975181-28 TCL Sampled By: JMQ on 14-AUG-17 @ 08:13 Matrix: WATER							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.625		0.0050	mg/L	16-AUG-17	16-AUG-17	R3802223
Manganese (Mn)-Dissolved	0.00265		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Mercury (Hg)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3801772
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Potassium (K)-Dissolved	0.337		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Rubidium (Rb)-Dissolved	0.00120		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silicon (Si)-Dissolved	1.46		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Sodium (Na)-Dissolved	2.38		0.050	mg/L	16-AUG-17	16-AUG-17	R3802223
Strontium (Sr)-Dissolved	0.0106		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	16-AUG-17	16-AUG-17	R3802223
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	16-AUG-17	16-AUG-17	R3802223
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	16-AUG-17	16-AUG-17	R3802223
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	16-AUG-17	16-AUG-17	R3802223
Uranium (U)-Dissolved	0.000081		0.000010	mg/L	16-AUG-17	16-AUG-17	R3802223
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	16-AUG-17	16-AUG-17	R3802223
Zinc (Zn)-Dissolved	0.0028		0.0010	mg/L	16-AUG-17	16-AUG-17	R3802223
Zirconium (Zr)-Dissolved	0.000088		0.000060	mg/L	16-AUG-17	16-AUG-17	R3802223

* 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)
Matrix Spike	Calcium (Ca)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -17, -18, -19, -2, -20, -21, -22, -23, -24, -25, -26, -27, -28, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Ammonia, Total (as N)	MS-B	L1975181-1, -10, -11, -12, -13, -14, -15, -16, -18, -19, -20, -21, -22, -23, -24, -25, -26, -27
Matrix Spike	Phosphorus (P)-Total	MS-B	L1975181-1, -17, -28
Matrix Spike	Total Kjeldahl Nitrogen	MS-B	L1975181-10, -11, -12, -13, -14, -15, -16, -18, -19, -2, -20, -22, -23, -24, -25, -26, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Total Kjeldahl Nitrogen	MS-B	L1975181-28
Matrix Spike	Total Kjeldahl Nitrogen	MS-B	L1975181-1, -27
Matrix Spike	Total Kjeldahl Nitrogen	MS-B	L1975181-17, -28
Matrix Spike	Total Organic Carbon	MS-B	L1975181-1

Sample Parameter Qualifier key listed:

Qualifier	Description
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
HTA	Analytical holding time was exceeded.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-TITR-TB	Water	Acidity	APHA 2310 B modified
This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.			
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified
This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.			
BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
DOC-TB	Water	Dissolved Organic Carbon	APHA 5310 B modified
Water samples are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis. Analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
EC-TITR-TB	Water	Conductivity	APHA 2510 B
This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.			
F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-TB	Water	Hardness (as CaCO ₃)	CALCULATION

Reference Information

HG-D-CVAF-TB	Water	Dissolved Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
HG-T-CVAF-TB	Water	Total Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020A (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020A (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
N-T-CALC-TB	Water	Total Nitrogen (Calculation)	APHA 4500 N-Calculated
Total Nitrogen is a calculated parameter. Total Nitrogen = Total Kjeldahl Nitrogen +[Nitrate and Nitrite (as N)]			
NH3-COL-TB	Water	Ammonia by Discrete Analyzer	APHA 4500-NH3 G. (modified)
Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.			
NO2-IC-N-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-IC-N-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
PH-TITR-TB	Water	pH	APHA 4500-H
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
SO4-IC-N-TB	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)
Aqueous matrices are analyzed using gravimetry and evaporation			
TKN-COL-TB	Water	Total Kjeldahl Nitrogen	APHA 4500-Norg (modified)
Total Kjeldahl Nitrogen in aqueous matrices is analyzed using a discrete analyzer with colourimetric detection.			
TOC-TB	Water	Total Organic Carbon (TOC)	APHA 5310 B modified
Water samples are analyzed by converting all carbonaceous material to carbon dioxide (CO2) by catalytic combustion at 850°C. The CO2 generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
TSS-L-TB	Water	Low Level Total Suspended Solids	APHA 2540 D (modified)
Aqueous matrices are analyzed using gravimetry.			

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

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

Laboratory Definition Code	Laboratory Location
----------------------------	---------------------

TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA
----	--

Chain of Custody Numbers:

Reference Information

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 1 of 35

Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. TORONTO
 374 Wellington Street West Suite 3
 Toronto ON M5V 1E3

Contact: Rob Frizzel

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-TITR-TB		Water						
Batch	R3802275							
WG2593416-3	DUP	L1975181-2						
Acidity (as CaCO3)		<2.0	2.3	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593416-6	DUP	L1975181-15						
Acidity (as CaCO3)		4.5	4.3		mg/L	4.5	20	16-AUG-17
WG2593416-2	LCS							
Acidity (as CaCO3)			98.0		%		85-115	16-AUG-17
WG2593416-5	LCS							
Acidity (as CaCO3)			98.4		%		85-115	16-AUG-17
WG2593416-1	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	16-AUG-17
WG2593416-4	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	16-AUG-17
ALK-TITR-TB		Water						
Batch	R3801199							
WG2592506-15	DUP	L1975181-10						
Alkalinity, Total (as CaCO3)		10.9	10.6		mg/L	2.8	20	15-AUG-17
WG2592506-11	LCS							
Alkalinity, Total (as CaCO3)			100.3		%		85-115	15-AUG-17
WG2592506-14	LCS							
Alkalinity, Total (as CaCO3)			98.2		%		85-115	15-AUG-17
WG2592506-17	LCS							
Alkalinity, Total (as CaCO3)			100.7		%		85-115	15-AUG-17
WG2592506-10	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	15-AUG-17
WG2592506-13	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	15-AUG-17
WG2592506-16	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	15-AUG-17
BR-IC-N-TB		Water						
Batch	R3802120							
WG2593616-12	DUP	L1975181-28						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-10	LCS							
Bromide (Br)			105.6		%		85-115	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 2 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BR-IC-N-TB		Water						
Batch	R3802120							
WG2593616-2	LCS							
Bromide (Br)			99.4		%		85-115	16-AUG-17
WG2593616-6	LCS							
Bromide (Br)			96.1		%		85-115	16-AUG-17
WG2593616-1	MB							
Bromide (Br)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-5	MB							
Bromide (Br)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-9	MB							
Bromide (Br)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-11	MS	L1975181-28						
Bromide (Br)			95.7		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						
Bromide (Br)			105.2		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						
Bromide (Br)			101.9		%		75-125	16-AUG-17
CL-L-IC-N-TB		Water						
Batch	R3802120							
WG2593616-12	DUP	L1975181-28						
Chloride (Cl)		2.81	2.80		mg/L	0.2	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
Chloride (Cl)		1.02	1.01		mg/L	1.5	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
Chloride (Cl)		0.27	0.28		mg/L	4.8	20	16-AUG-17
WG2593616-10	LCS							
Chloride (Cl)			100.5		%		90-110	16-AUG-17
WG2593616-2	LCS							
Chloride (Cl)			99.8		%		90-110	16-AUG-17
WG2593616-6	LCS							
Chloride (Cl)			100.6		%		90-110	16-AUG-17
WG2593616-1	MB							
Chloride (Cl)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-5	MB							
Chloride (Cl)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-9	MB							
Chloride (Cl)			<0.10		mg/L		0.1	16-AUG-17
WG2593616-11	MS	L1975181-28						
Chloride (Cl)			102.7		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 3 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-TB								
	Water							
Batch	R3802120							
WG2593616-4	MS	L1975181-9						
Chloride (Cl)			99.2		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						
Chloride (Cl)			97.7		%		75-125	16-AUG-17
DOC-TB								
	Water							
Batch	R3803215							
WG2594759-3	DUP	L1975181-2						
Dissolved Organic Carbon		6.2	6.3		mg/L	0.8	20	17-AUG-17
WG2594759-2	LCS							
Dissolved Organic Carbon			101.1		%		80-120	17-AUG-17
WG2594759-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	17-AUG-17
WG2594759-4	MS	L1975181-2						
Dissolved Organic Carbon			101.3		%		70-130	17-AUG-17
Batch	R3803919							
WG2595464-3	DUP	L1975181-11						
Dissolved Organic Carbon		8.5	8.5		mg/L	0.0	20	18-AUG-17
WG2595464-2	LCS							
Dissolved Organic Carbon			102.6		%		80-120	18-AUG-17
WG2595464-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	18-AUG-17
WG2595464-4	MS	L1975181-11						
Dissolved Organic Carbon			99.8		%		70-130	18-AUG-17
Batch	R3804591							
WG2591022-2	LCS							
Dissolved Organic Carbon			105.9		%		80-120	19-AUG-17
WG2591022-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	19-AUG-17
Batch	R3805863							
WG2596994-3	DUP	L1975181-14						
Dissolved Organic Carbon		4.7	4.8		mg/L	3.6	20	21-AUG-17
WG2596994-2	LCS							
Dissolved Organic Carbon			103.1		%		80-120	21-AUG-17
WG2596994-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	21-AUG-17
WG2596994-4	MS	L1975181-14						
Dissolved Organic Carbon			107.6		%		70-130	21-AUG-17
EC-TITR-TB	Water							



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 4 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-TITR-TB		Water						
Batch	R3801199							
WG2592506-15	DUP	L1975181-10						
Conductivity (EC)		28.8	28.8		uS/cm	0.0	10	15-AUG-17
WG2592506-11	LCS							
Conductivity (EC)			98.2		%		90-110	15-AUG-17
WG2592506-14	LCS							
Conductivity (EC)			98.2		%		90-110	15-AUG-17
WG2592506-17	LCS							
Conductivity (EC)			97.8		%		90-110	15-AUG-17
WG2592506-10	MB							
Conductivity (EC)			<3.0		uS/cm		3	15-AUG-17
WG2592506-13	MB							
Conductivity (EC)			<3.0		uS/cm		3	15-AUG-17
WG2592506-16	MB							
Conductivity (EC)			<3.0		uS/cm		3	15-AUG-17
F-IC-N-TB		Water						
Batch	R3802120							
WG2593616-12	DUP	L1975181-28						
Fluoride (F)		0.022	0.022		mg/L	0.9	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
Fluoride (F)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
Fluoride (F)		0.026	0.026		mg/L	2.3	20	16-AUG-17
WG2593616-10	LCS							
Fluoride (F)			103.5		%		90-110	16-AUG-17
WG2593616-2	LCS							
Fluoride (F)			106.7		%		90-110	16-AUG-17
WG2593616-6	LCS							
Fluoride (F)			108.6		%		90-110	16-AUG-17
WG2593616-1	MB							
Fluoride (F)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-5	MB							
Fluoride (F)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-9	MB							
Fluoride (F)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-11	MS	L1975181-28						
Fluoride (F)			92.1		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						
Fluoride (F)			90.0		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 5 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-TB								
Water								
Batch R3802120								
WG2593616-7 MS		L1975181-17						
Fluoride (F)			88.9		%		75-125	16-AUG-17
HG-D-CVAF-TB								
Water								
Batch R3801772								
WG2593558-7 DUP		L1975181-21						
Mercury (Hg)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593558-2 LCS								
Mercury (Hg)-Dissolved			92.4		%		80-120	16-AUG-17
WG2593558-6 LCS								
Mercury (Hg)-Dissolved			85.1		%		80-120	16-AUG-17
WG2593558-1 MB								
Mercury (Hg)-Dissolved			<0.0000050		mg/L		0.000005	16-AUG-17
WG2593558-5 MB								
Mercury (Hg)-Dissolved			<0.0000050		mg/L		0.000005	16-AUG-17
WG2593558-4 MS		L1975181-2						
Mercury (Hg)-Dissolved			100.2		%		70-130	16-AUG-17
WG2593558-8 MS		L1975181-22						
Mercury (Hg)-Dissolved			95.1		%		70-130	16-AUG-17
Batch R3802594								
WG2594487-2 LCS								
Mercury (Hg)-Dissolved			99.8		%		80-120	17-AUG-17
WG2594487-1 MB								
Mercury (Hg)-Dissolved			<0.0000050		mg/L		0.000005	17-AUG-17
HG-T-CVAF-TB								
Water								
Batch R3801764								
WG2593551-7 DUP		L1975181-21						
Mercury (Hg)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593551-2 LCS								
Mercury (Hg)-Total			111.5		%		80-120	16-AUG-17
WG2593551-6 LCS								
Mercury (Hg)-Total			96.3		%		80-120	16-AUG-17
WG2593551-1 MB								
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	16-AUG-17
WG2593551-5 MB								
Mercury (Hg)-Total			<0.0000050		mg/L		0.000005	16-AUG-17
WG2593551-4 MS		L1975181-2						
Mercury (Hg)-Total			118.5		%		70-130	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 6 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-CVAF-TB								
	Water							
Batch	R3801764							
WG2593551-8 MS		L1975181-22						
Mercury (Hg)-Total			101.5		%		70-130	16-AUG-17
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-3 DUP		L1975181-22						
Aluminum (Al)-Dissolved		0.0189	0.0178		mg/L	5.7	20	16-AUG-17
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Arsenic (As)-Dissolved		0.00021	0.00021		mg/L	0.4	20	16-AUG-17
Barium (Ba)-Dissolved		0.00454	0.00461		mg/L	1.6	20	16-AUG-17
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
Cadmium (Cd)-Dissolved		0.0000056	<0.0000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Calcium (Ca)-Dissolved		1.83	1.84		mg/L	0.4	20	16-AUG-17
Cesium (Cs)-Dissolved		0.000017	0.000018		mg/L	3.6	20	16-AUG-17
Chromium (Cr)-Dissolved		0.00013	0.00015		mg/L	11	20	16-AUG-17
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Copper (Cu)-Dissolved		0.00055	0.00054		mg/L	1.5	20	16-AUG-17
Iron (Fe)-Dissolved		0.021	0.021		mg/L	0.1	20	16-AUG-17
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	16-AUG-17
Magnesium (Mg)-Dissolved		0.597	0.598		mg/L	0.1	20	16-AUG-17
Manganese (Mn)-Dissolved		0.00104	0.00098		mg/L	6.0	20	16-AUG-17
Molybdenum (Mo)-Dissolved		0.000055	0.000061		mg/L	10	20	16-AUG-17
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	16-AUG-17
Potassium (K)-Dissolved		0.458	0.449		mg/L	2.0	20	16-AUG-17
Rubidium (Rb)-Dissolved		0.00158	0.00149		mg/L	6.3	20	16-AUG-17
Selenium (Se)-Dissolved		0.000068	0.000057		mg/L	18	20	16-AUG-17
Silicon (Si)-Dissolved		1.17	1.17		mg/L	0.0	20	16-AUG-17
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Sodium (Na)-Dissolved		0.770	0.769		mg/L	0.2	20	16-AUG-17
Strontium (Sr)-Dissolved		0.00819	0.00824		mg/L	0.6	20	16-AUG-17
Sulfur (S)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 7 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-3	DUP	L1975181-22						
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	16-AUG-17
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	16-AUG-17
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Uranium (U)-Dissolved		0.000020	0.000021		mg/L	7.8	20	16-AUG-17
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Zinc (Zn)-Dissolved		0.0036	0.0038		mg/L	5.5	20	16-AUG-17
Zirconium (Zr)-Dissolved		<0.000060	0.000108	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593408-7	DUP	L1975181-1						
Aluminum (Al)-Dissolved		0.0194	0.0188		mg/L	3.3	20	16-AUG-17
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Arsenic (As)-Dissolved		0.00020	0.00019		mg/L	4.9	20	16-AUG-17
Barium (Ba)-Dissolved		0.00391	0.00380		mg/L	2.8	20	16-AUG-17
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
Cadmium (Cd)-Dissolved		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Calcium (Ca)-Dissolved		2.52	2.51		mg/L	0.7	20	16-AUG-17
Cesium (Cs)-Dissolved		0.000016	0.000017		mg/L	6.9	20	16-AUG-17
Chromium (Cr)-Dissolved		<0.00010	0.00014	RPD-NA	mg/L	N/A	20	16-AUG-17
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Copper (Cu)-Dissolved		0.00027	0.00027		mg/L	0.9	20	16-AUG-17
Iron (Fe)-Dissolved		0.037	0.037		mg/L	1.1	20	16-AUG-17
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	16-AUG-17
Magnesium (Mg)-Dissolved		0.616	0.609		mg/L	1.1	20	16-AUG-17
Manganese (Mn)-Dissolved		0.00066	0.00068		mg/L	2.6	20	16-AUG-17
Molybdenum (Mo)-Dissolved		0.000075	0.000080		mg/L	5.6	20	16-AUG-17
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	16-AUG-17
Potassium (K)-Dissolved		0.404	0.397		mg/L	1.8	20	16-AUG-17
Rubidium (Rb)-Dissolved		0.00117	0.00119		mg/L	1.2	20	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 8 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-7	DUP	L1975181-1						
Selenium (Se)-Dissolved		<0.000050	0.000072	RPD-NA	mg/L	N/A	20	16-AUG-17
Silicon (Si)-Dissolved		1.29	1.35		mg/L	4.4	20	16-AUG-17
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Sodium (Na)-Dissolved		0.962	0.962		mg/L	0.0	20	16-AUG-17
Strontium (Sr)-Dissolved		0.0112	0.0112		mg/L	0.3	20	16-AUG-17
Sulfur (S)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	16-AUG-17
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	16-AUG-17
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	16-AUG-17
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Uranium (U)-Dissolved		0.000064	0.000066		mg/L	3.7	20	16-AUG-17
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Zinc (Zn)-Dissolved		0.0014	0.0013		mg/L	8.1	20	16-AUG-17
Zirconium (Zr)-Dissolved		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593408-2	LCS							
Aluminum (Al)-Dissolved			99.4		%		80-120	16-AUG-17
Antimony (Sb)-Dissolved			94.6		%		80-120	16-AUG-17
Arsenic (As)-Dissolved			97.8		%		80-120	16-AUG-17
Barium (Ba)-Dissolved			98.6		%		80-120	16-AUG-17
Beryllium (Be)-Dissolved			99.2		%		80-120	16-AUG-17
Bismuth (Bi)-Dissolved			96.9		%		80-120	16-AUG-17
Boron (B)-Dissolved			92.8		%		80-120	16-AUG-17
Cadmium (Cd)-Dissolved			99.4		%		80-120	16-AUG-17
Calcium (Ca)-Dissolved			96.4		%		80-120	16-AUG-17
Cesium (Cs)-Dissolved			94.8		%		80-120	16-AUG-17
Chromium (Cr)-Dissolved			97.2		%		80-120	16-AUG-17
Cobalt (Co)-Dissolved			97.2		%		80-120	16-AUG-17
Copper (Cu)-Dissolved			97.7		%		80-120	16-AUG-17
Iron (Fe)-Dissolved			99.4		%		80-120	16-AUG-17
Lead (Pb)-Dissolved			98.2		%		80-120	16-AUG-17
Lithium (Li)-Dissolved			99.4		%		80-120	16-AUG-17
Magnesium (Mg)-Dissolved			100.2		%		80-120	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 9 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-2	LCS							
Manganese (Mn)-Dissolved			95.8		%		80-120	16-AUG-17
Molybdenum (Mo)-Dissolved			97.8		%		80-120	16-AUG-17
Nickel (Ni)-Dissolved			98.7		%		80-120	16-AUG-17
Phosphorus (P)-Dissolved			103.0		%		70-130	16-AUG-17
Potassium (K)-Dissolved			99.2		%		80-120	16-AUG-17
Rubidium (Rb)-Dissolved			102.1		%		80-120	16-AUG-17
Selenium (Se)-Dissolved			97.3		%		80-120	16-AUG-17
Silicon (Si)-Dissolved			94.7		%		60-140	16-AUG-17
Silver (Ag)-Dissolved			93.7		%		80-120	16-AUG-17
Sodium (Na)-Dissolved			102.0		%		80-120	16-AUG-17
Strontium (Sr)-Dissolved			98.6		%		80-120	16-AUG-17
Sulfur (S)-Dissolved			94.4		%		80-120	16-AUG-17
Tellurium (Te)-Dissolved			90.4		%		80-120	16-AUG-17
Thallium (Tl)-Dissolved			100.2		%		80-120	16-AUG-17
Thorium (Th)-Dissolved			100.3		%		80-120	16-AUG-17
Tin (Sn)-Dissolved			93.5		%		80-120	16-AUG-17
Titanium (Ti)-Dissolved			95.5		%		80-120	16-AUG-17
Tungsten (W)-Dissolved			97.7		%		80-120	16-AUG-17
Uranium (U)-Dissolved			100.2		%		80-120	16-AUG-17
Vanadium (V)-Dissolved			97.8		%		80-120	16-AUG-17
Zinc (Zn)-Dissolved			94.1		%		80-120	16-AUG-17
Zirconium (Zr)-Dissolved			96.0		%		80-120	16-AUG-17
WG2593408-6	LCS							
Aluminum (Al)-Dissolved			99.5		%		80-120	16-AUG-17
Antimony (Sb)-Dissolved			99.8		%		80-120	16-AUG-17
Arsenic (As)-Dissolved			99.0		%		80-120	16-AUG-17
Barium (Ba)-Dissolved			93.9		%		80-120	16-AUG-17
Beryllium (Be)-Dissolved			99.6		%		80-120	16-AUG-17
Bismuth (Bi)-Dissolved			98.5		%		80-120	16-AUG-17
Boron (B)-Dissolved			92.9		%		80-120	16-AUG-17
Cadmium (Cd)-Dissolved			99.1		%		80-120	16-AUG-17
Calcium (Ca)-Dissolved			97.4		%		80-120	16-AUG-17
Cesium (Cs)-Dissolved			100.6		%		80-120	16-AUG-17
Chromium (Cr)-Dissolved			99.1		%		80-120	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 10 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-6	LCS							
Cobalt (Co)-Dissolved			98.3		%		80-120	16-AUG-17
Copper (Cu)-Dissolved			97.9		%		80-120	16-AUG-17
Iron (Fe)-Dissolved			100.7		%		80-120	16-AUG-17
Lead (Pb)-Dissolved			98.2		%		80-120	16-AUG-17
Lithium (Li)-Dissolved			98.5		%		80-120	16-AUG-17
Magnesium (Mg)-Dissolved			107.4		%		80-120	16-AUG-17
Manganese (Mn)-Dissolved			99.4		%		80-120	16-AUG-17
Molybdenum (Mo)-Dissolved			97.8		%		80-120	16-AUG-17
Nickel (Ni)-Dissolved			101.2		%		80-120	16-AUG-17
Phosphorus (P)-Dissolved			98.2		%		70-130	16-AUG-17
Potassium (K)-Dissolved			102.5		%		80-120	16-AUG-17
Rubidium (Rb)-Dissolved			98.8		%		80-120	16-AUG-17
Selenium (Se)-Dissolved			94.1		%		80-120	16-AUG-17
Silicon (Si)-Dissolved			105.8		%		60-140	16-AUG-17
Silver (Ag)-Dissolved			101.0		%		80-120	16-AUG-17
Sodium (Na)-Dissolved			103.1		%		80-120	16-AUG-17
Strontium (Sr)-Dissolved			99.4		%		80-120	16-AUG-17
Sulfur (S)-Dissolved			97.4		%		80-120	16-AUG-17
Tellurium (Te)-Dissolved			96.6		%		80-120	16-AUG-17
Thallium (Tl)-Dissolved			98.1		%		80-120	16-AUG-17
Thorium (Th)-Dissolved			101.4		%		80-120	16-AUG-17
Tin (Sn)-Dissolved			98.8		%		80-120	16-AUG-17
Titanium (Ti)-Dissolved			96.2		%		80-120	16-AUG-17
Tungsten (W)-Dissolved			97.7		%		80-120	16-AUG-17
Uranium (U)-Dissolved			99.1		%		80-120	16-AUG-17
Vanadium (V)-Dissolved			99.8		%		80-120	16-AUG-17
Zinc (Zn)-Dissolved			95.6		%		80-120	16-AUG-17
Zirconium (Zr)-Dissolved			97.6		%		80-120	16-AUG-17
WG2593408-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	16-AUG-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 11 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-1	MB							
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	16-AUG-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	16-AUG-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	16-AUG-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	16-AUG-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	16-AUG-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	16-AUG-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	16-AUG-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	16-AUG-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	16-AUG-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	16-AUG-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 12 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-5	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	16-AUG-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	16-AUG-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	16-AUG-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	16-AUG-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	16-AUG-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	16-AUG-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	16-AUG-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	16-AUG-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	16-AUG-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	16-AUG-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	16-AUG-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 13 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-5	MB							
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	16-AUG-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	16-AUG-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	16-AUG-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	16-AUG-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	16-AUG-17
WG2593408-4	MS	L1975181-22						
Aluminum (Al)-Dissolved			97.2		%		70-130	16-AUG-17
Antimony (Sb)-Dissolved			101.1		%		70-130	16-AUG-17
Arsenic (As)-Dissolved			103.4		%		70-130	16-AUG-17
Barium (Ba)-Dissolved			97.0		%		70-130	16-AUG-17
Beryllium (Be)-Dissolved			99.2		%		70-130	16-AUG-17
Bismuth (Bi)-Dissolved			88.0		%		70-130	16-AUG-17
Boron (B)-Dissolved			97.5		%		70-130	16-AUG-17
Cadmium (Cd)-Dissolved			103.7		%		70-130	16-AUG-17
Calcium (Ca)-Dissolved			94.9		%		70-130	16-AUG-17
Cesium (Cs)-Dissolved			99.6		%		70-130	16-AUG-17
Chromium (Cr)-Dissolved			99.8		%		70-130	16-AUG-17
Cobalt (Co)-Dissolved			100.1		%		70-130	16-AUG-17
Copper (Cu)-Dissolved			98.9		%		70-130	16-AUG-17
Iron (Fe)-Dissolved			100.4		%		70-130	16-AUG-17
Lead (Pb)-Dissolved			97.9		%		70-130	16-AUG-17
Lithium (Li)-Dissolved			93.4		%		70-130	16-AUG-17
Magnesium (Mg)-Dissolved			98.0		%		70-130	16-AUG-17
Manganese (Mn)-Dissolved			98.4		%		70-130	16-AUG-17
Molybdenum (Mo)-Dissolved			96.3		%		70-130	16-AUG-17
Nickel (Ni)-Dissolved			100.8		%		70-130	16-AUG-17
Phosphorus (P)-Dissolved			102.0		%		70-130	16-AUG-17
Potassium (K)-Dissolved			100.1		%		70-130	16-AUG-17
Rubidium (Rb)-Dissolved			102.4		%		70-130	16-AUG-17
Selenium (Se)-Dissolved			105.6		%		70-130	16-AUG-17
Silicon (Si)-Dissolved			91.9		%		70-130	16-AUG-17
Silver (Ag)-Dissolved			101.9		%		70-130	16-AUG-17
Sodium (Na)-Dissolved			102.5		%		70-130	16-AUG-17
Strontium (Sr)-Dissolved			95.8		%		70-130	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 14 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-4 MS		L1975181-22						
Sulfur (S)-Dissolved			97.3		%		70-130	16-AUG-17
Tellurium (Te)-Dissolved			102.9		%		70-130	16-AUG-17
Thallium (Tl)-Dissolved			97.6		%		70-130	16-AUG-17
Thorium (Th)-Dissolved			106.3		%		70-130	16-AUG-17
Tin (Sn)-Dissolved			100.2		%		70-130	16-AUG-17
Titanium (Ti)-Dissolved			100.1		%		70-130	16-AUG-17
Tungsten (W)-Dissolved			97.3		%		70-130	16-AUG-17
Uranium (U)-Dissolved			96.4		%		70-130	16-AUG-17
Vanadium (V)-Dissolved			100.7		%		70-130	16-AUG-17
Zinc (Zn)-Dissolved			100.7		%		70-130	16-AUG-17
Zirconium (Zr)-Dissolved			102.0		%		70-130	16-AUG-17
WG2593408-8 MS		L1975181-1						
Aluminum (Al)-Dissolved			98.2		%		70-130	16-AUG-17
Antimony (Sb)-Dissolved			98.5		%		70-130	16-AUG-17
Arsenic (As)-Dissolved			103.1		%		70-130	16-AUG-17
Barium (Ba)-Dissolved			100.2		%		70-130	16-AUG-17
Beryllium (Be)-Dissolved			102.9		%		70-130	16-AUG-17
Bismuth (Bi)-Dissolved			87.4		%		70-130	16-AUG-17
Boron (B)-Dissolved			98.8		%		70-130	16-AUG-17
Cadmium (Cd)-Dissolved			104.7		%		70-130	16-AUG-17
Calcium (Ca)-Dissolved			93.6		%		70-130	16-AUG-17
Cesium (Cs)-Dissolved			97.4		%		70-130	16-AUG-17
Chromium (Cr)-Dissolved			98.8		%		70-130	16-AUG-17
Cobalt (Co)-Dissolved			99.4		%		70-130	16-AUG-17
Copper (Cu)-Dissolved			98.3		%		70-130	16-AUG-17
Iron (Fe)-Dissolved			99.1		%		70-130	16-AUG-17
Lead (Pb)-Dissolved			96.8		%		70-130	16-AUG-17
Lithium (Li)-Dissolved			100.7		%		70-130	16-AUG-17
Magnesium (Mg)-Dissolved			96.1		%		70-130	16-AUG-17
Manganese (Mn)-Dissolved			97.9		%		70-130	16-AUG-17
Molybdenum (Mo)-Dissolved			94.5		%		70-130	16-AUG-17
Nickel (Ni)-Dissolved			99.8		%		70-130	16-AUG-17
Phosphorus (P)-Dissolved			100.9		%		70-130	16-AUG-17
Potassium (K)-Dissolved			98.9		%		70-130	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 15 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3802223							
WG2593408-8	MS	L1975181-1						
Rubidium (Rb)-Dissolved			100.0		%		70-130	16-AUG-17
Selenium (Se)-Dissolved			104.9		%		70-130	16-AUG-17
Silicon (Si)-Dissolved			94.5		%		70-130	16-AUG-17
Silver (Ag)-Dissolved			100.4		%		70-130	16-AUG-17
Sodium (Na)-Dissolved			97.3		%		70-130	16-AUG-17
Strontium (Sr)-Dissolved			101.7		%		70-130	16-AUG-17
Sulfur (S)-Dissolved			99.8		%		70-130	16-AUG-17
Tellurium (Te)-Dissolved			100.9		%		70-130	16-AUG-17
Thallium (Tl)-Dissolved			97.4		%		70-130	16-AUG-17
Thorium (Th)-Dissolved			103.4		%		70-130	16-AUG-17
Tin (Sn)-Dissolved			97.6		%		70-130	16-AUG-17
Titanium (Ti)-Dissolved			99.8		%		70-130	16-AUG-17
Tungsten (W)-Dissolved			96.1		%		70-130	16-AUG-17
Uranium (U)-Dissolved			97.1		%		70-130	16-AUG-17
Vanadium (V)-Dissolved			98.5		%		70-130	16-AUG-17
Zinc (Zn)-Dissolved			99.8		%		70-130	16-AUG-17
Zirconium (Zr)-Dissolved			100.9		%		70-130	16-AUG-17
Batch	R3803888							
WG2596004-2	LCS							
Aluminum (Al)-Dissolved			102.9		%		80-120	18-AUG-17
Antimony (Sb)-Dissolved			97.2		%		80-120	18-AUG-17
Arsenic (As)-Dissolved			101.8		%		80-120	18-AUG-17
Barium (Ba)-Dissolved			103.5		%		80-120	18-AUG-17
Beryllium (Be)-Dissolved			106.1		%		80-120	18-AUG-17
Bismuth (Bi)-Dissolved			93.4		%		80-120	18-AUG-17
Boron (B)-Dissolved			98.3		%		80-120	18-AUG-17
Cadmium (Cd)-Dissolved			100.9		%		80-120	18-AUG-17
Calcium (Ca)-Dissolved			99.8		%		80-120	18-AUG-17
Cesium (Cs)-Dissolved			105.2		%		80-120	18-AUG-17
Chromium (Cr)-Dissolved			100.3		%		80-120	18-AUG-17
Cobalt (Co)-Dissolved			101.6		%		80-120	18-AUG-17
Copper (Cu)-Dissolved			99.9		%		80-120	18-AUG-17
Iron (Fe)-Dissolved			104.8		%		80-120	18-AUG-17
Lead (Pb)-Dissolved			97.7		%		80-120	18-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 16 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R3803888							
WG2596004-2	LCS							
Lithium (Li)-Dissolved			109.9		%		80-120	18-AUG-17
Magnesium (Mg)-Dissolved			108.9		%		80-120	18-AUG-17
Manganese (Mn)-Dissolved			100.8		%		80-120	18-AUG-17
Molybdenum (Mo)-Dissolved			98.3		%		80-120	18-AUG-17
Nickel (Ni)-Dissolved			102.1		%		80-120	18-AUG-17
Phosphorus (P)-Dissolved			106.2		%		70-130	18-AUG-17
Potassium (K)-Dissolved			103.6		%		80-120	18-AUG-17
Rubidium (Rb)-Dissolved			103.1		%		80-120	18-AUG-17
Selenium (Se)-Dissolved			94.7		%		80-120	18-AUG-17
Silicon (Si)-Dissolved			106.5		%		60-140	18-AUG-17
Silver (Ag)-Dissolved			100.9		%		80-120	18-AUG-17
Sodium (Na)-Dissolved			101.4		%		80-120	18-AUG-17
Strontium (Sr)-Dissolved			102.6		%		80-120	18-AUG-17
Sulfur (S)-Dissolved			93.5		%		80-120	18-AUG-17
Tellurium (Te)-Dissolved			99.0		%		80-120	18-AUG-17
Thallium (Tl)-Dissolved			97.1		%		80-120	18-AUG-17
Thorium (Th)-Dissolved			96.8		%		80-120	18-AUG-17
Tin (Sn)-Dissolved			96.3		%		80-120	18-AUG-17
Titanium (Ti)-Dissolved			99.0		%		80-120	18-AUG-17
Tungsten (W)-Dissolved			94.3		%		80-120	18-AUG-17
Uranium (U)-Dissolved			98.2		%		80-120	18-AUG-17
Vanadium (V)-Dissolved			102.4		%		80-120	18-AUG-17
Zinc (Zn)-Dissolved			98.3		%		80-120	18-AUG-17
Zirconium (Zr)-Dissolved			97.9		%		80-120	18-AUG-17
WG2596004-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	18-AUG-17
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Barium (Ba)-Dissolved			<0.000050		mg/L		0.00005	18-AUG-17
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	18-AUG-17
Boron (B)-Dissolved			<0.010		mg/L		0.01	18-AUG-17
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	18-AUG-17
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	18-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 17 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB		Water						
Batch	R3803888							
WG2596004-1	MB							
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	18-AUG-17
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	18-AUG-17
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	18-AUG-17
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	18-AUG-17
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	18-AUG-17
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	18-AUG-17
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	18-AUG-17
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	18-AUG-17
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	18-AUG-17
Potassium (K)-Dissolved			<0.050		mg/L		0.05	18-AUG-17
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	18-AUG-17
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	18-AUG-17
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	18-AUG-17
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	18-AUG-17
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	18-AUG-17
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	18-AUG-17
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	18-AUG-17
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	18-AUG-17
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	18-AUG-17
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	18-AUG-17
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	18-AUG-17
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	18-AUG-17
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	18-AUG-17
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	18-AUG-17
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	18-AUG-17

MET-T-CCMS-TB **Water**



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 18 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3802149							
WG2593156-6	LCS							
Aluminum (Al)-Total			103.7		%		80-120	16-AUG-17
Antimony (Sb)-Total			108.3		%		80-120	16-AUG-17
Arsenic (As)-Total			104.1		%		80-120	16-AUG-17
Barium (Ba)-Total			101.0		%		80-120	16-AUG-17
Beryllium (Be)-Total			103.3		%		80-120	16-AUG-17
Bismuth (Bi)-Total			98.8		%		80-120	16-AUG-17
Boron (B)-Total			95.0		%		80-120	16-AUG-17
Cadmium (Cd)-Total			98.6		%		80-120	16-AUG-17
Calcium (Ca)-Total			101.5		%		80-120	16-AUG-17
Cesium (Cs)-Total			105.2		%		80-120	16-AUG-17
Chromium (Cr)-Total			102.1		%		80-120	16-AUG-17
Cobalt (Co)-Total			103.7		%		80-120	16-AUG-17
Copper (Cu)-Total			102.1		%		80-120	16-AUG-17
Iron (Fe)-Total			105.2		%		80-120	16-AUG-17
Lead (Pb)-Total			99.9		%		80-120	16-AUG-17
Lithium (Li)-Total			103.9		%		80-120	16-AUG-17
Magnesium (Mg)-Total			110.9		%		80-120	16-AUG-17
Manganese (Mn)-Total			102.2		%		80-120	16-AUG-17
Molybdenum (Mo)-Total			99.8		%		80-120	16-AUG-17
Nickel (Ni)-Total			106.6		%		80-120	16-AUG-17
Phosphorus (P)-Total			108.7		%		70-130	16-AUG-17
Potassium (K)-Total			103.8		%		80-120	16-AUG-17
Rubidium (Rb)-Total			104.7		%		80-120	16-AUG-17
Selenium (Se)-Total			100.8		%		80-120	16-AUG-17
Silicon (Si)-Total			108.3		%		60-140	16-AUG-17
Silver (Ag)-Total			105.3		%		80-120	16-AUG-17
Sodium (Na)-Total			102.6		%		80-120	16-AUG-17
Strontium (Sr)-Total			103.0		%		80-120	16-AUG-17
Sulfur (S)-Total			106.8		%		80-120	16-AUG-17
Tellurium (Te)-Total			104.4		%		80-120	16-AUG-17
Thallium (Tl)-Total			100.7		%		80-120	16-AUG-17
Thorium (Th)-Total			102.3		%		80-120	16-AUG-17
Tin (Sn)-Total			101.3		%		80-120	16-AUG-17
Titanium (Ti)-Total			102.2		%		80-120	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 19 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3802149							
WG2593156-6	LCS							
Tungsten (W)-Total			98.8		%		80-120	16-AUG-17
Uranium (U)-Total			106.4		%		80-120	16-AUG-17
Vanadium (V)-Total			103.9		%		80-120	16-AUG-17
Zinc (Zn)-Total			97.4		%		80-120	16-AUG-17
Zirconium (Zr)-Total			97.1		%		80-120	16-AUG-17
WG2593156-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	16-AUG-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Barium (Ba)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Boron (B)-Total			<0.010		mg/L		0.01	16-AUG-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	16-AUG-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	16-AUG-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	16-AUG-17
Iron (Fe)-Total			<0.010		mg/L		0.01	16-AUG-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	16-AUG-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	16-AUG-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	16-AUG-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	16-AUG-17
Potassium (K)-Total			<0.050		mg/L		0.05	16-AUG-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	16-AUG-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Silicon (Si)-Total			<0.10		mg/L		0.1	16-AUG-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Sodium (Na)-Total			<0.050		mg/L		0.05	16-AUG-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 20 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3802149							
WG2593156-5 MB								
Sulfur (S)-Total			<0.50		mg/L		0.5	16-AUG-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	16-AUG-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Thorium (Th)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	16-AUG-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	16-AUG-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	16-AUG-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	16-AUG-17
Batch	R3803313							
WG2593156-12 DUP		L1975181-15						
Aluminum (Al)-Total		0.0207	0.0202		mg/L	2.1	20	16-AUG-17
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Arsenic (As)-Total		0.00025	0.00026		mg/L	4.1	20	16-AUG-17
Barium (Ba)-Total		0.00642	0.00653		mg/L	1.7	20	16-AUG-17
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Boron (B)-Total		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
Cadmium (Cd)-Total		<0.0000050	0.0000060	RPD-NA	mg/L	N/A	20	16-AUG-17
Calcium (Ca)-Total		12.1	12.2		mg/L	0.9	20	16-AUG-17
Cesium (Cs)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Chromium (Cr)-Total		0.00012	0.00013		mg/L	2.4	20	16-AUG-17
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Copper (Cu)-Total		0.00071	0.00073		mg/L	2.6	20	16-AUG-17
Iron (Fe)-Total		0.025	0.024		mg/L	2.8	20	17-AUG-17
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	16-AUG-17
Lithium (Li)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	16-AUG-17
Magnesium (Mg)-Total		1.07	1.09		mg/L	2.0	20	16-AUG-17
Manganese (Mn)-Total		0.00495	0.00491		mg/L	0.7	20	16-AUG-17
Molybdenum (Mo)-Total		0.000112	0.000116		mg/L	3.9	20	16-AUG-17
Nickel (Ni)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Phosphorus (P)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 21 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2593156-12 DUP		L1975181-15						
Potassium (K)-Total		0.606	0.620		mg/L	2.3	20	16-AUG-17
Rubidium (Rb)-Total		0.00111	0.00112		mg/L	1.0	20	16-AUG-17
Selenium (Se)-Total		0.000087	0.000124	J	mg/L	0.000037	0.0001	16-AUG-17
Silicon (Si)-Total		1.84	1.83		mg/L	0.4	20	16-AUG-17
Silver (Ag)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Sodium (Na)-Total		0.937	0.947		mg/L	1.1	20	16-AUG-17
Strontium (Sr)-Total		0.0261	0.0269		mg/L	3.1	20	16-AUG-17
Sulfur (S)-Total		1.45	1.64		mg/L	13	20	16-AUG-17
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	16-AUG-17
Thallium (Tl)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Titanium (Ti)-Total		<0.0011	<0.0011	RPD-NA	mg/L	N/A	20	16-AUG-17
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	16-AUG-17
Uranium (U)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	16-AUG-17
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	16-AUG-17
Zinc (Zn)-Total		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	16-AUG-17
Zirconium (Zr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593156-10 LCS								
Aluminum (Al)-Total			102.5		%		80-120	16-AUG-17
Antimony (Sb)-Total			108.1		%		80-120	16-AUG-17
Arsenic (As)-Total			103.7		%		80-120	16-AUG-17
Barium (Ba)-Total			97.9		%		80-120	16-AUG-17
Beryllium (Be)-Total			104.3		%		80-120	16-AUG-17
Bismuth (Bi)-Total			102.5		%		80-120	16-AUG-17
Boron (B)-Total			95.7		%		80-120	16-AUG-17
Cadmium (Cd)-Total			100.9		%		80-120	16-AUG-17
Calcium (Ca)-Total			102.0		%		80-120	16-AUG-17
Cesium (Cs)-Total			105.1		%		80-120	16-AUG-17
Chromium (Cr)-Total			108.8		%		80-120	16-AUG-17
Cobalt (Co)-Total			101.6		%		80-120	16-AUG-17
Copper (Cu)-Total			101.0		%		80-120	16-AUG-17
Iron (Fe)-Total			98.0		%		80-120	17-AUG-17
Lead (Pb)-Total			101.2		%		80-120	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 22 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2593156-10	LCS							
Lithium (Li)-Total			104.7		%		80-120	16-AUG-17
Magnesium (Mg)-Total			108.0		%		80-120	16-AUG-17
Manganese (Mn)-Total			103.2		%		80-120	16-AUG-17
Molybdenum (Mo)-Total			101.0		%		80-120	16-AUG-17
Nickel (Ni)-Total			104.2		%		80-120	16-AUG-17
Phosphorus (P)-Total			103.0		%		70-130	16-AUG-17
Potassium (K)-Total			104.0		%		80-120	16-AUG-17
Rubidium (Rb)-Total			102.1		%		80-120	16-AUG-17
Selenium (Se)-Total			99.6		%		80-120	16-AUG-17
Silicon (Si)-Total			107.0		%		60-140	16-AUG-17
Silver (Ag)-Total			106.2		%		80-120	16-AUG-17
Sodium (Na)-Total			105.4		%		80-120	16-AUG-17
Strontium (Sr)-Total			102.7		%		80-120	16-AUG-17
Sulfur (S)-Total			100.4		%		80-120	16-AUG-17
Tellurium (Te)-Total			108.1		%		80-120	16-AUG-17
Thallium (Tl)-Total			102.4		%		80-120	16-AUG-17
Thorium (Th)-Total			104.0		%		80-120	16-AUG-17
Tin (Sn)-Total			101.2		%		80-120	16-AUG-17
Titanium (Ti)-Total			102.0		%		80-120	16-AUG-17
Tungsten (W)-Total			99.0		%		80-120	16-AUG-17
Uranium (U)-Total			106.4		%		80-120	16-AUG-17
Vanadium (V)-Total			103.2		%		80-120	16-AUG-17
Zinc (Zn)-Total			96.9		%		80-120	16-AUG-17
Zirconium (Zr)-Total			97.7		%		80-120	16-AUG-17
WG2594215-6	LCS							
Aluminum (Al)-Total			103.9		%		80-120	17-AUG-17
Antimony (Sb)-Total			105.6		%		80-120	17-AUG-17
Arsenic (As)-Total			100.2		%		80-120	17-AUG-17
Barium (Ba)-Total			101.8		%		80-120	17-AUG-17
Beryllium (Be)-Total			107.0		%		80-120	17-AUG-17
Bismuth (Bi)-Total			101.1		%		80-120	17-AUG-17
Boron (B)-Total			96.0		%		80-120	17-AUG-17
Cadmium (Cd)-Total			99.3		%		80-120	17-AUG-17
Calcium (Ca)-Total			102.4		%		80-120	17-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 23 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2594215-6	LCS							
Cesium (Cs)-Total			108.6		%		80-120	17-AUG-17
Chromium (Cr)-Total			100.3		%		80-120	17-AUG-17
Cobalt (Co)-Total			100.6		%		80-120	17-AUG-17
Copper (Cu)-Total			98.6		%		80-120	17-AUG-17
Iron (Fe)-Total			102.4		%		80-120	17-AUG-17
Lead (Pb)-Total			106.4		%		80-120	17-AUG-17
Lithium (Li)-Total			98.8		%		80-120	17-AUG-17
Magnesium (Mg)-Total			110.4		%		80-120	17-AUG-17
Manganese (Mn)-Total			102.6		%		80-120	17-AUG-17
Molybdenum (Mo)-Total			96.8		%		80-120	17-AUG-17
Nickel (Ni)-Total			99.96		%		80-120	17-AUG-17
Phosphorus (P)-Total			108.2		%		70-130	17-AUG-17
Potassium (K)-Total			104.9		%		80-120	17-AUG-17
Rubidium (Rb)-Total			100.1		%		80-120	17-AUG-17
Selenium (Se)-Total			101.3		%		80-120	17-AUG-17
Silicon (Si)-Total			109.0		%		60-140	17-AUG-17
Silver (Ag)-Total			108.3		%		80-120	17-AUG-17
Sodium (Na)-Total			98.8		%		80-120	17-AUG-17
Strontium (Sr)-Total			98.6		%		80-120	17-AUG-17
Sulfur (S)-Total			107.6		%		80-120	17-AUG-17
Tellurium (Te)-Total			104.9		%		80-120	17-AUG-17
Thallium (Tl)-Total			103.3		%		80-120	17-AUG-17
Thorium (Th)-Total			104.8		%		80-120	17-AUG-17
Tin (Sn)-Total			102.0		%		80-120	17-AUG-17
Titanium (Ti)-Total			99.8		%		80-120	17-AUG-17
Tungsten (W)-Total			103.4		%		80-120	17-AUG-17
Uranium (U)-Total			102.6		%		80-120	17-AUG-17
Vanadium (V)-Total			99.9		%		80-120	17-AUG-17
Zinc (Zn)-Total			95.1		%		80-120	17-AUG-17
Zirconium (Zr)-Total			98.1		%		80-120	17-AUG-17
WG2593156-9	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	16-AUG-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 24 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2593156-9	MB							
Barium (Ba)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Boron (B)-Total			<0.010		mg/L		0.01	16-AUG-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	16-AUG-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	16-AUG-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	16-AUG-17
Iron (Fe)-Total			<0.010		mg/L		0.01	17-AUG-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	16-AUG-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	16-AUG-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	16-AUG-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	16-AUG-17
Potassium (K)-Total			<0.050		mg/L		0.05	16-AUG-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	16-AUG-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	16-AUG-17
Silicon (Si)-Total			<0.10		mg/L		0.1	16-AUG-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Sodium (Na)-Total			<0.050		mg/L		0.05	16-AUG-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	16-AUG-17
Sulfur (S)-Total			<0.50		mg/L		0.5	16-AUG-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	16-AUG-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Thorium (Th)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	16-AUG-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	16-AUG-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	16-AUG-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 25 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2593156-9	MB							
Zinc (Zn)-Total			<0.0030		mg/L		0.003	16-AUG-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	16-AUG-17
WG2594215-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	17-AUG-17
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Arsenic (As)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Barium (Ba)-Total			<0.000050		mg/L		0.00005	17-AUG-17
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	17-AUG-17
Boron (B)-Total			<0.010		mg/L		0.01	17-AUG-17
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	17-AUG-17
Calcium (Ca)-Total			<0.050		mg/L		0.05	17-AUG-17
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	17-AUG-17
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Copper (Cu)-Total			<0.00050		mg/L		0.0005	17-AUG-17
Iron (Fe)-Total			<0.010		mg/L		0.01	17-AUG-17
Lead (Pb)-Total			<0.000050		mg/L		0.00005	17-AUG-17
Lithium (Li)-Total			<0.0010		mg/L		0.001	17-AUG-17
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	17-AUG-17
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	17-AUG-17
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	17-AUG-17
Phosphorus (P)-Total			<0.050		mg/L		0.05	17-AUG-17
Potassium (K)-Total			<0.050		mg/L		0.05	17-AUG-17
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	17-AUG-17
Selenium (Se)-Total			<0.000050		mg/L		0.00005	17-AUG-17
Silicon (Si)-Total			<0.10		mg/L		0.1	17-AUG-17
Silver (Ag)-Total			<0.000010		mg/L		0.00001	17-AUG-17
Sodium (Na)-Total			<0.050		mg/L		0.05	17-AUG-17
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	17-AUG-17
Sulfur (S)-Total			<0.50		mg/L		0.5	17-AUG-17
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	17-AUG-17
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	17-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 26 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2594215-5	MB							
Thorium (Th)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Tin (Sn)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	17-AUG-17
Tungsten (W)-Total			<0.00010		mg/L		0.0001	17-AUG-17
Uranium (U)-Total			<0.000010		mg/L		0.00001	17-AUG-17
Vanadium (V)-Total			<0.00050		mg/L		0.0005	17-AUG-17
Zinc (Zn)-Total			<0.0030		mg/L		0.003	17-AUG-17
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	17-AUG-17
WG2593156-11	MS	L1975181-15						
Aluminum (Al)-Total			103.6		%		70-130	16-AUG-17
Antimony (Sb)-Total			107.9		%		70-130	16-AUG-17
Arsenic (As)-Total			106.3		%		70-130	16-AUG-17
Barium (Ba)-Total			96.0		%		70-130	16-AUG-17
Beryllium (Be)-Total			103.0		%		70-130	16-AUG-17
Bismuth (Bi)-Total			103.6		%		70-130	16-AUG-17
Boron (B)-Total			101.2		%		70-130	16-AUG-17
Cadmium (Cd)-Total			102.8		%		70-120	16-AUG-17
Calcium (Ca)-Total			N/A	MS-B	%		-	16-AUG-17
Cesium (Cs)-Total			103.5		%		70-130	16-AUG-17
Chromium (Cr)-Total			102.2		%		70-130	16-AUG-17
Cobalt (Co)-Total			103.7		%		70-130	16-AUG-17
Copper (Cu)-Total			103.8		%		70-130	16-AUG-17
Iron (Fe)-Total			98.2		%		70-130	17-AUG-17
Lead (Pb)-Total			102.2		%		70-130	16-AUG-17
Lithium (Li)-Total			98.3		%		70-130	16-AUG-17
Magnesium (Mg)-Total			N/A	MS-B	%		-	16-AUG-17
Manganese (Mn)-Total			102.0		%		70-130	16-AUG-17
Molybdenum (Mo)-Total			101.5		%		70-130	16-AUG-17
Nickel (Ni)-Total			105.1		%		70-130	16-AUG-17
Phosphorus (P)-Total			102.4		%		70-130	16-AUG-17
Potassium (K)-Total			101.1		%		70-130	16-AUG-17
Rubidium (Rb)-Total			105.3		%		70-130	16-AUG-17
Selenium (Se)-Total			107.0		%		70-130	16-AUG-17
Silicon (Si)-Total			100.5		%		70-130	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 27 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R3803313							
WG2593156-11	MS	L1975181-15						
Silver (Ag)-Total			105.5		%		70-130	16-AUG-17
Sodium (Na)-Total			104.2		%		70-130	16-AUG-17
Strontium (Sr)-Total			N/A	MS-B	%		-	16-AUG-17
Sulfur (S)-Total			106.0		%		70-130	16-AUG-17
Tellurium (Te)-Total			100.6		%		70-130	16-AUG-17
Thallium (Tl)-Total			103.3		%		70-130	16-AUG-17
Thorium (Th)-Total			108.9		%		70-130	16-AUG-17
Tin (Sn)-Total			102.8		%		70-130	16-AUG-17
Titanium (Ti)-Total			105.9		%		70-130	16-AUG-17
Tungsten (W)-Total			102.4		%		70-130	16-AUG-17
Uranium (U)-Total			106.8		%		70-130	16-AUG-17
Vanadium (V)-Total			101.9		%		70-130	16-AUG-17
Zinc (Zn)-Total			98.5		%		70-130	16-AUG-17
Zirconium (Zr)-Total			103.6		%		70-130	16-AUG-17
NH3-COL-TB								
	Water							
Batch	R3801650							
WG2593514-6	LCS							
Ammonia, Total (as N)			98.1		%		85-115	16-AUG-17
WG2593514-5	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	16-AUG-17
Batch	R3802503							
WG2593514-7	DUP	L1975181-10						
Ammonia, Total (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	17-AUG-17
WG2594523-3	DUP	L1975181-23						
Ammonia, Total (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	17-AUG-17
WG2594523-14	LCS							
Ammonia, Total (as N)			99.2		%		85-115	17-AUG-17
WG2594523-2	LCS							
Ammonia, Total (as N)			99.3		%		85-115	17-AUG-17
WG2594523-6	LCS							
Ammonia, Total (as N)			99.0		%		85-115	17-AUG-17
WG2594523-1	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	17-AUG-17
WG2594523-13	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	17-AUG-17
WG2594523-5	MB							



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 28 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-COL-TB								
Water								
Batch	R3802503							
WG2594523-5	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	17-AUG-17
WG2593514-8	MS	L1975181-10						
Ammonia, Total (as N)			97.4		%		75-125	17-AUG-17
WG2594523-4	MS	L1975181-23						
Ammonia, Total (as N)			93.1		%		75-125	17-AUG-17
Batch								
R3807497								
WG2597892-2	LCS							
Ammonia, Total (as N)			97.7		%		85-115	22-AUG-17
WG2597892-1	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	22-AUG-17
NO2-IC-N-TB								
Water								
Batch								
R3802120								
WG2593616-12	DUP	L1975181-28						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-10	LCS							
Nitrite (as N)			105.8		%		90-110	16-AUG-17
WG2593616-2	LCS							
Nitrite (as N)			100.7		%		90-110	16-AUG-17
WG2593616-6	LCS							
Nitrite (as N)			99.7		%		90-110	16-AUG-17
WG2593616-1	MB							
Nitrite (as N)			<0.010		mg/L		0.01	16-AUG-17
WG2593616-5	MB							
Nitrite (as N)			<0.010		mg/L		0.01	16-AUG-17
WG2593616-9	MB							
Nitrite (as N)			<0.010		mg/L		0.01	16-AUG-17
WG2593616-11	MS	L1975181-28						
Nitrite (as N)			105.5		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						
Nitrite (as N)			104.1		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						
Nitrite (as N)			99.0		%		75-125	16-AUG-17

NO3-IC-N-TB

Water



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 29 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-IC-N-TB								
Water								
Batch	R3802120							
WG2593616-12	DUP	L1975181-28						
Nitrate (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
Nitrate (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
Nitrate (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593616-10	LCS							
Nitrate (as N)			98.5		%		90-110	16-AUG-17
WG2593616-2	LCS							
Nitrate (as N)			97.7		%		90-110	16-AUG-17
WG2593616-6	LCS							
Nitrate (as N)			100.0		%		90-110	16-AUG-17
WG2593616-1	MB							
Nitrate (as N)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-5	MB							
Nitrate (as N)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-9	MB							
Nitrate (as N)			<0.020		mg/L		0.02	16-AUG-17
WG2593616-11	MS	L1975181-28						
Nitrate (as N)			101.3		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						
Nitrate (as N)			99.6		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						
Nitrate (as N)			96.4		%		75-125	16-AUG-17
P-T-COL-TB								
Water								
Batch	R3802364							
WG2593450-12	DUP	L1975181-19						
Phosphorus (P)-Total		0.0061	0.0066		mg/L	7.3	20	17-AUG-17
WG2593450-8	DUP	L1975181-3						
Phosphorus (P)-Total		0.0046	0.0043		mg/L	6.1	20	17-AUG-17
WG2593450-10	LCS							
Phosphorus (P)-Total			99.7		%		80-120	17-AUG-17
WG2593450-6	LCS							
Phosphorus (P)-Total			100.2		%		80-120	17-AUG-17
WG2593450-5	MB							
Phosphorus (P)-Total			<0.0030		mg/L		0.003	17-AUG-17
WG2593450-9	MB							
Phosphorus (P)-Total			<0.0030		mg/L		0.003	17-AUG-17
WG2593450-11	MS	L1975181-19						



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 30 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
P-T-COL-TB								
Water								
Batch	R3802364							
WG2593450-11 MS		L1975181-19						
Phosphorus (P)-Total			75.9		%		70-130	17-AUG-17
WG2593450-7 MS		L1975181-3						
Phosphorus (P)-Total			81.6		%		70-130	17-AUG-17
Batch	R3805685							
WG2595781-2 LCS								
Phosphorus (P)-Total			103.6		%		80-120	21-AUG-17
WG2595781-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	21-AUG-17
Batch	R3807892							
WG2594673-8 DUP		L1975181-1						
Phosphorus (P)-Total		<0.0060	<0.0060	RPD-NA	mg/L	N/A	20	23-AUG-17
WG2598164-2 LCS								
Phosphorus (P)-Total			95.4		%		80-120	23-AUG-17
WG2598164-1 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	23-AUG-17
PH-TITR-TB								
Water								
Batch	R3801199							
WG2592506-15 DUP		L1975181-10						
pH		7.03	7.00	J	pH	0.03	0.2	15-AUG-17
WG2592506-11 LCS								
pH			5.97		pH		5.9-6.1	15-AUG-17
WG2592506-14 LCS								
pH			5.97		pH		5.9-6.1	15-AUG-17
WG2592506-17 LCS								
pH			5.97		pH		5.9-6.1	15-AUG-17
PO4-DO-COL-TB								
Water								
Batch	R3801398							
WG2593389-12 DUP		L1975181-28						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593389-8 DUP		L1975181-17						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593389-10 LCS								
Orthophosphate-Dissolved (as P)			101.7		%		80-120	16-AUG-17
WG2593389-2 LCS								
Orthophosphate-Dissolved (as P)			101.9		%		80-120	16-AUG-17
WG2593389-6 LCS								
Orthophosphate-Dissolved (as P)			101.3		%		80-120	16-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 31 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-COL-TB								
	Water							
Batch	R3801398							
WG2593389-1	MB							
	Orthophosphate-Dissolved (as P)		<0.0030		mg/L		0.003	16-AUG-17
WG2593389-5	MB							
	Orthophosphate-Dissolved (as P)		<0.0030		mg/L		0.003	16-AUG-17
WG2593389-9	MB							
	Orthophosphate-Dissolved (as P)		<0.0030		mg/L		0.003	16-AUG-17
WG2593389-11	MS	L1975181-28						
	Orthophosphate-Dissolved (as P)		86.3		%		70-130	16-AUG-17
WG2593389-7	MS	L1975181-17						
	Orthophosphate-Dissolved (as P)		92.3		%		70-130	16-AUG-17
SO4-IC-N-TB								
	Water							
Batch	R3802120							
WG2593616-12	DUP	L1975181-28						
	Sulfate (SO4)	1.84	1.92		mg/L	4.2	20	16-AUG-17
WG2593616-3	DUP	L1975181-9						
	Sulfate (SO4)	1.58	1.58		mg/L	0.3	20	16-AUG-17
WG2593616-8	DUP	L1975181-17						
	Sulfate (SO4)	2.32	2.36		mg/L	1.9	20	16-AUG-17
WG2593616-10	LCS							
	Sulfate (SO4)		101.7		%		90-110	16-AUG-17
WG2593616-2	LCS							
	Sulfate (SO4)		100.6		%		90-110	16-AUG-17
WG2593616-6	LCS							
	Sulfate (SO4)		102.1		%		90-110	16-AUG-17
WG2593616-1	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	16-AUG-17
WG2593616-5	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	16-AUG-17
WG2593616-9	MB							
	Sulfate (SO4)		<0.30		mg/L		0.3	16-AUG-17
WG2593616-11	MS	L1975181-28						
	Sulfate (SO4)		102.8		%		75-125	16-AUG-17
WG2593616-4	MS	L1975181-9						
	Sulfate (SO4)		98.8		%		75-125	16-AUG-17
WG2593616-7	MS	L1975181-17						
	Sulfate (SO4)		97.4		%		75-125	16-AUG-17
TDS-TB	Water							



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 32 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TDS-TB								
Water								
Batch	R3802601							
WG2593457-3	DUP	L1975181-14						
Total Dissolved Solids		53	55		mg/L	3.7	20	16-AUG-17
WG2593457-2	LCS							
Total Dissolved Solids			100.1		%		85-115	16-AUG-17
WG2593457-1	MB							
Total Dissolved Solids			<10		mg/L		10	16-AUG-17
Batch	R3803781							
WG2594583-2	LCS							
Total Dissolved Solids			100.6		%		85-115	17-AUG-17
WG2594583-1	MB							
Total Dissolved Solids			<10		mg/L		10	17-AUG-17
TKN-COL-TB								
Water								
Batch	R3801372							
WG2593161-7	DUP	L1975181-20						
Total Kjeldahl Nitrogen		<0.25	<0.25	RPD-NA	mg/L	N/A	20	16-AUG-17
WG2593161-2	LCS							
Total Kjeldahl Nitrogen			101.4		%		75-125	16-AUG-17
WG2593161-6	LCS							
Total Kjeldahl Nitrogen			102.2		%		75-125	16-AUG-17
WG2593161-1	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	16-AUG-17
WG2593161-5	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	16-AUG-17
WG2593161-8	MS	L1975181-20						
Total Kjeldahl Nitrogen			87.3		%		70-130	16-AUG-17
Batch	R3804625							
WG2594247-2	LCS							
Total Kjeldahl Nitrogen			98.0		%		75-125	20-AUG-17
WG2594247-6	LCS							
Total Kjeldahl Nitrogen			93.9		%		75-125	20-AUG-17
WG2595321-2	LCS							
Total Kjeldahl Nitrogen			97.9		%		75-125	20-AUG-17
WG2594247-1	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	20-AUG-17
WG2594247-5	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	20-AUG-17
WG2595321-1	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	20-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 33 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TKN-COL-TB								
Water								
Batch	R3807444							
WG2597829-2	LCS							
Total Kjeldahl Nitrogen			98.8		%		75-125	22-AUG-17
WG2597829-1	MB							
Total Kjeldahl Nitrogen			<0.25		mg/L		0.25	22-AUG-17
TOC-TB								
Water								
Batch	R3803026							
WG2594461-2	LCS							
Total Organic Carbon			102.5		%		80-120	17-AUG-17
WG2594461-1	MB							
Total Organic Carbon			<1.0		mg/L		1	17-AUG-17
Batch	R3803557							
WG2595457-3	DUP	L1975181-10						
Total Organic Carbon		7.7	7.8		mg/L	0.6	20	18-AUG-17
WG2595457-2	LCS							
Total Organic Carbon			102.3		%		80-120	18-AUG-17
WG2595457-1	MB							
Total Organic Carbon			<1.0		mg/L		1	18-AUG-17
WG2595457-4	MS	L1975181-10						
Total Organic Carbon			102.8		%		70-130	18-AUG-17
Batch	R3804563							
WG2596339-2	LCS							
Total Organic Carbon			101.9		%		80-120	19-AUG-17
WG2596339-1	MB							
Total Organic Carbon			<1.0		mg/L		1	19-AUG-17
Batch	R3805829							
WG2596989-3	DUP	L1975181-20						
Total Organic Carbon		8.9	7.9		mg/L	12	20	21-AUG-17
WG2596989-2	LCS							
Total Organic Carbon			102.4		%		80-120	21-AUG-17
WG2596989-1	MB							
Total Organic Carbon			<1.0		mg/L		1	21-AUG-17
WG2596989-4	MS	L1975181-20						
Total Organic Carbon			73.9		%		70-130	21-AUG-17
Batch	R3808563							
WG2599472-2	LCS							
Total Organic Carbon			104.6		%		80-120	23-AUG-17
WG2599472-1	MB							
Total Organic Carbon			<1.0		mg/L		1	23-AUG-17



Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 34 of 35

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-L-TB	Water							
Batch R3802834								
WG2593658-2 LCS								
Total Suspended Solids			93.3		%		85-115	16-AUG-17
WG2593658-1 MB								
Total Suspended Solids			<1.0		mg/L		1	16-AUG-17
Batch R3803282								
WG2594501-2 LCS								
Total Suspended Solids			100.3		%		85-115	17-AUG-17
WG2594501-1 MB								
Total Suspended Solids			<1.0		mg/L		1	17-AUG-17

Quality Control Report

Workorder: L1975181

Report Date: 30-AUG-17

Page 35 of 35

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

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

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



ALS Environmental

www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878



L1975181-COFC

COC Number: 15 -

Page 1 of 3

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AN - surcharges will apply															
Company: Palmer Environmental Consulting Group		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply															
Contact: Nicole Tower Rob Frizzel		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> NO <input type="checkbox"/>			PRIORITY (Business Day)					EMERGENCY										
Phone: 416-571-3731		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			4 day [P4] <input type="checkbox"/>					1 Business day [E1] <input type="checkbox"/>										
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>										
Street: 374 Wellington Street W.		Email 1 or Fax: jake@pecg.ca			Date and Time Required for all E&P TATs:															
City/Province: Toronto ON		Email 2: nicole@pecg.ca			For tests that can not be performed according to the service level selected, you will be contacted.															
Postal Code: M5V1E3		Email 3:			Analysis Request															
Invoice To		Invoice Distribution			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below															
Same as Report To <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			F/R P P P/F P															
Copy of Invoice with Report <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Email 1 or Fax: nicole@pecg.ca			General Chem - Routine															
Company:		Email 2: jake@pecg.ca			Dissolved Metals															
Project Information		Oil and Gas Required Fields (client use)			Total Metals															
ALS Account # / Quote #:		AFE/Cost Center:			PO#			Nutrients												
Job #: Ambershaw Mining Project		Major/Minor Code:			Routing Code:			Hg dissolved Hg												
PO / AFE:		Requisitioner:			total Hg															
LSD:		Location:			DOC															
ALS Lab Work Order # (lab use only) L1975181		ALS Contact: Christine Paradis			Sampler: JMQ			low level TSS												
ALS Sample # (lab use only)		Sample Identification and/or Coordinates (This description will appear on the report)			Date (dd-mm-yy)		Time (hh:mm)		Sample Type		Solids									
1		BGL-5			11-Aug-17		10:30		Water		X X X X X X X X									
		Bending Lake 1			"		11:40		Water											
		Bending Lake 2			"		11:56		Water											
		Bending Lake 3			"		12:03		Water											
		BGL-2			"		12:33		Water											
		BGL-3			"		12:59		Water											
		Beak Lake 1			"		15:15pm		Water											
		Beak Lake 2			"		15:23		Water											
		Beak Lake 3			"		15:39		Water											
		BL2			"		15:52		Water											
		BL1			"		16:29		Water											
		SL2			12-Aug-17		10:00		Water		X X X X X X X X									
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)															
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>										
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>										
					Cooling Initiated <input checked="" type="checkbox"/>					INITIAL COOLER TEMPERATURES °C										
										FINAL COOLER TEMPERATURES °C										
					16.8															
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)														
Released by: [Signature]			Date: [Date]			Received by: [Signature]			Date: [Date]			Time: [Time]								



ALS Environmental

www.alsglobal.com

Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878



L1975181-COFC

COC Number: 15 -

Page 2 of 3

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply											
Company:	Palmer Environmental Consulting Group	Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply											
Contact:	Nicole Lower - <i>Reb Frizzell</i>	Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO			PRIORITY (Business Days)		4 day [P4] <input type="checkbox"/>		EMERGENCY		1 Business day [E1] <input type="checkbox"/>					
Phone:	416-571-3731	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>		2 day [P2] <input type="checkbox"/>		Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>							
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:											
Street:	374 Wellington Street W.	Email 1 or Fax <i>jake@pecg.ca</i>			For tests that can not be performed according to the service level selected, you will be contacted.											
City/Province:	Toronto ON	Email 2 <i>nicola@pecg.ca</i>			Analysis Request											
Postal Code:	M5V1E3	Email 3			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below											
Invoice To	Same as Report To <input checked="" type="checkbox"/> <input type="checkbox"/> NO	Invoice Distribution														
	Copy of Invoice with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX														
Company:		Email 1 or Fax <i>nicola@pecg.ca</i>														
Contact:		Email 2 <i>jake@pecg.ca</i>														
Project Information		Oil and Gas Required Fields (client use)														
ALS Account # / Quote #:		AFE/Cost Center:		PO#												
Job #:		Major/Minor Code:		Routing Code:												
PO / AFE:		Requisitioner:														
LSD:		Location:														
ALS Lab Work Order # (lab use only)		ALS Contact:		Sampler:												
		<i>Christine Paradis</i>		<i>JMQ</i>												
<i>L1975181</i>																
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mm-yy)	Time (hh:mm)	Sample Type	General Chem - Routine	Dissolved Metals	Total Metals	Nutrients	Hg Dissolved	Solids	Low Level TSS	PH	Chloride	Number of Containers		
	<i>Stormy Lake 1</i>	<i>12-Aug-17</i>	<i>11:30</i>	<i>Water</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>			
	<i>Stormy Lake 2</i>	<i>"</i>	<i>11:35</i>	<i>Water</i>												
	<i>Stormy Lake 3</i>	<i>"</i>	<i>12:15</i>	<i>Water</i>												
	<i>BGL 1</i>	<i>"</i>	<i>14:20</i>	<i>Water</i>												
	<i>TC2 - DUP</i>	<i>13-Aug-17</i>	<i>10:08</i>	<i>Water</i>												
	<i>TC2 -</i>	<i>"</i>	<i>10:08</i>	<i>Water</i>												
	<i>BL4</i>	<i>"</i>	<i>10:31</i>	<i>Water</i>												
	<i>WL2</i>	<i>"</i>	<i>11:11</i>	<i>Water</i>												
	<i>M1</i>	<i>"</i>	<i>12:02</i>	<i>Water</i>												
	<i>M2</i>	<i>"</i>	<i>12:12</i>	<i>Water</i>												
	<i>M4</i>	<i>"</i>	<i>12:46</i>	<i>Water</i>												
	<i>SL5</i>	<i>"</i>	<i>14:32</i>	<i>Water</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>	<i>X</i>			
Drinking Water (DW) Samples (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>											
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>											
					Cooling Initiated <input checked="" type="checkbox"/>											
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C						
					<i>16-8</i>											
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)								
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
<i>[Signature]</i>			<i>LS</i>	<i>08/15/17</i>	<i>12:00</i>											

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 PRINT

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

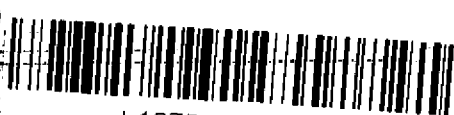
1. If any water samples are taken from a Regulated Drinking Water (DW) System, please submit using an Authorized DW COC form.



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

www.alsglobal.com



L1975181-COFC

COC Number: 15 --

Page 2 of 3

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply									
Company: Palmer Environmental Consulting Group		Select Report Format: <input checked="" type="checkbox"/> EXCEL <input checked="" type="checkbox"/> EDD (DIGITAL)			Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply					EMERGENCY				
Contact: Nicole Tower <i>Rob Frizzell</i>		Quality Control (QC) Report with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO			4 day [P4] <input type="checkbox"/>					1 Business day [E1] <input type="checkbox"/>				
Phone: 416-571-3731		<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked			3 day [P3] <input type="checkbox"/>					Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>				
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs:									
Street: 374 Wellington Street W.		Email 1 or Fax: jake@pecg.ca			For tests that can not be performed according to the service level selected, you will be contacted.									
City/Province: Toronto ON		Email 2: nicole@pecg.ca			Analysis Request									
Postal Code: M5V1E3		Email 3:			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below									
Invoice To: Same as Report To <input checked="" type="checkbox"/> <input type="checkbox"/> NO		Invoice Distribution												
Copy of Invoice with Report <input checked="" type="checkbox"/> <input type="checkbox"/> NO		Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX												
Company:		Email 1 or Fax: nicole@pecg.ca												
Contact:		Email 2: jake@pecg.ca												
Project Information		Oil and Gas Required Fields (client use)												
ALS Account # / Quote #:		AFE/Cost Center:			PO#									
Job #: Ambershaw Mining Project		Major/Minor Code:			Routing Code:									
PO / AFE:		Requisitioner:			Location:									
LSD:		ALS Contact: Christine Paradis			Sampler: JMQ									
ALS Lab Work Order # (lab use only): 21975181														
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	General Chem - Routine	Dissolved Metals	Total Metals	Nutrients	Hg Dissolved	Hg Total	Solids	DOC	Low Level TSS	Number of Containers
	SL6	13-Aug-17	14:56	Water	X	X	X	X	X	X	X	X	X	9
	m.3	"	15:21	Water	X	X	X	X	X	X	X	X	X	9
	Field Blank	"	17:00	Water	X	X	X	X	X	X	X	X	X	9
	TCL (use date on COC)	14-Aug-17	8:13	Water	X	X	X	X	X	X	X	X	X	9
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
				Water										
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below - (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)									
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Frozen <input type="checkbox"/>					SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>				
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/>					Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>				
					Cooling Initiated <input type="checkbox"/>									
					INITIAL COOLER TEMPERATURES °C: 16.8					FINAL COOLER TEMPERATURES °C:				
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)									
Released by: <i>Gabe...</i>		Received by: <i>LS</i>			Date: 08/15/12					Date: 12/12				
Date:		Date:			Time: c					Time:				



Sample Receipt Confirmation

Report Distribution:

Company Name: PALMER ENVIRONMENTAL CONSULTING GROUP INC. TORONTO

Contact: Jake McQueen

Address: 374 Wellington Street West, Suite 3
Toronto, ON, M5V 1E3

Phone: 647-795-8153

Fax: --

Email: jake@pegc.ca
corinne@pegc.ca

EDD Email: --

Distribution: Hard Copy: N Email: Y Fax: N EDD: N

Invoice Distribution:

Acct Name: PALMER ENVIRONMENTAL CONSULTING GROUP INC. TORONTO

Contact: ACCOUNTS PAYABLE

Address: 374 Wellington Street West, Suite 3
Toronto, ON, M5V 1E3

Phone: 647-795-8153

Fax: --

Invoice Email: jake@pegc.ca

Project #: N/A

Account #: 24400

Client Information:

Job Reference #: AMBERSHAW

Project PO #:

Legal Site Description: N/A

Quote #: Q62364

Date Sampled: 20-OCT-17

Date Received: 23-OCT-17

Sampled By: CLIENT

Chain Of Custody: --

Workorder Summary:

Lab Work Order #: L2011569

Estimated completion date: 31-OCT-17

20 Samples received at ALS in THUNDERBAY

Client Job #: AMBERSHAW

Account Manager: Christine Paradis

Estimated sample disposal date: See Sample Disposal Information section below.

Note: There are sample integrity issues with your samples submitted. Please see Sample Integrity Observations below for more details.

Lab Sample ID	Client Sample ID	Date Sampled	Date Received	Sample Due Date	Priority Flag	Sample Type
L2011569-1	BGL5	20-OCT-17 12:50	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-2	BGL2	20-OCT-17 12:59	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-3	BGL3	20-OCT-17 13:40	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-4	TC2	20-OCT-17 13:55	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-5	BL4	20-OCT-17 15:02	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-6	BEPROFILE 1	20-OCT-17 14:40	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-7	BEPROFILE 3	20-OCT-17 14:13	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-8	BGL1	21-OCT-17 09:05	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-9	SL5	21-OCT-17 10:01	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-10	SL6	21-OCT-17 10:15	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-11	W2	21-OCT-17 10:45	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-12	BL1	21-OCT-17 11:10	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-13	M4	21-OCT-17 14:01	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-14	M1	21-OCT-17 15:33	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-15	M3	21-OCT-17 16:45	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-16	TC1	21-OCT-17 16:59	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-17	TC1-DUP	21-OCT-17 17:30	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-18	M2	22-OCT-17 14:45	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-19	PL1	22-OCT-17 17:01	23-OCT-17 15:35	31-OCT-17	TS	Surface Water
L2011569-20	FB	21-OCT-17 00:01	23-OCT-17 15:35	31-OCT-17	TS	Surface Water



Analysis Requested :

	Dissolved Orthophosphate	Sulfate in Water by IC	Total Dissolved Solids	Total Organic Carbon [TOC]	Low Level Total Suspended Solids	Sample Handling and Disposal Fee
BGL5	✓	✓	✓	✓	✓	✓
BGL2	✓	✓	✓	✓	✓	✓
BGL3	✓	✓	✓	✓	✓	✓
TC2	✓	✓	✓	✓	✓	✓
BL4	✓	✓	✓	✓	✓	✓
BEPROFILE 1	✓	✓	✓	✓	✓	✓
BEPROFILE 3	✓	✓	✓	✓	✓	✓
BGL1	✓	✓	✓	✓	✓	✓
SL5	✓	✓	✓	✓	✓	✓
SL6	✓	✓	✓	✓	✓	✓
W2	✓	✓	✓	✓	✓	✓
BL1	✓	✓	✓	✓	✓	✓
M4	✓	✓	✓	✓	✓	✓
M1	✓	✓	✓	✓	✓	✓
M3	✓	✓	✓	✓	✓	✓
TC1	✓	✓	✓	✓	✓	✓
TC1-DUP	✓	✓	✓	✓	✓	✓
M2	✓	✓	✓	✓	✓	✓
PL1	✓	✓	✓	✓	✓	✓
FB	✓	✓	✓	✓	✓	✓

Login Comments:

Your samples were at 11.7° C when unpacked at the laboratory.

Sample Integrity Observations:

Observation	Details
CofC incomplete or unclear	Chain of Custody missing dates/times sampled, proceeding with information from bottles (PL1 Oct 22) unless specified otherwise. Please contact Account Manager.
Discrepancy between CofC and label	Discrepancy between sample IDs on Chain of Custody and Bottle, Chain of Custody reads W2 bottle reads WL2. Proceeding with information on Chain of Custody unless specified otherwise. Please contact Account Manager.
Other observation	Sample bottles received for FB and not indicated on chain of custody. Proceeding with the same analysis as the other samples and the date from the bottle 21-Oct-17 unless specified otherwise.



Sample Disposal Information:

Where possible, ALS will store samples for the following durations, measured from date of sample submission: 45 days for Soil and Water samples; 6 months for Tissue/Biota samples; 14 days for air samples collected on re-usable media; and 3 days for water samples submitted for microbiological testing. Longer storage times are available upon request.

For information about ALS accreditations and certifications please contact your Account Manager or visit our webpage at www.alsglobal.com (see Canada downloads).

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.

ALS Group appreciates your business. Thank you for the opportunity to work with you.



Report To	Jake McQueen, PALMER ENVIRONMENTAL CONSULTING GROUP INC. TC 374 Wellington Street West Suite 3 Toronto, ON M5V 1E3	Date Received	23-Oct-2017 15:35
		Report Date	31-Oct-2017 15:00
		Report Revision	1
		Version	FINAL
Client Phone	647-795-8153		

Certificate of Analysis

Lab Work Order #	L2011569
Project P.O. #	
Job Reference	AMBERSHAW
Legal Site Description	
C of C Numbers	

Case Narrative/Comments

Work Order Qualifiers:
Temperature - 11.7 °

<Original signed by>

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878



L2011569-COFC

COC Number: 15 -

Page 1 of 2

www.alsglobal.com

Report To Contact and company name below will appear on the final report Company: Palmer Environmental Consulting Group Inc. Contact: Jake McQueen Phone: 647-795-8153 Company address below will appear on the final report Street: 374 Wellington Street West, Suite 3 City/Province: Toronto, ON Postal Code: M5V 1E3		Report Format / Distribution Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL) Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO <input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1: jake@pegc.ca Email 2: corinne@pegc.ca Email 3:		Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply Priority (Business Days): 4 day [P4] <input type="checkbox"/> 3 day [P3] <input type="checkbox"/> 2 day [P2] <input type="checkbox"/> EMERGENCY 1 Business day [E1] <input type="checkbox"/> Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/> Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm For tests that can not be performed according to the service level selected, you will be contacted.																																																																																																																																																																																																																
Invoice To Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO Company: Contact:		Invoice Distribution Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX Email 1: jake@pegc.ca Email 2:		Analysis Request Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																																																																																																																																																																																																																
Project Information ALS Account # / Quote #: Q62364 Job #: Ambershaw PO / AFE: LSD:		Oil and Gas Required Fields (client use) AFE/Cost Center: Major/Minor Code: Requisitioner: Location:		<table border="1"> <tr> <td>Acidity, Alkalinity, Br, Cl, DOC, Conductivity,</td> <td>F, Hardness, Dissolved Metals & Mercury,</td> <td>Total Metals & Mercury, Total Nitrogen,</td> <td>NH3, No2, NO3, Total Phosphorus, pH,</td> <td>PO4, SO4, TDS, TOC, Low Level TSS</td> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>						Acidity, Alkalinity, Br, Cl, DOC, Conductivity,	F, Hardness, Dissolved Metals & Mercury,	Total Metals & Mercury, Total Nitrogen,	NH3, No2, NO3, Total Phosphorus, pH,	PO4, SO4, TDS, TOC, Low Level TSS																																																																																																																																																																																																						
Acidity, Alkalinity, Br, Cl, DOC, Conductivity,	F, Hardness, Dissolved Metals & Mercury,	Total Metals & Mercury, Total Nitrogen,	NH3, No2, NO3, Total Phosphorus, pH,							PO4, SO4, TDS, TOC, Low Level TSS																																																																																																																																																																																																										
ALS Lab Work Order # (lab use only) L2011569		ALS Contact:		Sampler:																																																																																																																																																																																																																
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	<table border="1"> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>9</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>11</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>11</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>11</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>"</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>6</td> </tr> <tr> <td>x</td><td>x</td><td>x</td><td>x</td><td>x</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>4</td> </tr> </table>										x	x	x	x	x													9	x	x	x	x	x													11	x	x	x	x	x													11	x	x	x	x	x													11	x	x	x	x	x													"	x	x	x	x	x													2	x	x	x	x	x													4	x	x	x	x	x													4	x	x	x	x	x													4	x	x	x	x	x													6	x	x	x	x	x													4
x	x	x	x	x													9																																																																																																																																																																																																			
x	x	x	x	x													11																																																																																																																																																																																																			
x	x	x	x	x													11																																																																																																																																																																																																			
x	x	x	x	x													11																																																																																																																																																																																																			
x	x	x	x	x													"																																																																																																																																																																																																			
x	x	x	x	x													2																																																																																																																																																																																																			
x	x	x	x	x													4																																																																																																																																																																																																			
x	x	x	x	x													4																																																																																																																																																																																																			
x	x	x	x	x													4																																																																																																																																																																																																			
x	x	x	x	x													6																																																																																																																																																																																																			
x	x	x	x	x													4																																																																																																																																																																																																			
Drinking Water (DW) Samples¹ (client use) Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)		SAMPLE CONDITION AS RECEIVED (lab use only) Frozen <input type="checkbox"/> Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/> Cooling Initiated <input type="checkbox"/> INITIAL COOLER TEMPERATURES °C: 11.7 FINAL COOLER TEMPERATURES °C: SHIPMENT RELEASE (client use) INITIAL SHIPMENT RECEPTION (lab use only) FINAL SHIPMENT RECEPTION (lab use only)																																																																																																																																																																																																																
Released by: <i>EM</i>	Date: 23-Oct-2017	Time:	Received by: <i>JM</i>	Date: 23/17	Time: 3:35																																																																																																																																																																																																															



Chain of Custody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878



L2011569-COFC

OC Number: 15 -

Page 2 of 2

www.alsglobal.com

Report To Contact and company name below will appear on the final report		Report Format / Distribution			Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																
Company:	Palmer Environmental Consulting Group Inc.	Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)			Regular [R] <input type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																
Contact:	Jake McQueen	Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO			PRIORITY (Business Days)	4 day [P4] <input type="checkbox"/>					EMERGENCY	1 Business day [E1] <input type="checkbox"/>									
Phone:	647-795-8153	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked				3 day [P3] <input type="checkbox"/>						Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>									
Company address below will appear on the final report		Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX			Date and Time Required for all E&P TATs: dd-mmm-yy hh:mm																
Street:	374 Wellington Street West, Suite 3	Email 1	jake@pegc.ca		For tests that can not be performed according to the service level selected, you will be contacted.																
City/Province:	Toronto, ON	Email 2	corinne@pegc.ca		Analysis Request																
Postal Code:	M5V 1E3	Email 3			Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Invoice Distribution			Acidity, Alkalinity, Br, Cl, DOC, Conductivity, F, Hardness, Dissolved Metals & Mercury, Total Metals & Mercury, NH3, NO2, NO3, Total Phosphorus, pH, PO4, SO4, TDS, TOC, Low Level TSS											Number of Containers					
	Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX																			
Company:		Email 1	jake@pegc.ca																		
Contact:		Email 2																			
Project Information		Oil and Gas Required Fields (client use)																			
ALS Account # / Quote #:	Q62364	AFE/Coast Center:	PO#																		
Job #:	Ambershaw	Major/Minor Code:	Routing Code:																		
PO / AFE:		Requisitioner:																			
LSD:		Location:																			
ALS Lab Work Order # (lab use only)	L2011569		ALS Contact:	Sampler:																	
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)		Date (dd-mmm-yy)	Time (hh:mm)	Sample Type																
	M4		u	14:01	Surface Water	x	x	x	x	x											9
	M1		u	15:33	Surface Water	x	x	x	x	x											6
	M3		u	16:45	Surface Water	x	x	x	x	x											6
	TC1		u	16:59	Surface Water	x	x	x	x	x											u
	TC1 - DUP		u	17:30	Surface Water	x	x	x	x	x											u
	M2		22-Oct-14	14:45	Surface Water	x	x	x	x	x											u
	PL1			17:01	Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
					Surface Water	x	x	x	x	x											u
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)			SAMPLE CONDITION AS RECEIVED (lab use only)																
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Frozen <input type="checkbox"/> SIF Observations Yes <input type="checkbox"/> No <input type="checkbox"/>																
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO					Ice Packs <input type="checkbox"/> Ice Cubes <input type="checkbox"/> Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>																
					Cooling Initiated <input type="checkbox"/>																
					INITIAL COOLER TEMPERATURES °C					FINAL COOLER TEMPERATURES °C											
					11-7																
SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (lab use only)			FINAL SHIPMENT RECEPTION (lab use only)															
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:										
Jake McQueen	23-Oct-2017		[Signature]	Oct 23 17	3:35																

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

OCTOBER 2015 FRONT

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

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



PALMER ENVIRONMENTAL CONSULTING
GROUP INC. (Richmond Hill)
ATTN: Jake McQueen
374 Wellington Street West
Suite 3
Toronto ON M5V 1E3

Date Received: 29-MAY-18
Report Date: 07-JUN-18 15:00 (MT)
Version: FINAL

Client Phone: 647-795-8153

Certificate of Analysis

Lab Work Order #: L2102010
Project P.O. #: NOT SUBMITTED
Job Reference: AMBERSHAW
C of C Numbers:
Legal Site Desc:

<Original signed by>

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-1 BGL - 5							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	23.3		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	8.76		0.50	mg/L		05-JUN-18	
pH	6.81		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	26		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	2.5		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	8.1		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.36		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.029		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.040		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.17		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.21		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0049		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.93		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	6.9		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	7.0		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0506		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00021		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00449		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000124		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.69		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000016		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00023		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.167		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.615		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00729		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-1 BGL - 5							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000069		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.455		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00125		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000088		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.70		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.976		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0116		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.68		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00052		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000063		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0056		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0414		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00016		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00439		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	0.0000150		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	2.49		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000017		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00027		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00040		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.087		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	0.000083		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-1 BGL - 5 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.618		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00204		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000065		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	0.00092		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.490		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00125		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	0.000051		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.61		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	1.03		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0113		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Sulfur (S)-Dissolved	0.69		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00047		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000060		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0170	DTC	0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-2 BGL - 3 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	37.6		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	15.1		0.50	mg/L		02-JUN-18	
pH	7.05		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.8		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	25		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	2.8		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	13.9		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.28		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.022		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-2 BGL - 3							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.45		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.45		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0118		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.02		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	9.5		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	9.5		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0295		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00017		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00926		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	5.30		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00017		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.285		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000081		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.647		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0191		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000054		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	1.15		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00150		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000067		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	0.96		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.898		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0132		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.76		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-2 BGL - 3							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	<0.00075	DLM	0.00075	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000025		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0164		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00015		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00889		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	5.01		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00035		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.147		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Magnesium (Mg)-Dissolved	0.621		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00338		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000052		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	1.15		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00154		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	0.000053		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	0.879		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	0.879		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0129		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-2 BGL - 3 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.72		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000023		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-3 BGL - 2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	23.9		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	8.86		0.50	mg/L		02-JUN-18	
pH	6.84		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	17		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	2.3		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	7.6		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.35		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.028		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.040		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.42		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.46		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0067		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.83		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	7.0		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	7.3		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0529		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00019		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-3 BGL - 2							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00431		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.61		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000016		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00027		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.132		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.618		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00711		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000079		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.465		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00128		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000097		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.67		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	1.02		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0114		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.66		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00047		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000066		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000061		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0399		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-3 BGL - 2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00019		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00408		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	2.55		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000014		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00015		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00027		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.077		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Magnesium (Mg)-Dissolved	0.604		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00226		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000061		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.471		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00135		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.65		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	1.02		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0113		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Sulfur (S)-Dissolved	0.64		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00032		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000060		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-4 BGL - 1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-4 BGL - 1							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	23.4		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	6.03		0.50	mg/L		05-JUN-18	
pH	6.16		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	28		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	3.4		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	3.2		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.044		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	2.74		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.028		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.034		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.59		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.62		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0255		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.57		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	12.7		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	13.1		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.151		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00031		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00503		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	0.0000175		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	1.65		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	0.000019		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00032		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.235		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	0.000105		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	0.475		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0171		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-4 BGL - 1							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	0.0000060		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.453		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00151		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000068		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.51		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	2.25		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.00990		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00096		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	0.000051		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	0.0038		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	0.000138		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.170		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00029		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00567		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	0.0000310	DTC	0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	1.60		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000020		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00034		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	0.00012		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00047		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.327	DTC	0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	0.000164		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-4 BGL - 1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.492		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.0205		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	0.0000053		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.484		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00158		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.42		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	2.24		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.00988		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00135		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000056		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0032		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	0.000126		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-5 BEND - 1 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	22.6		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	8.75		0.50	mg/L		05-JUN-18	
pH	6.90		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	23		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	2.3		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	6.6		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.28		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.027		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.033		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-5 BEND - 1 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.22		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.25		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0064		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.80		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	7.1		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	7.1		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0560		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00020		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00428		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000052		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.57		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000016		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00023		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.149		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000057		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.614		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00762		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000084		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.452		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00137		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000061		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.68		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.984		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0115		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.58		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-5 BEND - 1							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00050		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000067		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0406		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00017		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00444		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	2.48		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000018		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00043		0.00010	mg/L	30-MAY-18	04-JUN-18	R4069230
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00030		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.088		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Magnesium (Mg)-Dissolved	0.621		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00196		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000159		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.463		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00133		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.63		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	0.983		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0114		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-5 BEND - 1 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.57		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00031		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000066		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0013		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-6 TC2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	23.3		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	8.65		0.50	mg/L		02-JUN-18	
pH	6.94		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	21		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	2.1		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	8.3		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.43		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.028		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.029		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.20		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.23		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0065		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.80		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	6.3		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	6.4		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0465		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00019		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-6 TC2							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00424		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000087		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.62		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000015		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00024		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.128		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.627		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00677		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000059		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.445		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00125		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000064		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.58		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	1.07		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0118		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.66		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	<0.00090	DLM	0.00090	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000081		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0038		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0271		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-6 TC2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00015		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00418		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	2.44		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000016		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00015		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00026		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.061		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Magnesium (Mg)-Dissolved	0.624		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00149		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000066		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.450		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00131		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.51		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	1.06		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0114		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Sulfur (S)-Dissolved	0.67		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000074		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0022		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-7 BL4 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-7 BL4							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	23.6		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	9.83		0.50	mg/L		02-JUN-18	
pH	6.73		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.2		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	28		10	mg/L		30-MAY-18	R4063408
Anions and Nutrients							
Acidity (as CaCO3)	3.0		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	7.7		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.40		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.32		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.32		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0094		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.04		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	11.7		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	12.2		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0895		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00029		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00494		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000083		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	3.13		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000017		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00040		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	0.00014		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00079		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.322		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000083		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.599		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0288		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-7 BL4							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.482		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00159		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000080		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.32		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.879		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0100		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	<0.50		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00139		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000020		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000068		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0686		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00024		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00520		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	2.96		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	0.000018		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00025		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	0.00011		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00064		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.219		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	0.000051		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-7 BL4 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.594		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.0253		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.488		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00173		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.23		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	0.889		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.00954		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00075		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000019		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0022		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	0.000077		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-8 WL2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	31.4		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	14.1		0.50	mg/L		02-JUN-18	
pH	7.05		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.8		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	28		10	mg/L		31-MAY-18	R4064025
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	11.9		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.17		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-8 WL2							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.24		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.24		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0083		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.60		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	8.8		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	9.0		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0589		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00026		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00482		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	4.68		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00026		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00076		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.133		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000052		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.619		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0136		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.430		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00119		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000111		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.11		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.759		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0103		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.67		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-8 WL2							
Sampled By: JMQ on 25-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00083		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000017		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					30-MAY-18	R4064751
Aluminum (Al)-Dissolved	0.0399		0.0020	mg/L	30-MAY-18	01-JUN-18	R4065287
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Arsenic (As)-Dissolved	0.00022		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Barium (Ba)-Dissolved	0.00483		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Boron (B)-Dissolved	<0.010		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Calcium (Ca)-Dissolved	4.64		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Chromium (Cr)-Dissolved	0.00015		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Copper (Cu)-Dissolved	0.00048		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Iron (Fe)-Dissolved	0.078		0.010	mg/L	30-MAY-18	01-JUN-18	R4065287
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Magnesium (Mg)-Dissolved	0.601		0.0050	mg/L	30-MAY-18	01-JUN-18	R4065287
Manganese (Mn)-Dissolved	0.00960		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Potassium (K)-Dissolved	0.432		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Rubidium (Rb)-Dissolved	0.00121		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Selenium (Se)-Dissolved	0.000054		0.000050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silicon (Si)-Dissolved	1.03		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Sodium (Na)-Dissolved	0.770		0.050	mg/L	30-MAY-18	01-JUN-18	R4065287
Strontium (Sr)-Dissolved	0.0102		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-8 WL2 Sampled By: JMQ on 25-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.58		0.50	mg/L	30-MAY-18	01-JUN-18	R4065287
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	30-MAY-18	01-JUN-18	R4065287
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Titanium (Ti)-Dissolved	0.00039		0.00030	mg/L	30-MAY-18	01-JUN-18	R4065287
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	30-MAY-18	01-JUN-18	R4065287
Uranium (U)-Dissolved	0.000017		0.000010	mg/L	30-MAY-18	01-JUN-18	R4065287
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	30-MAY-18	01-JUN-18	R4065287
Zinc (Zn)-Dissolved	0.0057		0.0010	mg/L	30-MAY-18	01-JUN-18	R4065287
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	30-MAY-18	01-JUN-18	R4065287
L2102010-9 PL1 Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	45.8		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	20.3		0.50	mg/L		07-JUN-18	
pH	7.40		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.4		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	30		10	mg/L		31-MAY-18	R4064025
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	22.0		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.042		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.15		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.029		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.33		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.36		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0080		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.50		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	5.8		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	6.3		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0132		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00013		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-9 PL1							
Sampled By: JMQ on 26-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.0129		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000087		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	6.93		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000011		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00027		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.167		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000053		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.698		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0355		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	1.16		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00189		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	2.14		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.905		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0170		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.61		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00032		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					05-JUN-18	R4070510
Aluminum (Al)-Dissolved	0.0042		0.0020	mg/L	05-JUN-18	05-JUN-18	R4072837

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-9 PL1 Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Arsenic (As)-Dissolved	0.00011		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Barium (Ba)-Dissolved	0.0113		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Boron (B)-Dissolved	<0.010		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Calcium (Ca)-Dissolved	7.01		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Iron (Fe)-Dissolved	0.085		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Magnesium (Mg)-Dissolved	0.670		0.0050	mg/L	05-JUN-18	05-JUN-18	R4072837
Manganese (Mn)-Dissolved	0.00284		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Potassium (K)-Dissolved	1.09		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Rubidium (Rb)-Dissolved	0.00182		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silicon (Si)-Dissolved	2.14		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Sodium (Na)-Dissolved	0.845		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Strontium (Sr)-Dissolved	0.0169		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	05-JUN-18	05-JUN-18	R4072837
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	05-JUN-18	05-JUN-18	R4072837
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	05-JUN-18	05-JUN-18	R4072837
L2102010-10 TC1 Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-10 TC1							
Sampled By: JMQ on 26-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	26.0		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	7.67		0.50	mg/L		07-JUN-18	
pH	6.76		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.2		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	23		10	mg/L		31-MAY-18	R4064162
Anions and Nutrients							
Acidity (as CaCO3)	2.1		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	5.9		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	2.37		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.021		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.29		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.29		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0092		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.12		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	10.9		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	9.1		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0498		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00025		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00360		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000068		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.28		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00042		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.358		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000134		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.592		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00800		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-10 TC1							
Sampled By: JMQ on 26-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.359		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00109		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000097		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.67		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	2.13		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.00984		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	<0.50		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00072		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000076		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000082		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					05-JUN-18	R4070510
Aluminum (Al)-Dissolved	0.0338		0.0020	mg/L	05-JUN-18	05-JUN-18	R4072837
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Arsenic (As)-Dissolved	0.00022		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Barium (Ba)-Dissolved	0.00327		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Boron (B)-Dissolved	<0.010		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cadmium (Cd)-Dissolved	0.0000062		0.0000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Calcium (Ca)-Dissolved	2.15		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Chromium (Cr)-Dissolved	0.00022		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Copper (Cu)-Dissolved	0.00027		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Iron (Fe)-Dissolved	0.239		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Lead (Pb)-Dissolved	0.000056		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-10 TC1 Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.561		0.0050	mg/L	05-JUN-18	05-JUN-18	R4072837
Manganese (Mn)-Dissolved	0.00509		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Potassium (K)-Dissolved	0.352		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Rubidium (Rb)-Dissolved	0.00106		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Selenium (Se)-Dissolved	0.000052		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silicon (Si)-Dissolved	1.59		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Sodium (Na)-Dissolved	2.05		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Strontium (Sr)-Dissolved	0.00936		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	05-JUN-18	05-JUN-18	R4072837
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Titanium (Ti)-Dissolved	0.00041		0.00030	mg/L	05-JUN-18	05-JUN-18	R4072837
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Uranium (U)-Dissolved	0.000070		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Zinc (Zn)-Dissolved	0.0029		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Zirconium (Zr)-Dissolved	0.000078		0.000060	mg/L	05-JUN-18	05-JUN-18	R4072837
L2102010-11 TC1 - DUP Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	26.0		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	8.16		0.50	mg/L		07-JUN-18	
pH	6.75		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	33		10	mg/L		31-MAY-18	R4064162
Anions and Nutrients							
Acidity (as CaCO3)	2.2		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	5.5		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	2.34		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.021		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-11 TC1 - DUP Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.27		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.27		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0071		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.29		0.30	mg/L		30-MAY-18	R4062864
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	8.9		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	8.8		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0475		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00026		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00362		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000148		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	2.43		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00040		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.348		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000157		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.595		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00766		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.359		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00108		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000091		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.63		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	2.17		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.00997		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	1.08		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-11 TC1 - DUP Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	<0.00090	DLM	0.00090	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000077		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000084		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					05-JUN-18	R4070510
Aluminum (Al)-Dissolved	0.0358		0.0020	mg/L	05-JUN-18	05-JUN-18	R4072837
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Arsenic (As)-Dissolved	0.00025		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Barium (Ba)-Dissolved	0.00363		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Boron (B)-Dissolved	<0.010		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cadmium (Cd)-Dissolved	0.0000195		0.0000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Calcium (Ca)-Dissolved	2.33		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Chromium (Cr)-Dissolved	0.00132	DTC	0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Copper (Cu)-Dissolved	0.00067		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Iron (Fe)-Dissolved	0.248		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Lead (Pb)-Dissolved	0.000105		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Magnesium (Mg)-Dissolved	0.567		0.0050	mg/L	05-JUN-18	05-JUN-18	R4072837
Manganese (Mn)-Dissolved	0.00559		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Potassium (K)-Dissolved	0.391		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Rubidium (Rb)-Dissolved	0.00112		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silicon (Si)-Dissolved	1.64		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Sodium (Na)-Dissolved	2.08		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Strontium (Sr)-Dissolved	0.00960		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-11 TC1 - DUP Sampled By: JMQ on 26-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.55		0.50	mg/L	05-JUN-18	05-JUN-18	R4072837
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Titanium (Ti)-Dissolved	0.00072		0.00030	mg/L	05-JUN-18	05-JUN-18	R4072837
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Uranium (U)-Dissolved	0.000069		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Zinc (Zn)-Dissolved	0.0274	DTC	0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Zirconium (Zr)-Dissolved	0.000086		0.000060	mg/L	05-JUN-18	05-JUN-18	R4072837
L2102010-12 M1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	24.0		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	10.1		0.50	mg/L		07-JUN-18	
pH	6.91		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	2.0		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	23		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	2.3		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	9.1		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.14		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.37		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.37		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0179		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	0.85		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	8.8		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	9.6		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0263		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00021		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-12 M1							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00869		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	3.10		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000020		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00019		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00053		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.283		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.594		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.00999		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.772		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00201		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000082		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.09		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.788		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0105		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	<0.50		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00039		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					05-JUN-18	R4070510
Aluminum (Al)-Dissolved	0.0167		0.0020	mg/L	05-JUN-18	05-JUN-18	R4072837

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-12 M1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Barium (Ba)-Dissolved	0.00807		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Boron (B)-Dissolved	<0.010		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Calcium (Ca)-Dissolved	3.12		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Cesium (Cs)-Dissolved	0.000020		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Copper (Cu)-Dissolved	0.00033		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Iron (Fe)-Dissolved	0.179		0.010	mg/L	05-JUN-18	05-JUN-18	R4072837
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Magnesium (Mg)-Dissolved	0.568		0.0050	mg/L	05-JUN-18	05-JUN-18	R4072837
Manganese (Mn)-Dissolved	0.00146		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Potassium (K)-Dissolved	0.737		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Rubidium (Rb)-Dissolved	0.00199		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silicon (Si)-Dissolved	1.08		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Sodium (Na)-Dissolved	0.694		0.050	mg/L	05-JUN-18	05-JUN-18	R4072837
Strontium (Sr)-Dissolved	0.0102		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	05-JUN-18	05-JUN-18	R4072837
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	05-JUN-18	05-JUN-18	R4072837
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	05-JUN-18	05-JUN-18	R4072837
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	05-JUN-18	05-JUN-18	R4072837
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	05-JUN-18	05-JUN-18	R4072837
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	05-JUN-18	05-JUN-18	R4072837
Zinc (Zn)-Dissolved	0.0077		0.0010	mg/L	05-JUN-18	05-JUN-18	R4072837
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	05-JUN-18	05-JUN-18	R4072837
L2102010-13 M2 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-13 M2							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	18.9		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	7.10		0.50	mg/L		04-JUN-18	
pH	6.81		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.9		1.0	mg/L		31-MAY-18	R4063790
Total Dissolved Solids	20		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	2.2		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	6.7		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.18		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.31		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.31		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0063		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.22		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	8.4		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	8.7		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0403		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00022		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00566		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	1.97		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000017		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00025		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00065		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.178		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.638		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0132		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-13 M2							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	0.00056		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.512		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00163		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000096		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.37		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	0.861		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.00886		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.59		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00047		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000024		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0101		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000064		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					01-JUN-18	R4064754
Aluminum (Al)-Dissolved	0.0255		0.0020	mg/L	01-JUN-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	0.00012		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00018		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00541		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	1.92		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000019		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.093		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-13 M2 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.558		0.0050	mg/L	01-JUN-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00231		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.463		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00146		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.30		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	0.764		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.00841		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	01-JUN-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	01-JUN-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	0.000021		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0021		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	01-JUN-18	02-JUN-18	R4067029
L2102010-14 M3 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	39.8		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	14.6		0.50	mg/L		04-JUN-18	
pH	6.87		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	28		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	3.0		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	13.4		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	<0.020		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	1.97		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	0.049		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-14 M3							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.32		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.37		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0081		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.13		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	7.6		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	8.3		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0202		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00019		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.00713		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000051		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	4.99		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000029		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00030		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00091		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.203		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.656		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0186		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000999		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.559		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00195		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000081		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.90		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	1.86		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0136		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	<0.50		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-14 M3							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					01-JUN-18	R4064754
Aluminum (Al)-Dissolved	0.0145		0.0020	mg/L	01-JUN-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00014		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00706		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	4.86		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000029		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00072		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.144		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.588		0.0050	mg/L	01-JUN-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.0154		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	0.000937		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.522		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00191		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000060		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.82		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	1.71		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0130		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-14 M3 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	01-JUN-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	01-JUN-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0025		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	01-JUN-18	02-JUN-18	R4067029
L2102010-15 BL1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	29.4		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	11.3		0.50	mg/L		05-JUN-18	
pH	6.97		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.1		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	25		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	9.9		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.023		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.97		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.36		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.36		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0066		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.21		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	8.4		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	9.0		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0325		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00022		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-15 BL1							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00490		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000164		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	3.68		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000016		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00029		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00080		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.105		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.633		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0137		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	0.573		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00181		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000060		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	1.83		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	1.26		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0109		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.56		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00043		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0034		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					01-JUN-18	R4064754
Aluminum (Al)-Dissolved	0.0227		0.0020	mg/L	01-JUN-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-15 BL1 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00017		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00464		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	3.60		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000015		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00050		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.063		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.570		0.0050	mg/L	01-JUN-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00508		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.523		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00179		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.74		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	1.14		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0103		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	01-JUN-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	0.00038		0.00030	mg/L	01-JUN-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0161	DTC	0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	01-JUN-18	02-JUN-18	R4067029
L2102010-16 SL6 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-16 SL6							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	65.6		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	24.6		0.50	mg/L		05-JUN-18	
pH	7.32		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.7		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	48		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	2.3		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	22.3		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.022		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	4.56		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864
Total Kjeldahl Nitrogen	0.45		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.45		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0149		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.35		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	10.1		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	11.2		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0711		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00020		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.0136		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	0.0000069		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	8.92		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	0.000014		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00030		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00093		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.733		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	0.000089		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.851		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0349		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-16 SL6							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000056		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	0.00052		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	1.38		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00211		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000079		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	2.51		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	3.02		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0219		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	0.88		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00250		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000027		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0058		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	0.000088		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					01-JUN-18	R4064754
Aluminum (Al)-Dissolved	0.0101		0.0020	mg/L	01-JUN-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00014		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.0117		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	8.57		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00023		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00057		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.248		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-16 SL6 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.765		0.0050	mg/L	01-JUN-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00402		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	1.32		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00206		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000056		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	2.26		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	2.85		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0194		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	0.58		0.50	mg/L	01-JUN-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	01-JUN-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	0.000016		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0258	DTC	0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	01-JUN-18	02-JUN-18	R4067029
L2102010-17 SL5 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	54.7		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	23.3		0.50	mg/L		05-JUN-18	
pH	7.27		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	1.4		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	47		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	2.4		2.0	mg/L		03-JUN-18	R4066010
Alkalinity, Total (as CaCO3)	23.8		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.025		0.020	mg/L		04-JUN-18	R4069331
Bromide (Br)	<0.10		0.10	mg/L		30-MAY-18	R4062864
Chloride (Cl)	0.36		0.10	mg/L		30-MAY-18	R4062864
Fluoride (F)	0.022		0.020	mg/L		30-MAY-18	R4062864
Nitrate (as N)	<0.020		0.020	mg/L		30-MAY-18	R4062864
Nitrite (as N)	<0.010		0.010	mg/L		30-MAY-18	R4062864

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-17 SL5							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.43		0.15	mg/L	31-MAY-18	01-JUN-18	R4064020
Total Nitrogen	0.43		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		30-MAY-18	R4062886
Phosphorus (P)-Total	0.0104		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.74		0.30	mg/L		02-JUN-18	R4065588
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					01-JUN-18	R4063880
Dissolved Organic Carbon	11.2		1.0	mg/L	01-JUN-18	01-JUN-18	R4066468
Total Organic Carbon	11.4		1.0	mg/L		01-JUN-18	R4066427
Total Metals							
Aluminum (Al)-Total	0.0284		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Arsenic (As)-Total	0.00020		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Barium (Ba)-Total	0.0108		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Boron (B)-Total	<0.010		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Calcium (Ca)-Total	8.16		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Chromium (Cr)-Total	0.00022		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Copper (Cu)-Total	0.00080		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Iron (Fe)-Total	0.203		0.010	mg/L	30-MAY-18	30-MAY-18	R4063031
Lead (Pb)-Total	<0.000050		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Lithium (Li)-Total	<0.0010		0.0010	mg/L	30-MAY-18	30-MAY-18	R4063031
Magnesium (Mg)-Total	0.966		0.0050	mg/L	30-MAY-18	30-MAY-18	R4063031
Manganese (Mn)-Total	0.0334		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		30-MAY-18	R4062224
Molybdenum (Mo)-Total	0.000052		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Nickel (Ni)-Total	0.00076		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Phosphorus (P)-Total	<0.050		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Potassium (K)-Total	1.49		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Rubidium (Rb)-Total	0.00179		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Selenium (Se)-Total	0.000088		0.000050	mg/L	30-MAY-18	30-MAY-18	R4063031
Silicon (Si)-Total	3.56		0.10	mg/L	30-MAY-18	30-MAY-18	R4063031
Silver (Ag)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Sodium (Na)-Total	1.39		0.050	mg/L	30-MAY-18	30-MAY-18	R4063031
Strontium (Sr)-Total	0.0220		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031
Sulfur (S)-Total	1.26		0.50	mg/L	30-MAY-18	30-MAY-18	R4063031
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	30-MAY-18	30-MAY-18	R4063031

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-17 SL5							
Sampled By: JMQ on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Thorium (Th)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Tin (Sn)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Titanium (Ti)-Total	0.00039		0.00030	mg/L	30-MAY-18	30-MAY-18	R4063031
Tungsten (W)-Total	<0.00010		0.00010	mg/L	30-MAY-18	30-MAY-18	R4063031
Uranium (U)-Total	0.000011		0.000010	mg/L	30-MAY-18	30-MAY-18	R4063031
Vanadium (V)-Total	<0.00050		0.00050	mg/L	30-MAY-18	30-MAY-18	R4063031
Zinc (Zn)-Total	0.0047		0.0030	mg/L	30-MAY-18	30-MAY-18	R4063031
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	30-MAY-18	30-MAY-18	R4063031
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					30-MAY-18	R4062181
Dissolved Metals Filtration Location	FIELD					01-JUN-18	R4064754
Aluminum (Al)-Dissolved	0.0194		0.0020	mg/L	01-JUN-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00013		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.0103		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	7.92		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00065		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.118		0.010	mg/L	01-JUN-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.854		0.0050	mg/L	01-JUN-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00787		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	30-MAY-18	30-MAY-18	R4062230
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	0.00061		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	1.41		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00171		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	3.39		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	1.27		0.050	mg/L	01-JUN-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0207		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2102010-17 SL5 Sampled By: JMQ on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.89		0.50	mg/L	01-JUN-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	01-JUN-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	01-JUN-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	01-JUN-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	01-JUN-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	01-JUN-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0307	DTC	0.0010	mg/L	01-JUN-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	0.000067		0.000060	mg/L	01-JUN-18	02-JUN-18	R4067029

* 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)
Method Blank	Sulfate (SO4)	B	L2102010-1, -10, -11, -2, -3, -5, -6, -7, -8, -9
Duplicate	Chromium (Cr)-Dissolved	DUP-H	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Aluminum (Al)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Arsenic (As)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Boron (B)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2102010-10, -11, -12, -9
Matrix Spike	Chromium (Cr)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Copper (Cu)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2102010-10, -11, -12, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2102010-10, -11, -12, -9
Matrix Spike	Molybdenum (Mo)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Potassium (K)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Rubidium (Rb)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Selenium (Se)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2102010-10, -11, -12, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2102010-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2102010-10, -11, -12, -9
Matrix Spike	Tungsten (W)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Vanadium (V)-Dissolved	MS-B	L2102010-13, -14, -15, -16, -17
Matrix Spike	Calcium (Ca)-Total	MS-B	L2102010-1, -10, -11, -12, -13, -14, -15, -16, -17, -2, -3, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2102010-1, -10, -11, -12, -13, -14, -15, -16, -17, -2, -3, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L2102010-1, -10, -11, -12, -13, -14, -15, -16, -17, -2, -3, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L2102010-1, -10, -11, -12, -13, -14, -15, -16, -17, -2, -3, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L2102010-1, -10, -11, -12, -13, -14, -15, -16, -17, -2, -3, -5, -6, -7, -8, -9

Sample Parameter Qualifier key listed:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
DUP-H	Duplicate results outside ALS DQO, due to sample heterogeneity.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-TITR-TB	Water	Acidity	APHA 2310 B modified This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.

Reference Information

BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
DOC-TB	Water	Dissolved Organic Carbon	APHA 5310 B modified
Water samples are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis. Analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
EC-TITR-TB	Water	Conductivity	APHA 2510 B
This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.			
F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
HARDNESS-CALC-TB	Water	Hardness (as CaCO ₃)	CALCULATION
HG-D-CVAF-TB	Water	Dissolved Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
HG-T-CVAF-TB	Water	Total Mercury in Water by CVAFS	EPA 1631E (mod)
Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.			
MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC ICPMS	APHA 3030B/6020B (mod)
Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
MET-T-CCMS-TB	Water	Total Metals in Water by CRC ICPMS	EPA 200.2/6020B (mod)
Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.			
Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.			
N-T-CALC-TB	Water	Total Nitrogen (Calculation)	APHA 4500 N-Calculated
Total Nitrogen is a calculated parameter. Total Nitrogen = Total Kjeldahl Nitrogen +[Nitrate and Nitrite (as N)]			
NH3-COL-TB	Water	Ammonia by Discrete Analyzer	APHA 4500-NH ₃ G. (modified)
Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.			
NO2-IC-N-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-IC-N-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
PH-TITR-TB	Water	pH	APHA 4500-H
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
SO4-IC-N-TB	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)
Aqueous matrices are analyzed using gravimetry and evaporation			
TKN-COL-TB	Water	Total Kjeldahl Nitrogen	APHA 4500-Norg (modified)
Total Kjeldahl Nitrogen in aqueous matrices is analyzed using a discrete analyzer with colourimetric detection.			
TOC-TB	Water	Total Organic Carbon (TOC)	APHA 5310 B modified
Water samples are analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
TSS-L-TB	Water	Low Level Total Suspended Solids	APHA 2540 D (modified)

Reference Information

Aqueous matrices are analyzed using gravimetry.

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

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

Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 1 of 23

Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)
 374 Wellington Street West Suite 3
 Toronto ON M5V 1E3

Contact: Jake McQueen

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-TITR-TB								
	Water							
Batch	R4066010							
WG2787397-5	LCS							
Acidity (as CaCO3)			101.4		%		85-115	03-JUN-18
WG2787397-4	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	03-JUN-18
ALK-TITR-TB								
	Water							
Batch	R4062791							
WG2784339-6	DUP	L2102010-3						
Alkalinity, Total (as CaCO3)		7.6	7.0		mg/L	8.2	20	30-MAY-18
WG2784339-2	LCS							
Alkalinity, Total (as CaCO3)			102.3		%		85-115	30-MAY-18
WG2784339-5	LCS							
Alkalinity, Total (as CaCO3)			100.1		%		85-115	30-MAY-18
WG2784339-1	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	30-MAY-18
WG2784339-4	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	30-MAY-18
BR-IC-N-TB								
	Water							
Batch	R4062864							
WG2784073-7	DUP	L2102010-4						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784073-2	LCS							
Bromide (Br)			108.8		%		85-115	30-MAY-18
WG2784073-6	LCS							
Bromide (Br)			101.9		%		85-115	30-MAY-18
WG2784073-1	MB							
Bromide (Br)			<0.10		mg/L		0.1	30-MAY-18
WG2784073-5	MB							
Bromide (Br)			<0.10		mg/L		0.1	30-MAY-18
WG2784073-8	MS	L2102010-12						
Bromide (Br)			91.1		%		75-125	30-MAY-18
CL-L-IC-N-TB								
	Water							
Batch	R4062864							
WG2784073-7	DUP	L2102010-4						
Chloride (Cl)		2.74	2.72		mg/L	0.6	20	30-MAY-18
WG2784073-2	LCS							
Chloride (Cl)			99.7		%		90-110	30-MAY-18
WG2784073-6	LCS							
Chloride (Cl)			98.4		%		90-110	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 2 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-L-IC-N-TB								
	Water							
Batch	R4062864							
WG2784073-1	MB							
Chloride (Cl)			<0.10		mg/L		0.1	30-MAY-18
WG2784073-5	MB							
Chloride (Cl)			<0.10		mg/L		0.1	30-MAY-18
WG2784073-8	MS	L2102010-12						
Chloride (Cl)			95.4		%		75-125	30-MAY-18
DOC-TB								
	Water							
Batch	R4066468							
WG2786348-3	DUP	L2102010-5						
Dissolved Organic Carbon		7.1	6.9		mg/L	2.4	20	01-JUN-18
WG2786348-2	LCS							
Dissolved Organic Carbon			111.8		%		80-120	01-JUN-18
WG2786348-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	01-JUN-18
WG2786348-4	MS	L2102010-6						
Dissolved Organic Carbon			103.5		%		70-130	01-JUN-18
EC-TITR-TB								
	Water							
Batch	R4062791							
WG2784339-6	DUP	L2102010-3						
Conductivity (EC)		23.9	23.3		uS/cm	2.5	10	30-MAY-18
WG2784339-2	LCS							
Conductivity (EC)			98.9		%		90-110	30-MAY-18
WG2784339-5	LCS							
Conductivity (EC)			99.3		%		90-110	30-MAY-18
WG2784339-1	MB							
Conductivity (EC)			<3.0		uS/cm		3	30-MAY-18
WG2784339-4	MB							
Conductivity (EC)			<3.0		uS/cm		3	30-MAY-18
F-IC-N-TB								
	Water							
Batch	R4062864							
WG2784073-7	DUP	L2102010-4						
Fluoride (F)		0.028	0.028		mg/L	0.2	20	30-MAY-18
WG2784073-2	LCS							
Fluoride (F)			101.2		%		90-110	30-MAY-18
WG2784073-6	LCS							
Fluoride (F)			103.2		%		90-110	30-MAY-18
WG2784073-1	MB							
Fluoride (F)			<0.020		mg/L		0.02	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 3 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-TB								
Water								
Batch	R4062864							
WG2784073-5	MB							
Fluoride (F)			<0.020		mg/L		0.02	30-MAY-18
WG2784073-8	MS	L2102010-12						
Fluoride (F)			100.8		%		75-125	30-MAY-18
HG-D-CVAF-TB								
Water								
Batch	R4062230							
WG2784309-7	DUP	L2102010-15						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784309-2	LCS							
Mercury (Hg)-Dissolved			100.7		%		80-120	30-MAY-18
WG2784309-6	LCS							
Mercury (Hg)-Dissolved			103.4		%		80-120	30-MAY-18
WG2784309-1	MB							
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	30-MAY-18
WG2784309-5	MB							
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	30-MAY-18
WG2784309-8	MS	L2102010-16						
Mercury (Hg)-Dissolved			94.6		%		70-130	30-MAY-18
HG-T-CVAF-TB								
Water								
Batch	R4062224							
WG2784313-7	DUP	L2102010-15						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784313-2	LCS							
Mercury (Hg)-Total			102.6		%		80-120	30-MAY-18
WG2784313-6	LCS							
Mercury (Hg)-Total			97.3		%		80-120	30-MAY-18
WG2784313-1	MB							
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	30-MAY-18
WG2784313-5	MB							
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	30-MAY-18
WG2784313-8	MS	L2102010-16						
Mercury (Hg)-Total			92.9		%		70-130	30-MAY-18
MET-D-CCMS-TB								
Water								
Batch	R4065287							
WG2784069-10	LCS							
Aluminum (Al)-Dissolved			104.1		%		80-120	01-JUN-18
Antimony (Sb)-Dissolved			99.9		%		80-120	01-JUN-18
Arsenic (As)-Dissolved			100.4		%		80-120	01-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 4 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4065287							
WG2784069-10	LCS							
Barium (Ba)-Dissolved			102.3		%		80-120	01-JUN-18
Beryllium (Be)-Dissolved			99.9		%		80-120	01-JUN-18
Bismuth (Bi)-Dissolved			103.4		%		80-120	01-JUN-18
Boron (B)-Dissolved			98.9		%		80-120	01-JUN-18
Cadmium (Cd)-Dissolved			101.9		%		80-120	01-JUN-18
Calcium (Ca)-Dissolved			99.4		%		80-120	01-JUN-18
Cesium (Cs)-Dissolved			100.2		%		80-120	01-JUN-18
Chromium (Cr)-Dissolved			101.4		%		80-120	01-JUN-18
Cobalt (Co)-Dissolved			102.7		%		80-120	01-JUN-18
Copper (Cu)-Dissolved			102.3		%		80-120	01-JUN-18
Iron (Fe)-Dissolved			101.0		%		80-120	01-JUN-18
Lead (Pb)-Dissolved			102.4		%		80-120	01-JUN-18
Lithium (Li)-Dissolved			99.6		%		80-120	01-JUN-18
Magnesium (Mg)-Dissolved			105.3		%		80-120	01-JUN-18
Manganese (Mn)-Dissolved			99.9		%		80-120	01-JUN-18
Molybdenum (Mo)-Dissolved			101.0		%		80-120	01-JUN-18
Nickel (Ni)-Dissolved			100.0		%		80-120	01-JUN-18
Phosphorus (P)-Dissolved			104.2		%		80-120	01-JUN-18
Potassium (K)-Dissolved			106.5		%		80-120	01-JUN-18
Rubidium (Rb)-Dissolved			97.1		%		80-120	01-JUN-18
Selenium (Se)-Dissolved			97.0		%		80-120	01-JUN-18
Silicon (Si)-Dissolved			104.4		%		80-120	01-JUN-18
Silver (Ag)-Dissolved			104.3		%		80-120	01-JUN-18
Sodium (Na)-Dissolved			104.9		%		80-120	01-JUN-18
Strontium (Sr)-Dissolved			99.8		%		80-120	01-JUN-18
Sulfur (S)-Dissolved			109.0		%		80-120	01-JUN-18
Tellurium (Te)-Dissolved			99.8		%		80-120	01-JUN-18
Thallium (Tl)-Dissolved			100.9		%		80-120	01-JUN-18
Thorium (Th)-Dissolved			100.7		%		80-120	01-JUN-18
Tin (Sn)-Dissolved			101.6		%		80-120	01-JUN-18
Titanium (Ti)-Dissolved			96.6		%		80-120	01-JUN-18
Tungsten (W)-Dissolved			100.9		%		80-120	01-JUN-18
Uranium (U)-Dissolved			103.4		%		80-120	01-JUN-18
Vanadium (V)-Dissolved			103.8		%		80-120	01-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 5 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4065287							
WG2784069-10 LCS								
Zinc (Zn)-Dissolved			95.1		%		80-120	01-JUN-18
Zirconium (Zr)-Dissolved			98.6		%		80-120	01-JUN-18
WG2784069-9 MB								
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	01-JUN-18
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	01-JUN-18
Boron (B)-Dissolved			<0.010		mg/L		0.01	01-JUN-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	01-JUN-18
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	01-JUN-18
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	01-JUN-18
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	01-JUN-18
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	01-JUN-18
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	01-JUN-18
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	01-JUN-18
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	01-JUN-18
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	01-JUN-18
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	01-JUN-18
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	01-JUN-18
Potassium (K)-Dissolved			<0.050		mg/L		0.05	01-JUN-18
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	01-JUN-18
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	01-JUN-18
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	01-JUN-18
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	01-JUN-18
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	01-JUN-18
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	01-JUN-18
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	01-JUN-18
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	01-JUN-18
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	01-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 6 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4065287							
WG2784069-9	MB							
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	01-JUN-18
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	01-JUN-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	01-JUN-18
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	01-JUN-18
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	01-JUN-18
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	01-JUN-18
Batch	R4067029							
WG2786409-6	LCS							
Aluminum (Al)-Dissolved			94.2		%		80-120	02-JUN-18
Antimony (Sb)-Dissolved			95.1		%		80-120	02-JUN-18
Arsenic (As)-Dissolved			94.1		%		80-120	02-JUN-18
Barium (Ba)-Dissolved			95.7		%		80-120	02-JUN-18
Beryllium (Be)-Dissolved			97.5		%		80-120	02-JUN-18
Bismuth (Bi)-Dissolved			99.5		%		80-120	02-JUN-18
Boron (B)-Dissolved			88.3		%		80-120	02-JUN-18
Cadmium (Cd)-Dissolved			95.0		%		80-120	02-JUN-18
Calcium (Ca)-Dissolved			96.8		%		80-120	02-JUN-18
Cesium (Cs)-Dissolved			95.4		%		80-120	02-JUN-18
Chromium (Cr)-Dissolved			93.1		%		80-120	02-JUN-18
Cobalt (Co)-Dissolved			94.5		%		80-120	02-JUN-18
Copper (Cu)-Dissolved			92.9		%		80-120	02-JUN-18
Iron (Fe)-Dissolved			98.6		%		80-120	02-JUN-18
Lead (Pb)-Dissolved			101.8		%		80-120	02-JUN-18
Lithium (Li)-Dissolved			97.4		%		80-120	02-JUN-18
Magnesium (Mg)-Dissolved			97.2		%		80-120	02-JUN-18
Manganese (Mn)-Dissolved			96.2		%		80-120	02-JUN-18
Molybdenum (Mo)-Dissolved			98.7		%		80-120	02-JUN-18
Nickel (Ni)-Dissolved			91.4		%		80-120	02-JUN-18
Phosphorus (P)-Dissolved			97.1		%		80-120	02-JUN-18
Potassium (K)-Dissolved			99.0		%		80-120	02-JUN-18
Rubidium (Rb)-Dissolved			94.0		%		80-120	02-JUN-18
Selenium (Se)-Dissolved			96.9		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 7 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2786409-6	LCS							
Silicon (Si)-Dissolved			96.2		%		80-120	02-JUN-18
Silver (Ag)-Dissolved			96.7		%		80-120	02-JUN-18
Sodium (Na)-Dissolved			97.0		%		80-120	02-JUN-18
Strontium (Sr)-Dissolved			95.4		%		80-120	02-JUN-18
Sulfur (S)-Dissolved			95.9		%		80-120	02-JUN-18
Tellurium (Te)-Dissolved			99.3		%		80-120	02-JUN-18
Thallium (Tl)-Dissolved			102.6		%		80-120	02-JUN-18
Thorium (Th)-Dissolved			101.6		%		80-120	02-JUN-18
Tin (Sn)-Dissolved			95.0		%		80-120	02-JUN-18
Titanium (Ti)-Dissolved			93.8		%		80-120	02-JUN-18
Tungsten (W)-Dissolved			103.6		%		80-120	02-JUN-18
Uranium (U)-Dissolved			102.2		%		80-120	02-JUN-18
Vanadium (V)-Dissolved			95.5		%		80-120	02-JUN-18
Zinc (Zn)-Dissolved			87.5		%		80-120	02-JUN-18
Zirconium (Zr)-Dissolved			93.7		%		80-120	02-JUN-18
WG2786409-5	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	02-JUN-18
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 8 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2786409-5	MB							
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	02-JUN-18
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	02-JUN-18
Batch	R4072837							
WG2789179-2	LCS							
Aluminum (Al)-Dissolved			98.6		%		80-120	05-JUN-18
Antimony (Sb)-Dissolved			101.1		%		80-120	05-JUN-18
Arsenic (As)-Dissolved			95.7		%		80-120	05-JUN-18
Barium (Ba)-Dissolved			95.5		%		80-120	05-JUN-18
Beryllium (Be)-Dissolved			98.6		%		80-120	05-JUN-18
Bismuth (Bi)-Dissolved			96.3		%		80-120	05-JUN-18
Boron (B)-Dissolved			92.5		%		80-120	05-JUN-18
Cadmium (Cd)-Dissolved			96.2		%		80-120	05-JUN-18
Calcium (Ca)-Dissolved			97.5		%		80-120	05-JUN-18
Cesium (Cs)-Dissolved			99.1		%		80-120	05-JUN-18
Chromium (Cr)-Dissolved			96.3		%		80-120	05-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 9 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4072837							
WG2789179-2	LCS							
Cobalt (Co)-Dissolved			96.6		%		80-120	05-JUN-18
Copper (Cu)-Dissolved			96.6		%		80-120	05-JUN-18
Iron (Fe)-Dissolved			98.1		%		80-120	05-JUN-18
Lead (Pb)-Dissolved			94.6		%		80-120	05-JUN-18
Lithium (Li)-Dissolved			98.9		%		80-120	05-JUN-18
Magnesium (Mg)-Dissolved			103.8		%		80-120	05-JUN-18
Manganese (Mn)-Dissolved			95.0		%		80-120	05-JUN-18
Molybdenum (Mo)-Dissolved			97.8		%		80-120	05-JUN-18
Nickel (Ni)-Dissolved			94.8		%		80-120	05-JUN-18
Phosphorus (P)-Dissolved			98.5		%		80-120	05-JUN-18
Potassium (K)-Dissolved			100.1		%		80-120	05-JUN-18
Rubidium (Rb)-Dissolved			96.8		%		80-120	05-JUN-18
Selenium (Se)-Dissolved			97.4		%		80-120	05-JUN-18
Silicon (Si)-Dissolved			95.2		%		80-120	05-JUN-18
Silver (Ag)-Dissolved			98.1		%		80-120	05-JUN-18
Sodium (Na)-Dissolved			100.6		%		80-120	05-JUN-18
Strontium (Sr)-Dissolved			96.6		%		80-120	05-JUN-18
Sulfur (S)-Dissolved			105.0		%		80-120	05-JUN-18
Tellurium (Te)-Dissolved			98.5		%		80-120	05-JUN-18
Thallium (Tl)-Dissolved			95.0		%		80-120	05-JUN-18
Thorium (Th)-Dissolved			93.5		%		80-120	05-JUN-18
Tin (Sn)-Dissolved			97.7		%		80-120	05-JUN-18
Titanium (Ti)-Dissolved			97.0		%		80-120	05-JUN-18
Tungsten (W)-Dissolved			92.4		%		80-120	05-JUN-18
Uranium (U)-Dissolved			93.9		%		80-120	05-JUN-18
Vanadium (V)-Dissolved			97.1		%		80-120	05-JUN-18
Zinc (Zn)-Dissolved			86.2		%		80-120	05-JUN-18
Zirconium (Zr)-Dissolved			92.3		%		80-120	05-JUN-18
WG2789179-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	05-JUN-18
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 10 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4072837							
WG2789179-1	MB							
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-18
Boron (B)-Dissolved			<0.010		mg/L		0.01	05-JUN-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	05-JUN-18
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	05-JUN-18
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-18
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-18
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	05-JUN-18
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-18
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	05-JUN-18
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	05-JUN-18
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-18
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-18
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	05-JUN-18
Potassium (K)-Dissolved			<0.050		mg/L		0.05	05-JUN-18
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-18
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	05-JUN-18
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	05-JUN-18
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-18
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	05-JUN-18
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-18
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	05-JUN-18
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	05-JUN-18
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-18
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	05-JUN-18
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	05-JUN-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	05-JUN-18
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	05-JUN-18
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	05-JUN-18
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	05-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 11 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4063031							
WG2784176-7 DUP		L2102010-17						
Aluminum (Al)-Total		0.0284	0.0282		mg/L	0.7	20	30-MAY-18
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Arsenic (As)-Total		0.00020	0.00020		mg/L	3.7	20	30-MAY-18
Barium (Ba)-Total		0.0108	0.0103		mg/L	4.1	20	30-MAY-18
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	30-MAY-18
Boron (B)-Total		<0.010	<0.010	RPD-NA	mg/L	N/A	20	30-MAY-18
Cadmium (Cd)-Total		<0.0000050	<0.0000050	RPD-NA	mg/L	N/A	20	30-MAY-18
Calcium (Ca)-Total		8.16	8.06		mg/L	1.3	20	30-MAY-18
Cesium (Cs)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	30-MAY-18
Chromium (Cr)-Total		0.00022	0.00020		mg/L	8.7	20	30-MAY-18
Cobalt (Co)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Copper (Cu)-Total		0.00080	0.00077		mg/L	3.2	20	30-MAY-18
Iron (Fe)-Total		0.203	0.198		mg/L	2.5	20	30-MAY-18
Lead (Pb)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	30-MAY-18
Lithium (Li)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	30-MAY-18
Magnesium (Mg)-Total		0.966	0.944		mg/L	2.3	20	30-MAY-18
Manganese (Mn)-Total		0.0334	0.0326		mg/L	2.3	20	30-MAY-18
Molybdenum (Mo)-Total		0.000052	0.000051		mg/L	0.9	20	30-MAY-18
Nickel (Ni)-Total		0.00076	0.00071		mg/L	6.0	20	30-MAY-18
Phosphorus (P)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	30-MAY-18
Potassium (K)-Total		1.49	1.47		mg/L	1.4	20	30-MAY-18
Rubidium (Rb)-Total		0.00179	0.00178		mg/L	0.4	20	30-MAY-18
Selenium (Se)-Total		0.000088	0.000090		mg/L	1.6	20	30-MAY-18
Silicon (Si)-Total		3.56	3.57		mg/L	0.2	20	30-MAY-18
Silver (Ag)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	30-MAY-18
Sodium (Na)-Total		1.39	1.33		mg/L	4.7	20	30-MAY-18
Strontium (Sr)-Total		0.0220	0.0217		mg/L	1.2	20	30-MAY-18
Sulfur (S)-Total		1.26	1.23		mg/L	2.4	20	30-MAY-18
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	30-MAY-18
Thallium (Tl)-Total		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	30-MAY-18
Thorium (Th)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Titanium (Ti)-Total		0.00039	0.00040		mg/L	2.8	20	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 12 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4063031							
WG2784176-7	DUP	L2102010-17						
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	30-MAY-18
Uranium (U)-Total		0.000011	0.000011		mg/L	0.1	20	30-MAY-18
Vanadium (V)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	30-MAY-18
Zinc (Zn)-Total		0.0047	0.0038	J	mg/L	0.0009	0.006	30-MAY-18
Zirconium (Zr)-Total		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784176-6	LCS							
Aluminum (Al)-Total			101.2		%		80-120	30-MAY-18
Antimony (Sb)-Total			100.5		%		80-120	30-MAY-18
Arsenic (As)-Total			99.1		%		80-120	30-MAY-18
Barium (Ba)-Total			98.0		%		80-120	30-MAY-18
Beryllium (Be)-Total			96.5		%		80-120	30-MAY-18
Bismuth (Bi)-Total			99.0		%		80-120	30-MAY-18
Boron (B)-Total			89.8		%		80-120	30-MAY-18
Cadmium (Cd)-Total			99.96		%		80-120	30-MAY-18
Calcium (Ca)-Total			95.9		%		80-120	30-MAY-18
Cesium (Cs)-Total			97.2		%		80-120	30-MAY-18
Chromium (Cr)-Total			99.8		%		80-120	30-MAY-18
Cobalt (Co)-Total			101.3		%		80-120	30-MAY-18
Copper (Cu)-Total			99.5		%		80-120	30-MAY-18
Iron (Fe)-Total			104.5		%		80-120	30-MAY-18
Lead (Pb)-Total			99.2		%		80-120	30-MAY-18
Lithium (Li)-Total			95.0		%		80-120	30-MAY-18
Magnesium (Mg)-Total			103.2		%		80-120	30-MAY-18
Manganese (Mn)-Total			100.8		%		80-120	30-MAY-18
Molybdenum (Mo)-Total			96.2		%		80-120	30-MAY-18
Nickel (Ni)-Total			96.6		%		80-120	30-MAY-18
Phosphorus (P)-Total			106.5		%		80-120	30-MAY-18
Potassium (K)-Total			103.3		%		80-120	30-MAY-18
Rubidium (Rb)-Total			100.5		%		80-120	30-MAY-18
Selenium (Se)-Total			102.0		%		80-120	30-MAY-18
Silicon (Si)-Total			98.4		%		80-120	30-MAY-18
Silver (Ag)-Total			99.5		%		80-120	30-MAY-18
Sodium (Na)-Total			102.9		%		80-120	30-MAY-18
Strontium (Sr)-Total			95.3		%		80-120	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 13 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4063031							
WG2784176-6	LCS							
Sulfur (S)-Total			99.7		%		80-120	30-MAY-18
Tellurium (Te)-Total			97.3		%		80-120	30-MAY-18
Thallium (Tl)-Total			98.9		%		80-120	30-MAY-18
Thorium (Th)-Total			97.4		%		80-120	30-MAY-18
Tin (Sn)-Total			97.4		%		80-120	30-MAY-18
Titanium (Ti)-Total			95.5		%		80-120	30-MAY-18
Tungsten (W)-Total			98.0		%		80-120	30-MAY-18
Uranium (U)-Total			98.8		%		80-120	30-MAY-18
Vanadium (V)-Total			98.4		%		80-120	30-MAY-18
Zinc (Zn)-Total			94.8		%		80-120	30-MAY-18
Zirconium (Zr)-Total			95.2		%		80-120	30-MAY-18
WG2784176-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	30-MAY-18
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Arsenic (As)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Barium (Ba)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	30-MAY-18
Boron (B)-Total			<0.010		mg/L		0.01	30-MAY-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	30-MAY-18
Calcium (Ca)-Total			<0.050		mg/L		0.05	30-MAY-18
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	30-MAY-18
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Copper (Cu)-Total			<0.00050		mg/L		0.0005	30-MAY-18
Iron (Fe)-Total			<0.010		mg/L		0.01	30-MAY-18
Lead (Pb)-Total			<0.000050		mg/L		0.00005	30-MAY-18
Lithium (Li)-Total			<0.0010		mg/L		0.001	30-MAY-18
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	30-MAY-18
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	30-MAY-18
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	30-MAY-18
Phosphorus (P)-Total			<0.050		mg/L		0.05	30-MAY-18
Potassium (K)-Total			<0.050		mg/L		0.05	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 14 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4063031							
WG2784176-5	MB							
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	30-MAY-18
Selenium (Se)-Total			<0.000050		mg/L		0.00005	30-MAY-18
Silicon (Si)-Total			<0.10		mg/L		0.1	30-MAY-18
Silver (Ag)-Total			<0.000010		mg/L		0.00001	30-MAY-18
Sodium (Na)-Total			<0.050		mg/L		0.05	30-MAY-18
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	30-MAY-18
Sulfur (S)-Total			<0.50		mg/L		0.5	30-MAY-18
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	30-MAY-18
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	30-MAY-18
Thorium (Th)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Tin (Sn)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	30-MAY-18
Tungsten (W)-Total			<0.00010		mg/L		0.0001	30-MAY-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	30-MAY-18
Vanadium (V)-Total			<0.00050		mg/L		0.0005	30-MAY-18
Zinc (Zn)-Total			<0.0030		mg/L		0.003	30-MAY-18
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	30-MAY-18
Batch	R4064847							
WG2785406-2	LCS							
Aluminum (Al)-Total			97.6		%		80-120	02-JUN-18
Antimony (Sb)-Total			95.5		%		80-120	02-JUN-18
Arsenic (As)-Total			95.4		%		80-120	02-JUN-18
Barium (Ba)-Total			95.4		%		80-120	02-JUN-18
Beryllium (Be)-Total			92.4		%		80-120	02-JUN-18
Bismuth (Bi)-Total			95.1		%		80-120	02-JUN-18
Boron (B)-Total			85.7		%		80-120	02-JUN-18
Cadmium (Cd)-Total			94.1		%		80-120	02-JUN-18
Calcium (Ca)-Total			92.2		%		80-120	02-JUN-18
Cesium (Cs)-Total			93.6		%		80-120	02-JUN-18
Chromium (Cr)-Total			93.0		%		80-120	02-JUN-18
Cobalt (Co)-Total			93.8		%		80-120	02-JUN-18
Copper (Cu)-Total			93.2		%		80-120	02-JUN-18
Iron (Fe)-Total			97.3		%		80-120	02-JUN-18
Lead (Pb)-Total			94.7		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 15 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785406-2	LCS							
Lithium (Li)-Total			91.0		%		80-120	02-JUN-18
Magnesium (Mg)-Total			100.2		%		80-120	02-JUN-18
Manganese (Mn)-Total			93.8		%		80-120	02-JUN-18
Molybdenum (Mo)-Total			92.6		%		80-120	02-JUN-18
Nickel (Ni)-Total			93.1		%		80-120	02-JUN-18
Phosphorus (P)-Total			95.0		%		80-120	02-JUN-18
Potassium (K)-Total			95.8		%		80-120	02-JUN-18
Rubidium (Rb)-Total			94.8		%		80-120	02-JUN-18
Selenium (Se)-Total			90.4		%		80-120	02-JUN-18
Silicon (Si)-Total			100.5		%		80-120	02-JUN-18
Silver (Ag)-Total			92.7		%		80-120	02-JUN-18
Sodium (Na)-Total			98.4		%		80-120	02-JUN-18
Strontium (Sr)-Total			89.4		%		80-120	02-JUN-18
Sulfur (S)-Total			99.96		%		80-120	02-JUN-18
Tellurium (Te)-Total			93.6		%		80-120	02-JUN-18
Thallium (Tl)-Total			97.1		%		80-120	02-JUN-18
Thorium (Th)-Total			92.8		%		80-120	02-JUN-18
Tin (Sn)-Total			92.9		%		80-120	02-JUN-18
Titanium (Ti)-Total			93.4		%		80-120	02-JUN-18
Tungsten (W)-Total			94.9		%		80-120	02-JUN-18
Uranium (U)-Total			94.3		%		80-120	02-JUN-18
Vanadium (V)-Total			96.9		%		80-120	02-JUN-18
Zinc (Zn)-Total			86.4		%		80-120	02-JUN-18
Zirconium (Zr)-Total			84.7		%		80-120	02-JUN-18
WG2785406-1	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	02-JUN-18
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Total			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Total			<0.050		mg/L		0.05	02-JUN-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 16 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB		Water						
Batch	R4064847							
WG2785406-1	MB							
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Iron (Fe)-Total			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Total			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Total			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Total			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Selenium (Se)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Total			<0.10		mg/L		0.1	02-JUN-18
Silver (Ag)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Total			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Total			<0.50		mg/L		0.5	02-JUN-18
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Thorium (Th)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Total			<0.0030		mg/L		0.003	02-JUN-18
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	02-JUN-18

NH3-COL-TB

Water



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 17 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-COL-TB								
Water								
Batch	R4069331							
WG2787907-11	DUP	L2102010-9						
Ammonia, Total (as N)		0.042	0.077	J	mg/L	0.035	0.04	04-JUN-18
WG2787907-7	DUP	L2102010-1						
Ammonia, Total (as N)		<0.020	<0.020	RPD-NA	mg/L	N/A	20	04-JUN-18
WG2787907-10	LCS							
Ammonia, Total (as N)			96.7		%		85-115	04-JUN-18
WG2787907-6	LCS							
Ammonia, Total (as N)			97.0		%		85-115	04-JUN-18
WG2787907-5	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	04-JUN-18
WG2787907-9	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	04-JUN-18
WG2787907-12	MS	L2102010-10						
Ammonia, Total (as N)			95.5		%		75-125	04-JUN-18
WG2787907-8	MS	L2102010-2						
Ammonia, Total (as N)			93.9		%		75-125	04-JUN-18
NO2-IC-N-TB								
Water								
Batch	R4062864							
WG2784073-7	DUP	L2102010-4						
Nitrite (as N)		<0.010	<0.010	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784073-2	LCS							
Nitrite (as N)			98.8		%		90-110	30-MAY-18
WG2784073-6	LCS							
Nitrite (as N)			97.4		%		90-110	30-MAY-18
WG2784073-1	MB							
Nitrite (as N)			<0.010		mg/L		0.01	30-MAY-18
WG2784073-5	MB							
Nitrite (as N)			<0.010		mg/L		0.01	30-MAY-18
WG2784073-8	MS	L2102010-12						
Nitrite (as N)			95.1		%		75-125	30-MAY-18
NO3-IC-N-TB								
Water								
Batch	R4062864							
WG2784073-7	DUP	L2102010-4						
Nitrate (as N)		0.034	0.034		mg/L	1.7	20	30-MAY-18
WG2784073-2	LCS							
Nitrate (as N)			99.4		%		90-110	30-MAY-18
WG2784073-6	LCS							
Nitrate (as N)			96.3		%		90-110	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 18 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-IC-N-TB								
Batch R4062864								
WG2784073-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	30-MAY-18
WG2784073-5 MB								
Nitrate (as N)			<0.020		mg/L		0.02	30-MAY-18
WG2784073-8 MS		L2102010-12						
Nitrate (as N)			93.6		%		75-125	30-MAY-18
P-T-COL-TB								
Batch R4067190								
WG2785347-10 LCS								
Phosphorus (P)-Total			101.8		%		80-120	04-JUN-18
WG2785347-6 LCS								
Phosphorus (P)-Total			98.0		%		80-120	04-JUN-18
WG2785347-5 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	04-JUN-18
WG2785347-9 MB								
Phosphorus (P)-Total			<0.0030		mg/L		0.003	04-JUN-18
PH-TITR-TB								
Batch R4062791								
WG2784339-6 DUP		L2102010-3						
pH		6.84	6.90	J	pH	0.06	0.2	30-MAY-18
WG2784339-2 LCS								
pH			5.98		pH		5.9-6.1	30-MAY-18
WG2784339-5 LCS								
pH			5.97		pH		5.9-6.1	30-MAY-18
PO4-DO-COL-TB								
Batch R4062886								
WG2784233-7 DUP		L2102010-14						
Orthophosphate-Dissolved (as P)		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	30-MAY-18
WG2784233-2 LCS								
Orthophosphate-Dissolved (as P)			103.5		%		80-120	30-MAY-18
WG2784233-6 LCS								
Orthophosphate-Dissolved (as P)			103.5		%		80-120	30-MAY-18
WG2784233-1 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	30-MAY-18
WG2784233-5 MB								
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	30-MAY-18
WG2784233-8 MS		L2102010-15						
Orthophosphate-Dissolved (as P)			88.7		%		70-130	30-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 19 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SO4-IC-N-TB								
Water								
Batch	R4062864							
WG2784073-2	LCS							
Sulfate (SO4)			100.5		%		90-110	30-MAY-18
WG2784073-6	LCS							
Sulfate (SO4)			98.9		%		90-110	30-MAY-18
WG2784073-1	MB							
Sulfate (SO4)			<0.30		mg/L		0.3	30-MAY-18
WG2784073-5	MB							
Sulfate (SO4)			1.43	B	mg/L		0.3	30-MAY-18
Batch	R4065588							
WG2784073-7	DUP	L2102010-4						
Sulfate (SO4)		1.57	1.39		mg/L	12	20	02-JUN-18
WG2787256-2	LCS							
Sulfate (SO4)			102.9		%		90-110	02-JUN-18
WG2787256-1	MB							
Sulfate (SO4)			<0.30		mg/L		0.3	02-JUN-18
WG2784073-8	MS	L2102010-12						
Sulfate (SO4)			82.8		%		75-125	02-JUN-18
TDS-TB								
Water								
Batch	R4063408							
WG2784696-2	LCS							
Total Dissolved Solids			97.6		%		85-115	30-MAY-18
WG2784696-1	MB							
Total Dissolved Solids			<10		mg/L		10	30-MAY-18
Batch	R4064025							
WG2785374-2	LCS							
Total Dissolved Solids			97.4		%		85-115	31-MAY-18
WG2785374-1	MB							
Total Dissolved Solids			<10		mg/L		10	31-MAY-18
Batch	R4064162							
WG2785464-2	LCS							
Total Dissolved Solids			99.2		%		85-115	31-MAY-18
WG2785464-1	MB							
Total Dissolved Solids			<10		mg/L		10	31-MAY-18
Batch	R4064186							
WG2785786-2	LCS							
Total Dissolved Solids			95.9		%		85-115	31-MAY-18
WG2785786-1	MB							
Total Dissolved Solids			<10		mg/L		10	31-MAY-18



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 20 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TKN-COL-TB		Water						
Batch	R4064020							
WG2784642-12	DUP	L2102010-16						
Total Kjeldahl Nitrogen		0.45	0.53		mg/L	17	20	01-JUN-18
WG2784642-8	DUP	L2102010-7						
Total Kjeldahl Nitrogen		0.32	0.32		mg/L	1.4	20	01-JUN-18
WG2784642-10	LCS							
Total Kjeldahl Nitrogen			107.1		%		75-125	01-JUN-18
WG2784642-6	LCS							
Total Kjeldahl Nitrogen			107.3		%		75-125	01-JUN-18
WG2784642-5	MB							
Total Kjeldahl Nitrogen			<0.15		mg/L		0.15	01-JUN-18
WG2784642-9	MB							
Total Kjeldahl Nitrogen			<0.15		mg/L		0.15	01-JUN-18
WG2784642-11	MS	L2102010-17						
Total Kjeldahl Nitrogen			103.3		%		70-130	01-JUN-18
WG2784642-7	MS	L2102010-8						
Total Kjeldahl Nitrogen			120.0		%		70-130	01-JUN-18
TOC-TB		Water						
Batch	R4066427							
WG2786347-3	DUP	L2102010-1						
Total Organic Carbon		7.0	6.8		mg/L	2.0	20	01-JUN-18
WG2786347-2	LCS							
Total Organic Carbon			111.4		%		80-120	01-JUN-18
WG2786347-1	MB							
Total Organic Carbon			<1.0		mg/L		1	01-JUN-18
WG2786347-4	MS	L2102010-2						
Total Organic Carbon			105.4		%		70-130	01-JUN-18
TSS-L-TB		Water						
Batch	R4063790							
WG2785309-3	DUP	L2102010-7						
Total Suspended Solids		1.2	1.6	J	mg/L	0.4	2	31-MAY-18
WG2785309-2	LCS							
Total Suspended Solids			97.6		%		85-115	31-MAY-18
WG2785309-1	MB							
Total Suspended Solids			<1.0		mg/L		1	31-MAY-18
Batch	R4063816							
WG2785360-2	LCS							
Total Suspended Solids			97.3		%		85-115	31-MAY-18
WG2785360-1	MB							



Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 21 of 23

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TSS-L-TB	Water							
Batch	R4063816							
WG2785360-1	MB							
Total Suspended Solids			<1.0		mg/L		1	31-MAY-18

Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 22 of 23

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
B	Method Blank exceeds ALS DQO. Associated sample results which are < Limit of Reporting or > 5 times blank level are considered reliable.
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Quality Control Report

Workorder: L2102010

Report Date: 07-JUN-18

Page 23 of 23

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
Conductivity							
	1	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	2	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	3	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	5	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	6	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	7	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	8	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
pH							
	1	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	2	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	3	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	5	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	6	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	7	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR
	8	25-MAY-18 12:00	30-MAY-18 12:02	4	5	days	EHTR

Legend & Qualifier Definitions:

- EHTR-FM: Exceeded ALS recommended hold time prior to sample receipt. Field Measurement recommended.
EHTR: Exceeded ALS recommended hold time prior to sample receipt.
EHTL: Exceeded ALS recommended hold time prior to analysis. Sample was received less than 24 hours prior to expiry.
EHT: Exceeded ALS recommended hold time prior to analysis.
Rec. HT: ALS recommended hold time (see units).

Notes*:

Where actual sampling date is not provided to ALS, the date (& time) of receipt is used for calculation purposes.
Where actual sampling time is not provided to ALS, the earlier of 12 noon on the sampling date or the time (& date) of receipt is used for calculation purposes. Samples for L2102010 were received on 29-MAY-18 12:30.

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

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

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



Report To		Report Format / Distribution		Select Service Level Below - Please confirm all E&P TATs with your AM - surcharges will apply																		
Contact and company name below will appear on the final report		Select Report Format: <input checked="" type="checkbox"/> PDF <input checked="" type="checkbox"/> EXCEL <input type="checkbox"/> EDD (DIGITAL)		Regular [R] <input checked="" type="checkbox"/> Standard TAT if received by 3 pm - business days - no surcharges apply																		
Company:	Palmer Environmental Consulting Group Inc.	Quality Control (QC) Report with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Priority (Business days)	EMERGENCY																	
Contact:	Jake McQueen	<input type="checkbox"/> Compare Results to Criteria on Report - provide details below if box checked		4 day [P4] <input type="checkbox"/>	1 Business day [E1] <input type="checkbox"/>																	
Phone:	647-795-8153	Select Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		3 day [P3] <input type="checkbox"/>	Same Day, Weekend or Statutory holiday [E0] <input type="checkbox"/>																	
Company address below will appear on the final report		Email 1 jake@pecg.ca		Data and Time Required for all E&P TATs: dd-mmm-yy hh:mm																		
Street:	374 Wellington Street West, Suite 3	Email 2 ed@pecg.ca <u>ryan@pecg.ca</u>		For tests that can not be performed according to the service level selected, you will be contacted.																		
City/Province:	Toronto, ON	Email 3		Analysis Request																		
Postal Code:	M5V 1E3	Invoice Distribution		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below																		
Invoice To	Same as Report To <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO	Select Invoice Distribution: <input checked="" type="checkbox"/> EMAIL <input type="checkbox"/> MAIL <input type="checkbox"/> FAX		<table border="1"> <tr> <td></td><td>F</td><td>P</td><td>P</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table>			F	P	P													
	F	P	P																			
Copy of Invoice with Report <input type="checkbox"/> YES <input type="checkbox"/> NO		Email 1 jake@pecg.ca		Acidity, Alkalinity, Br. Cl, DOC, Conductivity, F, Hardness, Dissolved Metals & Mercury, Total Metals & Mercury, Total Nitrogen, NH3, NO2, NO3, Total Phosphorus, pH, PO4, SO4, TDS, TOC, Low Level TSS																		
Company:		Email 2		Number of Containers																		
Contact:																						
Project Information		Oil and Gas Required Fields (client use)																				
ALS Account # / Quote #:	Q62364	AFE/Cost Center:	PO#																			
Job #:	Ambershaw	Major/Minor Code:	Routing Code:																			
PO / AFE:		Requisitioner:																				
LSD:		Location:																				
ALS Lab Work Order # (lab use only)		ALS Contact: <u>Christina A.</u>	Sampler: <u>JMQ</u>																			
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)			Sample Type																
	<u>M2</u>	<u>27-May-18</u>	<u>12:00</u>			Surface Water	x	x	x	x	x											
	<u>M3</u>	<u>27-May-18</u>	<u>12:00</u>	Surface Water	x	x	x	x	x													11
	<u>BL1</u>	<u>27-May-18</u>	<u>12:00</u>	Surface Water	x	x	x	x	x													6
	<u>SL6</u>	<u>27-May-18</u>	<u>12:00</u>	Surface Water	x	x	x	x	x													6
	<u>SL5</u>	<u>27-May-18</u>	<u>12:00</u>	Surface Water	x	x	x	x	x													6
	BL1			Surface Water	x	x	x	x	x													6
				Surface Water	x	x	x	x	x													
				Surface Water	x	x	x	x	x													
				Surface Water	x	x	x	x	x													
				Surface Water	x	x	x	x	x													
				Surface Water	x	x	x	x	x													
Drinking Water (DW) Samples ¹ (client use)		Special Instructions / Specify Criteria to add on report by clicking on the drop-down list below (electronic COC only)		SAMPLE CONDITION AS RECEIVED (lab use only)																		
Are samples taken from a Regulated DW System? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				Frozen <input type="checkbox"/>		SIF Observations Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Ice Packs <input checked="" type="checkbox"/> Ice Cubes <input type="checkbox"/>		Custody seal intact Yes <input type="checkbox"/> No <input type="checkbox"/>		Cooling Initiated <input checked="" type="checkbox"/>										
Are samples for human drinking water use? <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO				INITIAL COOLER TEMPERATURES °C		FINAL COOLER TEMPERATURES °C																
				19.7																		
SHIPMENT RELEASE (client use)				INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)														
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:								
<u>Jake McQueen</u>	<u>28-May-18</u>	<u>9:00am</u>	<u>CS</u>	<u>05/29/18</u>	<u>12:30</u>																	

SD



PALMER ENVIRONMENTAL CONSULTING
GROUP INC. (Richmond Hill)
ATTN: Jake McQueen
374 Wellington Street West
Suite 3
Toronto ON M5V 1E3

Date Received: 30-MAY-18
Report Date: 11-JUN-18 12:20 (MT)
Version: FINAL

Client Phone: 647-795-8153

Certificate of Analysis

Lab Work Order #: L2103029
Project P.O. #: NOT SUBMITTED
Job Reference: AMBERSHAW
C of C Numbers:
Legal Site Desc:

<Original signed by>

Christine Paradis
Project Manager

[This report shall not be reproduced except in full without the written authority of the Laboratory.]

ADDRESS: 1081 Barton Street, Thunder Bay, ON P7B 5N3 Canada | Phone: +1 807 623 6463 | Fax: +1 807 623 7598
ALS CANADA LTD Part of the ALS Group An ALS Limited Company

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-1 M4							
Sampled By: JMC on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	46.4		3.0	uS/cm		30-MAY-18	R4062791
Hardness (as CaCO3)	21.3		0.50	mg/L		04-JUN-18	
pH	7.15		0.10	pH		30-MAY-18	R4062791
Total Suspended Solids	2.2		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	53		10	mg/L		31-MAY-18	R4064186
Anions and Nutrients							
Acidity (as CaCO3)	3.3		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	21.6		2.0	mg/L		30-MAY-18	R4062791
Ammonia, Total (as N)	0.021		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.12		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	0.63		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.63		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0141		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	0.82		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	11.8		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	13.3		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0444		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00026		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00954		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	7.57		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00025		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00074		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.090		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	0.740		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0185		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-1 M4							
Sampled By: JMC on 27-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	1.07		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00211		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000075		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	0.47		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	0.751		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0135		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	0.55		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00038		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0337		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00875		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	7.38		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00033		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00071		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.062		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-1 M4 Sampled By: JMC on 27-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.705		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00190		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	1.07		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00199		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000068		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	0.388		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	0.694		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0136		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0062		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-2 BEAK-1 Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	29.3		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	10.8		0.50	mg/L		04-JUN-18	
pH	7.42		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	30		10	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	2.0		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	10.0		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	1.16		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-2 BEAK-1							
Sampled By: JMC on 29-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.25		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.25		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0100		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.23		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	7.0		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	7.9		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0185		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00020		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00484		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	0.0000093		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	3.65		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	0.000012		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00046		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00058		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.082		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	0.605		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0114		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.531		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00202		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000098		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.80		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	1.22		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0106		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-2 BEAK-1							
Sampled By: JMC on 29-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0119		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00014		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00468		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	3.40		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000011		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00047		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.038		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.562		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00268		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.518		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00180		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000054		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.63		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	1.16		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0104		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-2 BEAK-1 Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0052		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-3 STORM-1 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	74.6		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	32.9		0.50	mg/L		04-JUN-18	
pH	7.77		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	53		13	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	33.7		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.47		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	0.18		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.18		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0050		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.89		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	5.0		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	5.1		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0049		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00025		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-3 STORM-1							
Sampled By: JMC on 28-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.00651		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	11.8		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00015		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00069		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.013		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	1.03		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.00272		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	0.000111		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.582		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00109		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000062		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.43		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	1.00		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0256		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	0.98		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0026		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-3 STORM-1 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00634		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	11.6		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.017		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.980		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00045		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	0.000104		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.591		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00107		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000057		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.31		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	0.928		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0261		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	0.81		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0036		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-4 SL4 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-4 SL4							
Sampled By: JMC on 28-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	72.9		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	32.6		0.50	mg/L		04-JUN-18	
pH	7.81		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	50		13	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	34.8		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	0.030		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.54		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	0.20		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.20		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0066		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.70		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	4.9		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	5.1		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0059		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00024		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00650		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	11.8		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00018		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00062		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.014		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	1.02		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.00326		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-4 SL4							
Sampled By: JMC on 28-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	0.000134		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.587		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00107		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000057		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.44		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	0.989		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0257		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	1.10		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00021		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00599		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	11.5		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00053		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-4 SL4 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.958		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00027		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	0.000103		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.582		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00101		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000056		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.32		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	0.928		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0246		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	0.81		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-5 SL3 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	73.7		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	32.5		0.50	mg/L		05-JUN-18	
pH	7.72		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	52		13	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	33.5		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.58		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-5 SL3							
Sampled By: JMC on 28-MAY-18 @ 12:00							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.25		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.25		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0050		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.58		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	5.2		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	5.3		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0065		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00026		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00683		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	12.0		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00015		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00065		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.020		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	1.01		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.00366		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	0.000111		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.611		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00113		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000081		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.43		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	1.04		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0251		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	0.84		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-5 SL3							
Sampled By: JMC on 28-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00033		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0022		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	0.00015		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00020		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00661		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	11.4		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00070	DTC	0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00058		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.017		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	0.966		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00032		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	0.000237	DTC	0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.626		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00110		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000062		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.30		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	0.978		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0251		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-5 SL3 Sampled By: JMC on 28-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.54		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-6 FB Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	<3.0		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	<0.50		0.50	mg/L		07-JUN-18	
pH	7.12		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	<1.0		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	<10		10	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	<2.0		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	<2.0		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	0.026		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	<0.15		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	<0.15		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	<0.30		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	<1.0		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	<1.0		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	<0.0030		0.0030	mg/L	06-JUN-18	06-JUN-18	R4075026
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Arsenic (As)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-6 FB							
Sampled By: JMC on 29-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	06-JUN-18	06-JUN-18	R4075026
Boron (B)-Total	<0.010		0.010	mg/L	06-JUN-18	06-JUN-18	R4075026
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	06-JUN-18	06-JUN-18	R4075026
Calcium (Ca)-Total	<0.050		0.050	mg/L	06-JUN-18	06-JUN-18	R4075026
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	06-JUN-18	06-JUN-18	R4075026
Chromium (Cr)-Total	0.00034	RRV	0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Copper (Cu)-Total	<0.00050		0.00050	mg/L	06-JUN-18	06-JUN-18	R4075026
Iron (Fe)-Total	<0.010		0.010	mg/L	06-JUN-18	06-JUN-18	R4075026
Lead (Pb)-Total	<0.000050		0.000050	mg/L	06-JUN-18	06-JUN-18	R4075026
Lithium (Li)-Total	<0.0010		0.0010	mg/L	06-JUN-18	06-JUN-18	R4075026
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	06-JUN-18	06-JUN-18	R4075026
Manganese (Mn)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Mercury (Hg)-Total	0.0000885		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	06-JUN-18	06-JUN-18	R4075026
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	06-JUN-18	06-JUN-18	R4075026
Phosphorus (P)-Total	<0.050		0.050	mg/L	06-JUN-18	06-JUN-18	R4075026
Potassium (K)-Total	<0.050		0.050	mg/L	06-JUN-18	06-JUN-18	R4075026
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	06-JUN-18	06-JUN-18	R4075026
Selenium (Se)-Total	<0.000050		0.000050	mg/L	06-JUN-18	06-JUN-18	R4075026
Silicon (Si)-Total	<0.10		0.10	mg/L	06-JUN-18	06-JUN-18	R4075026
Silver (Ag)-Total	<0.000010		0.000010	mg/L	06-JUN-18	06-JUN-18	R4075026
Sodium (Na)-Total	<0.050		0.050	mg/L	06-JUN-18	06-JUN-18	R4075026
Strontium (Sr)-Total	<0.00020		0.00020	mg/L	06-JUN-18	06-JUN-18	R4075026
Sulfur (S)-Total	<0.50		0.50	mg/L	06-JUN-18	06-JUN-18	R4075026
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	06-JUN-18	06-JUN-18	R4075026
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	06-JUN-18	06-JUN-18	R4075026
Thorium (Th)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Tin (Sn)-Total	0.00029	RRV	0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	06-JUN-18	06-JUN-18	R4075026
Tungsten (W)-Total	<0.00010		0.00010	mg/L	06-JUN-18	06-JUN-18	R4075026
Uranium (U)-Total	<0.000010		0.000010	mg/L	06-JUN-18	06-JUN-18	R4075026
Vanadium (V)-Total	<0.00050		0.00050	mg/L	06-JUN-18	06-JUN-18	R4075026
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	06-JUN-18	06-JUN-18	R4075026
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	06-JUN-18	06-JUN-18	R4075026
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	<0.0020		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-6 FB Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00016	RRV	0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	0.00027	RRV	0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0030	RRV	0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-7 BL2 Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-7 BL2							
Sampled By: JMC on 29-MAY-18 @ 12:00							
Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	29.6		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	10.5		0.50	mg/L		04-JUN-18	
pH	7.28		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	1.4		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	34		10	mg/L		01-JUN-18	R4064880
Anions and Nutrients							
Acidity (as CaCO3)	2.5		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	10.4		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	1.10		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	0.27		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.27		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0131		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	1.16		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	7.4		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	7.4		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0267		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00020		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.00487		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	0.000813		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	3.65		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	0.000014		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00023		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00066		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.101		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	0.000082		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	0.592		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0196		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-7 BL2							
Sampled By: JMC on 29-MAY-18 @ 12:00							
Matrix: Surface Water							
Total Metals							
Mercury (Hg)-Total	<0.000050		0.000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	0.528		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00201		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000065		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	1.85		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	1.24		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0108		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	0.97		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	0.00021		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00042		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	0.000012		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	0.0056		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0117		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	0.00015		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.00456		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	3.27		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	0.000013		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00016		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00050		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.036		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-7 BL2 Sampled By: JMC on 29-MAY-18 @ 12:00 Matrix: Surface Water							
Dissolved Metals							
Magnesium (Mg)-Dissolved	0.564		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.00282		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	0.527		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00182		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	1.66		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	1.14		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0102		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0014		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-8 MW5-5 Sampled By: JMC on 28-MAY-18 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	197		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	86.5		0.50	mg/L		04-JUN-18	
pH	7.54		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	8.5		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	115		13	mg/L		01-JUN-18	R4064954
Anions and Nutrients							
Acidity (as CaCO3)	6.6		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	92.5		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	<0.020		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.46		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	1.70		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-8 MW5-5							
Sampled By: JMC on 28-MAY-18 @ 00:01							
Matrix: Surface Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.39		0.15	mg/L	06-JUN-18	07-JUN-18	R4076300
Total Nitrogen	2.08		0.15	mg/L		08-JUN-18	
Orthophosphate-Dissolved (as P)	0.0057		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	<0.0030		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	2.71		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	3.6		1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	1.9		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0558		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00011		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Barium (Ba)-Total	0.0233		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	0.0000106		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	32.3		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00035		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00164		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.066		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	2.84		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0176		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	0.000226		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	2.57		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00099		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000079		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	7.60		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	2.76		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0604		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	0.96		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-8 MW5-5							
Sampled By: JMC on 28-MAY-18 @ 00:01							
Matrix: Surface Water							
Total Metals							
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00218		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	0.00079		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	0.000550		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	0.00053		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0033		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.0219		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	0.0000052		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	30.4		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00018		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00124		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	2.59		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.0163		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	0.000222		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	2.53		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00089		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000059		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	6.68		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	2.53		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0568		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-8 MW5-5 Sampled By: JMC on 28-MAY-18 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Sulfur (S)-Dissolved	0.58		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	0.00075		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	0.000537		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029
L2103029-9 MW5D Sampled By: JMC on 28-MAY-18 @ 00:01 Matrix: Surface Water							
Physical Tests							
Conductivity (EC)	278		3.0	uS/cm		31-MAY-18	R4063799
Hardness (as CaCO3)	128		0.50	mg/L		04-JUN-18	
pH	8.05		0.10	pH		31-MAY-18	R4063799
Total Suspended Solids	7.8		1.0	mg/L		31-MAY-18	R4063816
Total Dissolved Solids	154		20	mg/L		01-JUN-18	R4064954
Anions and Nutrients							
Acidity (as CaCO3)	2.2		2.0	mg/L		31-MAY-18	R4063799
Alkalinity, Total (as CaCO3)	159		2.0	mg/L		01-JUN-18	R4064707
Ammonia, Total (as N)	0.024		0.020	mg/L		31-MAY-18	R4063365
Bromide (Br)	<0.10		0.10	mg/L		31-MAY-18	R4063805
Chloride (Cl)	0.51		0.10	mg/L		31-MAY-18	R4063805
Fluoride (F)	<0.020		0.020	mg/L		31-MAY-18	R4063805
Nitrate (as N)	0.675		0.020	mg/L		31-MAY-18	R4063805
Nitrite (as N)	<0.010		0.010	mg/L		31-MAY-18	R4063805
Total Kjeldahl Nitrogen	<0.15		0.15	mg/L	01-JUN-18	05-JUN-18	R4069949
Total Nitrogen	0.67		0.15	mg/L		05-JUN-18	
Orthophosphate-Dissolved (as P)	<0.0030		0.0030	mg/L		31-MAY-18	R4063750
Phosphorus (P)-Total	0.0057		0.0030	mg/L	31-MAY-18	04-JUN-18	R4067190
Sulfate (SO4)	3.08		0.30	mg/L		31-MAY-18	R4063805
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD					31-MAY-18	R4063084
Dissolved Organic Carbon	4.8	DTC	1.0	mg/L	31-MAY-18	31-MAY-18	R4063771
Total Organic Carbon	1.9		1.0	mg/L		31-MAY-18	R4063755
Total Metals							
Aluminum (Al)-Total	0.0753		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Arsenic (As)-Total	0.00014		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-9 MW5D							
Sampled By: JMC on 28-MAY-18 @ 00:01							
Matrix: Surface Water							
Total Metals							
Barium (Ba)-Total	0.0387		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Boron (B)-Total	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cadmium (Cd)-Total	0.0000130		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Calcium (Ca)-Total	47.4		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Chromium (Cr)-Total	0.00076		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Cobalt (Co)-Total	0.00023		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Copper (Cu)-Total	0.00509		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Iron (Fe)-Total	0.114		0.010	mg/L	31-MAY-18	02-JUN-18	R4064847
Lead (Pb)-Total	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Lithium (Li)-Total	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4064847
Magnesium (Mg)-Total	4.18		0.0050	mg/L	31-MAY-18	02-JUN-18	R4064847
Manganese (Mn)-Total	0.0426		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		31-MAY-18	R4063559
Molybdenum (Mo)-Total	0.000717		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Phosphorus (P)-Total	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Potassium (K)-Total	3.75		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Rubidium (Rb)-Total	0.00210		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Selenium (Se)-Total	0.000186		0.000050	mg/L	31-MAY-18	02-JUN-18	R4064847
Silicon (Si)-Total	6.73		0.10	mg/L	31-MAY-18	02-JUN-18	R4064847
Silver (Ag)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Sodium (Na)-Total	2.48		0.050	mg/L	31-MAY-18	02-JUN-18	R4064847
Strontium (Sr)-Total	0.0971		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Sulfur (S)-Total	1.16		0.50	mg/L	31-MAY-18	02-JUN-18	R4064847
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4064847
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Thorium (Th)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Tin (Sn)-Total	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Titanium (Ti)-Total	0.00379		0.00030	mg/L	31-MAY-18	02-JUN-18	R4064847
Tungsten (W)-Total	0.00112		0.00010	mg/L	31-MAY-18	02-JUN-18	R4064847
Uranium (U)-Total	0.00142		0.000010	mg/L	31-MAY-18	02-JUN-18	R4064847
Vanadium (V)-Total	0.00097		0.00050	mg/L	31-MAY-18	02-JUN-18	R4064847
Zinc (Zn)-Total	0.0172		0.0030	mg/L	31-MAY-18	02-JUN-18	R4064847
Zirconium (Zr)-Total	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4064847
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					31-MAY-18	R4063147
Dissolved Metals Filtration Location	FIELD					31-MAY-18	R4063265
Aluminum (Al)-Dissolved	0.0051		0.0020	mg/L	31-MAY-18	02-JUN-18	R4067029

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

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2103029-9 MW5D Sampled By: JMC on 28-MAY-18 @ 00:01 Matrix: Surface Water							
Dissolved Metals							
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Barium (Ba)-Dissolved	0.0372		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Boron (B)-Dissolved	<0.010		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Calcium (Ca)-Dissolved	45.1		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Chromium (Cr)-Dissolved	0.00077		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Cobalt (Co)-Dissolved	0.00017		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Copper (Cu)-Dissolved	0.00104		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Iron (Fe)-Dissolved	0.013		0.010	mg/L	31-MAY-18	02-JUN-18	R4067029
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Magnesium (Mg)-Dissolved	3.84		0.0050	mg/L	31-MAY-18	02-JUN-18	R4067029
Manganese (Mn)-Dissolved	0.0397		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	31-MAY-18	31-MAY-18	R4063565
Molybdenum (Mo)-Dissolved	0.000668		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Potassium (K)-Dissolved	3.67		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Rubidium (Rb)-Dissolved	0.00175		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Selenium (Se)-Dissolved	0.000234		0.000050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silicon (Si)-Dissolved	6.08		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Silver (Ag)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Sodium (Na)-Dissolved	2.31		0.050	mg/L	31-MAY-18	02-JUN-18	R4067029
Strontium (Sr)-Dissolved	0.0958		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Sulfur (S)-Dissolved	0.87		0.50	mg/L	31-MAY-18	02-JUN-18	R4067029
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	31-MAY-18	02-JUN-18	R4067029
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	31-MAY-18	02-JUN-18	R4067029
Tungsten (W)-Dissolved	0.00126		0.00010	mg/L	31-MAY-18	02-JUN-18	R4067029
Uranium (U)-Dissolved	0.00148		0.000010	mg/L	31-MAY-18	02-JUN-18	R4067029
Vanadium (V)-Dissolved	0.00061		0.00050	mg/L	31-MAY-18	02-JUN-18	R4067029
Zinc (Zn)-Dissolved	0.0097		0.0010	mg/L	31-MAY-18	02-JUN-18	R4067029
Zirconium (Zr)-Dissolved	<0.000060		0.000060	mg/L	31-MAY-18	02-JUN-18	R4067029

* 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)
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2103029-1, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Aluminum (Al)-Total	MS-B	L2103029-6
Matrix Spike	Calcium (Ca)-Total	MS-B	L2103029-1, -2, -3, -4, -5, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2103029-1, -2, -3, -4, -5, -7, -8, -9
Matrix Spike	Manganese (Mn)-Total	MS-B	L2103029-6
Matrix Spike	Strontium (Sr)-Total	MS-B	L2103029-1, -2, -3, -4, -5, -7, -8, -9

Sample Parameter Qualifier key listed:

Qualifier	Description
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RRV	Reported Result Verified By Repeat Analysis

Test Method References:

ALS Test Code	Matrix	Test Description	Method Reference**
ACY-TITR-TB	Water	Acidity	APHA 2310 B modified This analysis is carried out using procedures adapted from APHA Method 2310 "Acidity". Acidity is determined by potentiometric titration to a specified endpoint.
ALK-TITR-TB	Water	Alkalinity	APHA 2320B modified This analysis is carried out using procedures adapted from APHA Method 2320 "Alkalinity". Total alkalinity is determined by potentiometric titration to a pH 4.5 endpoint. Bicarbonate, carbonate and hydroxide alkalinity are calculated from phenolphthalein alkalinity and total alkalinity values.
BR-IC-N-TB	Water	Bromide in Water by IC	EPA 300.1 (mod) Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
CL-L-IC-N-TB	Water	Chloride in Water by IC (Low Level)	EPA 300.1 (mod) Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
DOC-TB	Water	Dissolved Organic Carbon	APHA 5310 B modified Water samples are determined by filtering the sample through a 0.45 micron membrane filter prior to analysis. Analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample
EC-TITR-TB	Water	Conductivity	APHA 2510 B This analysis is carried out using procedures adapted from APHA Method 2510 "Conductivity". Conductivity is determined using a conductivity electrode.
F-IC-N-TB	Water	Fluoride in Water by IC	EPA 300.1 (mod) Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.
HARDNESS-CALC-TB	Water	Hardness (as CaCO ₃)	CALCULATION
HG-D-CVAF-TB	Water	Dissolved Mercury in Water by CVAFS	EPA 1631E (mod) Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.
HG-T-CVAF-TB	Water	Total Mercury in Water by CVAFS	EPA 1631E (mod) Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAFS.
MET-D-CCMS-TB	Water	Dissolved Metals in Water by CRC	APHA 3030B/6020B (mod) Water samples are filtered (0.45 um), preserved with nitric acid, and analyzed by CRC ICPMS. Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.
MET-T-CCMS-TB	Water	Total Metals in Water by CRC	EPA 200.2/6020B (mod) Water samples are digested with nitric and hydrochloric acids, and analyzed by CRC ICPMS.

Reference Information

Method Limitation (re: Sulfur): Sulfide and volatile sulfur species may not be recovered by this method.

N-T-CALC-TB	Water	Total Nitrogen (Calculation)	APHA 4500 N-Calculated
Total Nitrogen is a calculated parameter. Total Nitrogen = Total Kjeldahl Nitrogen +[Nitrate and Nitrite (as N)]			
NH3-COL-TB	Water	Ammonia by Discrete Analyzer	APHA 4500-NH3 G. (modified)
Ammonia in aqueous matrices is analyzed using discrete analyzer with colourimetric detection.			
NO2-IC-N-TB	Water	Nitrite in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
NO3-IC-N-TB	Water	Nitrate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
P-T-COL-TB	Water	Total Phosphorus by Discrete Analyzer	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
PH-TITR-TB	Water	pH	APHA 4500-H
This analysis is carried out using procedures adapted from APHA Method 4500-H "pH Value". The pH is determined in the laboratory using a pH electrode			
PO4-DO-COL-TB	Water	Dissolved Orthophosphate	APHA 4500-P B, F, G (modified)
Phosphorus in aqueous matrices is analyzed using discrete Analyzer with colourimetric detection.			
SO4-IC-N-TB	Water	Sulfate in Water by IC	EPA 300.1 (mod)
Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.			
TDS-TB	Water	Total Dissolved Solids	APHA 2540 C (modified)
Aqueous matrices are analyzed using gravimetry and evaporation			
TKN-COL-TB	Water	Total Kjeldahl Nitrogen	APHA 4500-Norg (modified)
Total Kjeldahl Nitrogen in aqueous matrices is analyzed using a discrete analyzer with colourimetric detection.			
TOC-TB	Water	Total Organic Carbon (TOC)	APHA 5310 B modified
Water samples are analyzed by converting all carbonaceous material to carbon dioxide (CO ₂) by catalytic combustion at 850°C. The CO ₂ generated is measured by an infrared detector and is directly proportional to concentration of carbonaceous material in the sample			
TSS-L-TB	Water	Low Level Total Suspended Solids	APHA 2540 D (modified)
Aqueous matrices are analyzed using gravimetry.			

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

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

Laboratory Definition Code	Laboratory Location
TB	ALS ENVIRONMENTAL - THUNDER BAY, ONTARIO, CANADA

Chain of Custody Numbers:

GLOSSARY OF REPORT TERMS

Surrogates are compounds that are similar in behaviour to target analyte(s), but that do not normally occur in environmental samples. For applicable tests, surrogates are added to samples prior to analysis as a check on recovery. In reports that display the D.L. column, laboratory objectives for surrogates are listed there.

mg/kg - milligrams per kilogram based on dry weight of sample

mg/kg wwt - milligrams per kilogram based on wet weight of sample

mg/kg lwt - milligrams per kilogram based on lipid weight of sample

mg/L - unit of concentration based on volume, parts per million.

< - Less than.

D.L. - The reporting limit.

N/A - Result not available. Refer to qualifier code and definition for explanation.

Test results reported relate only to the samples as received by the laboratory.

UNLESS OTHERWISE STATED, ALL SAMPLES WERE RECEIVED IN ACCEPTABLE CONDITION.

Analytical results in unsigned test reports with the DRAFT watermark are subject to change, pending final QC review.



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 1 of 21

Client: PALMER ENVIRONMENTAL CONSULTING GROUP INC. (Richmond Hill)
 374 Wellington Street West Suite 3
 Toronto ON M5V 1E3

Contact: Jake McQueen

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ACY-TITR-TB								
	Water							
Batch	R4063799							
WG2784972-11	LCS							
Acidity (as CaCO3)			101.6		%		85-115	31-MAY-18
WG2784972-17	LCS							
Acidity (as CaCO3)			106.0		%		85-115	31-MAY-18
WG2784972-2	LCS							
Acidity (as CaCO3)			100.0		%		85-115	31-MAY-18
WG2784972-5	LCS							
Acidity (as CaCO3)			100.4		%		85-115	31-MAY-18
WG2784972-1	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	31-MAY-18
WG2784972-10	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	31-MAY-18
WG2784972-16	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	31-MAY-18
WG2784972-4	MB							
Acidity (as CaCO3)			<2.0		mg/L		2	31-MAY-18
ALK-TITR-TB								
	Water							
Batch	R4062791							
WG2784339-12	DUP	L2103029-1						
Alkalinity, Total (as CaCO3)		21.6	22.8		mg/L	5.4	20	30-MAY-18
WG2784339-11	LCS							
Alkalinity, Total (as CaCO3)			97.5		%		85-115	30-MAY-18
WG2784339-10	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	30-MAY-18
Batch	R4064707							
WG2786301-18	DUP	L2103029-9						
Alkalinity, Total (as CaCO3)		159	169		mg/L	6.0	20	01-JUN-18
WG2786301-14	LCS							
Alkalinity, Total (as CaCO3)			98.1		%		85-115	01-JUN-18
WG2786301-17	LCS							
Alkalinity, Total (as CaCO3)			101.2		%		85-115	01-JUN-18
WG2786301-13	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	01-JUN-18
WG2786301-16	MB							
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	01-JUN-18

BR-IC-N-TB **Water**



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 2 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BR-IC-N-TB								
Water								
Batch	R4063805							
WG2785729-6	LCS							
Bromide (Br)			91.6		%		85-115	31-MAY-18
WG2785729-5	MB							
Bromide (Br)			<0.10		mg/L		0.1	31-MAY-18
CL-L-IC-N-TB								
Water								
Batch	R4063805							
WG2785729-6	LCS							
Chloride (Cl)			101.2		%		90-110	31-MAY-18
WG2785729-5	MB							
Chloride (Cl)			<0.10		mg/L		0.1	31-MAY-18
DOC-TB								
Water								
Batch	R4063771							
WG2785200-2	LCS							
Dissolved Organic Carbon			113.1		%		80-120	31-MAY-18
WG2785200-1	MB							
Dissolved Organic Carbon			<1.0		mg/L		1	31-MAY-18
EC-TITR-TB								
Water								
Batch	R4062791							
WG2784339-12	DUP	L2103029-1						
Conductivity (EC)		46.4	46.3		uS/cm	0.2	10	30-MAY-18
WG2784339-11	LCS							
Conductivity (EC)			99.1		%		90-110	30-MAY-18
WG2784339-10	MB							
Conductivity (EC)			<3.0		uS/cm		3	30-MAY-18
Batch	R4063799							
WG2784972-11	LCS							
Conductivity (EC)			100.0		%		90-110	31-MAY-18
WG2784972-2	LCS							
Conductivity (EC)			100.2		%		90-110	31-MAY-18
WG2784972-5	LCS							
Conductivity (EC)			100.0		%		90-110	31-MAY-18
WG2784972-1	MB							
Conductivity (EC)			<3.0		uS/cm		3	31-MAY-18
WG2784972-10	MB							
Conductivity (EC)			<3.0		uS/cm		3	31-MAY-18
WG2784972-4	MB							
Conductivity (EC)			<3.0		uS/cm		3	31-MAY-18
F-IC-N-TB								
Water								



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 3 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-TB								
Batch R4063805								
WG2785729-6	LCS							
Fluoride (F)			104.7		%		90-110	31-MAY-18
WG2785729-5	MB							
Fluoride (F)			<0.020		mg/L		0.02	31-MAY-18
HG-D-CVAF-TB								
Batch R4063565								
WG2785458-2	LCS							
Mercury (Hg)-Dissolved			97.4		%		80-120	31-MAY-18
WG2785458-1	MB							
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	31-MAY-18
HG-T-CVAF-TB								
Batch R4063559								
WG2785466-2	LCS							
Mercury (Hg)-Total			98.5		%		80-120	31-MAY-18
WG2785466-6	LCS							
Mercury (Hg)-Total			97.7		%		80-120	31-MAY-18
WG2785466-1	MB							
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	31-MAY-18
WG2785466-5	MB							
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	31-MAY-18
MET-D-CCMS-TB								
Batch R4067029								
WG2785333-3	DUP	L2103029-3						
Aluminum (Al)-Dissolved		0.0026	<0.0020	RPD-NA	mg/L	N/A	20	02-JUN-18
Antimony (Sb)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Arsenic (As)-Dissolved		0.00020	0.00020		mg/L	0.3	20	02-JUN-18
Barium (Ba)-Dissolved		0.00634	0.00618		mg/L	2.4	20	02-JUN-18
Beryllium (Be)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Bismuth (Bi)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	02-JUN-18
Boron (B)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	02-JUN-18
Cadmium (Cd)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	02-JUN-18
Calcium (Ca)-Dissolved		11.6	11.7		mg/L	0.9	20	02-JUN-18
Cesium (Cs)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	02-JUN-18
Chromium (Cr)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Cobalt (Co)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Copper (Cu)-Dissolved		0.00058	0.00054		mg/L	6.4	20	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 4 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-3	DUP	L2103029-3						
Iron (Fe)-Dissolved		0.017	0.015		mg/L	16	20	02-JUN-18
Lead (Pb)-Dissolved		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	02-JUN-18
Lithium (Li)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	02-JUN-18
Magnesium (Mg)-Dissolved		0.980	0.956		mg/L	2.5	20	02-JUN-18
Manganese (Mn)-Dissolved		0.00045	0.00043		mg/L	4.7	20	02-JUN-18
Molybdenum (Mo)-Dissolved		0.000104	0.000148	J	mg/L	0.000044	0.0001	02-JUN-18
Nickel (Ni)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	02-JUN-18
Phosphorus (P)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	02-JUN-18
Potassium (K)-Dissolved		0.591	0.585		mg/L	1.2	20	02-JUN-18
Rubidium (Rb)-Dissolved		0.00107	0.00104		mg/L	2.6	20	02-JUN-18
Selenium (Se)-Dissolved		0.000057	0.000058		mg/L	1.3	20	02-JUN-18
Silicon (Si)-Dissolved		1.31	1.31		mg/L	0.3	20	02-JUN-18
Silver (Ag)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	02-JUN-18
Sodium (Na)-Dissolved		0.928	0.913		mg/L	1.7	20	02-JUN-18
Strontium (Sr)-Dissolved		0.0261	0.0252		mg/L	3.6	20	02-JUN-18
Sulfur (S)-Dissolved		0.81	0.80		mg/L	0.2	20	02-JUN-18
Tellurium (Te)-Dissolved		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	02-JUN-18
Thallium (Tl)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	02-JUN-18
Thorium (Th)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Tin (Sn)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Titanium (Ti)-Dissolved		<0.00030	<0.00030	RPD-NA	mg/L	N/A	20	02-JUN-18
Tungsten (W)-Dissolved		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	02-JUN-18
Uranium (U)-Dissolved		<0.000010	<0.000010	RPD-NA	mg/L	N/A	20	02-JUN-18
Vanadium (V)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	02-JUN-18
Zinc (Zn)-Dissolved		0.0036	0.0032		mg/L	13	20	02-JUN-18
Zirconium (Zr)-Dissolved		<0.000060	<0.000060	RPD-NA	mg/L	N/A	20	02-JUN-18
WG2785333-2	LCS							
Aluminum (Al)-Dissolved			111.6		%		80-120	02-JUN-18
Antimony (Sb)-Dissolved			112.6		%		80-120	02-JUN-18
Arsenic (As)-Dissolved			107.0		%		80-120	02-JUN-18
Barium (Ba)-Dissolved			107.8		%		80-120	02-JUN-18
Beryllium (Be)-Dissolved			108.2		%		80-120	02-JUN-18
Bismuth (Bi)-Dissolved			108.8		%		80-120	02-JUN-18
Boron (B)-Dissolved			98.0		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 5 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-2	LCS							
Cadmium (Cd)-Dissolved			108.3		%		80-120	02-JUN-18
Calcium (Ca)-Dissolved			109.9		%		80-120	02-JUN-18
Cesium (Cs)-Dissolved			112.1		%		80-120	02-JUN-18
Chromium (Cr)-Dissolved			109.4		%		80-120	02-JUN-18
Cobalt (Co)-Dissolved			109.0		%		80-120	02-JUN-18
Copper (Cu)-Dissolved			109.1		%		80-120	02-JUN-18
Iron (Fe)-Dissolved			113.8		%		80-120	02-JUN-18
Lead (Pb)-Dissolved			112.5		%		80-120	02-JUN-18
Lithium (Li)-Dissolved			106.2		%		80-120	02-JUN-18
Magnesium (Mg)-Dissolved			114.0		%		80-120	02-JUN-18
Manganese (Mn)-Dissolved			110.3		%		80-120	02-JUN-18
Molybdenum (Mo)-Dissolved			111.4		%		80-120	02-JUN-18
Nickel (Ni)-Dissolved			105.3		%		80-120	02-JUN-18
Phosphorus (P)-Dissolved			110.9		%		80-120	02-JUN-18
Potassium (K)-Dissolved			113.3		%		80-120	02-JUN-18
Rubidium (Rb)-Dissolved			112.4		%		80-120	02-JUN-18
Selenium (Se)-Dissolved			110.9		%		80-120	02-JUN-18
Silicon (Si)-Dissolved			108.1		%		80-120	02-JUN-18
Silver (Ag)-Dissolved			114.8		%		80-120	02-JUN-18
Sodium (Na)-Dissolved			111.3		%		80-120	02-JUN-18
Strontium (Sr)-Dissolved			110.1		%		80-120	02-JUN-18
Sulfur (S)-Dissolved			115.5		%		80-120	02-JUN-18
Tellurium (Te)-Dissolved			109.0		%		80-120	02-JUN-18
Thallium (Tl)-Dissolved			111.8		%		80-120	02-JUN-18
Thorium (Th)-Dissolved			113.2		%		80-120	02-JUN-18
Tin (Sn)-Dissolved			108.8		%		80-120	02-JUN-18
Titanium (Ti)-Dissolved			108.0		%		80-120	02-JUN-18
Tungsten (W)-Dissolved			113.8		%		80-120	02-JUN-18
Uranium (U)-Dissolved			112.0		%		80-120	02-JUN-18
Vanadium (V)-Dissolved			108.6		%		80-120	02-JUN-18
Zinc (Zn)-Dissolved			105.4		%		80-120	02-JUN-18
Zirconium (Zr)-Dissolved			107.5		%		80-120	02-JUN-18
WG2785333-6	LCS							
Aluminum (Al)-Dissolved			95.6		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 6 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-6	LCS							
Antimony (Sb)-Dissolved			96.1		%		80-120	02-JUN-18
Arsenic (As)-Dissolved			94.2		%		80-120	02-JUN-18
Barium (Ba)-Dissolved			97.2		%		80-120	02-JUN-18
Beryllium (Be)-Dissolved			95.2		%		80-120	02-JUN-18
Bismuth (Bi)-Dissolved			98.0		%		80-120	02-JUN-18
Boron (B)-Dissolved			84.8		%		80-120	02-JUN-18
Cadmium (Cd)-Dissolved			97.5		%		80-120	02-JUN-18
Calcium (Ca)-Dissolved			97.6		%		80-120	02-JUN-18
Cesium (Cs)-Dissolved			96.1		%		80-120	02-JUN-18
Chromium (Cr)-Dissolved			96.2		%		80-120	02-JUN-18
Cobalt (Co)-Dissolved			95.3		%		80-120	02-JUN-18
Copper (Cu)-Dissolved			94.1		%		80-120	02-JUN-18
Iron (Fe)-Dissolved			98.1		%		80-120	02-JUN-18
Lead (Pb)-Dissolved			100.2		%		80-120	02-JUN-18
Lithium (Li)-Dissolved			95.2		%		80-120	02-JUN-18
Magnesium (Mg)-Dissolved			95.8		%		80-120	02-JUN-18
Manganese (Mn)-Dissolved			96.6		%		80-120	02-JUN-18
Molybdenum (Mo)-Dissolved			101.4		%		80-120	02-JUN-18
Nickel (Ni)-Dissolved			91.3		%		80-120	02-JUN-18
Phosphorus (P)-Dissolved			101.9		%		80-120	02-JUN-18
Potassium (K)-Dissolved			98.9		%		80-120	02-JUN-18
Rubidium (Rb)-Dissolved			97.1		%		80-120	02-JUN-18
Selenium (Se)-Dissolved			94.7		%		80-120	02-JUN-18
Silicon (Si)-Dissolved			95.2		%		80-120	02-JUN-18
Silver (Ag)-Dissolved			98.0		%		80-120	02-JUN-18
Sodium (Na)-Dissolved			101.6		%		80-120	02-JUN-18
Strontium (Sr)-Dissolved			96.5		%		80-120	02-JUN-18
Sulfur (S)-Dissolved			84.0		%		80-120	02-JUN-18
Tellurium (Te)-Dissolved			102.4		%		80-120	02-JUN-18
Thallium (Tl)-Dissolved			100.3		%		80-120	02-JUN-18
Thorium (Th)-Dissolved			100.8		%		80-120	02-JUN-18
Tin (Sn)-Dissolved			95.9		%		80-120	02-JUN-18
Titanium (Ti)-Dissolved			98.2		%		80-120	02-JUN-18
Tungsten (W)-Dissolved			101.2		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 7 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-6	LCS							
Uranium (U)-Dissolved			99.1		%		80-120	02-JUN-18
Vanadium (V)-Dissolved			95.8		%		80-120	02-JUN-18
Zinc (Zn)-Dissolved			90.3		%		80-120	02-JUN-18
Zirconium (Zr)-Dissolved			95.8		%		80-120	02-JUN-18
WG2785333-1	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	02-JUN-18
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 8 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-1	MB							
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	02-JUN-18
WG2785333-5	MB							
Aluminum (Al)-Dissolved			<0.0020		mg/L		0.002	02-JUN-18
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Dissolved			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 9 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-5	MB							
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Silver (Ag)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	02-JUN-18
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	02-JUN-18
Zirconium (Zr)-Dissolved			<0.000060		mg/L		0.00006	02-JUN-18
WG2785333-4	MS	L2103029-4						
Aluminum (Al)-Dissolved			98.2		%		70-130	02-JUN-18
Antimony (Sb)-Dissolved			103.6		%		70-130	02-JUN-18
Arsenic (As)-Dissolved			99.2		%		70-130	02-JUN-18
Barium (Ba)-Dissolved			98.3		%		70-130	02-JUN-18
Beryllium (Be)-Dissolved			100.6		%		70-130	02-JUN-18
Bismuth (Bi)-Dissolved			100.7		%		70-130	02-JUN-18
Boron (B)-Dissolved			96.4		%		70-130	02-JUN-18
Cadmium (Cd)-Dissolved			100.5		%		70-130	02-JUN-18
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	02-JUN-18
Cesium (Cs)-Dissolved			103.5		%		70-130	02-JUN-18
Chromium (Cr)-Dissolved			100.2		%		70-130	02-JUN-18
Cobalt (Co)-Dissolved			99.6		%		70-130	02-JUN-18
Copper (Cu)-Dissolved			100.8		%		70-130	02-JUN-18
Iron (Fe)-Dissolved			100.3		%		70-130	02-JUN-18
Lead (Pb)-Dissolved			106.0		%		70-130	02-JUN-18
Lithium (Li)-Dissolved			98.3		%		70-130	02-JUN-18
Magnesium (Mg)-Dissolved			106.4		%		70-130	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 10 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-TB								
	Water							
Batch	R4067029							
WG2785333-4	MS	L2103029-4						
Manganese (Mn)-Dissolved			100.4		%		70-130	02-JUN-18
Molybdenum (Mo)-Dissolved			98.0		%		70-130	02-JUN-18
Nickel (Ni)-Dissolved			97.4		%		70-130	02-JUN-18
Phosphorus (P)-Dissolved			101.2		%		70-130	02-JUN-18
Potassium (K)-Dissolved			101.3		%		70-130	02-JUN-18
Rubidium (Rb)-Dissolved			97.7		%		70-130	02-JUN-18
Selenium (Se)-Dissolved			99.7		%		70-130	02-JUN-18
Silicon (Si)-Dissolved			93.2		%		70-130	02-JUN-18
Silver (Ag)-Dissolved			104.4		%		70-130	02-JUN-18
Sodium (Na)-Dissolved			97.0		%		70-130	02-JUN-18
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	02-JUN-18
Sulfur (S)-Dissolved			104.3		%		70-130	02-JUN-18
Tellurium (Te)-Dissolved			104.8		%		70-130	02-JUN-18
Thallium (Tl)-Dissolved			105.0		%		70-130	02-JUN-18
Thorium (Th)-Dissolved			110.0		%		70-130	02-JUN-18
Tin (Sn)-Dissolved			97.4		%		70-130	02-JUN-18
Titanium (Ti)-Dissolved			101.3		%		70-130	02-JUN-18
Tungsten (W)-Dissolved			105.6		%		70-130	02-JUN-18
Uranium (U)-Dissolved			105.6		%		70-130	02-JUN-18
Vanadium (V)-Dissolved			100.5		%		70-130	02-JUN-18
Zinc (Zn)-Dissolved			93.6		%		70-130	02-JUN-18
Zirconium (Zr)-Dissolved			103.3		%		70-130	02-JUN-18
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785100-6	LCS							
Aluminum (Al)-Total			99.4		%		80-120	02-JUN-18
Antimony (Sb)-Total			98.7		%		80-120	02-JUN-18
Arsenic (As)-Total			97.8		%		80-120	02-JUN-18
Barium (Ba)-Total			101.1		%		80-120	02-JUN-18
Beryllium (Be)-Total			98.1		%		80-120	02-JUN-18
Bismuth (Bi)-Total			99.4		%		80-120	02-JUN-18
Boron (B)-Total			90.5		%		80-120	02-JUN-18
Cadmium (Cd)-Total			98.0		%		80-120	02-JUN-18
Calcium (Ca)-Total			98.0		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 11 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785100-6	LCS							
Cesium (Cs)-Total			97.6		%		80-120	02-JUN-18
Chromium (Cr)-Total			96.4		%		80-120	02-JUN-18
Cobalt (Co)-Total			97.8		%		80-120	02-JUN-18
Copper (Cu)-Total			97.4		%		80-120	02-JUN-18
Iron (Fe)-Total			99.9		%		80-120	02-JUN-18
Lead (Pb)-Total			98.2		%		80-120	02-JUN-18
Lithium (Li)-Total			95.3		%		80-120	02-JUN-18
Magnesium (Mg)-Total			102.6		%		80-120	02-JUN-18
Manganese (Mn)-Total			98.2		%		80-120	02-JUN-18
Molybdenum (Mo)-Total			97.0		%		80-120	02-JUN-18
Nickel (Ni)-Total			95.7		%		80-120	02-JUN-18
Phosphorus (P)-Total			103.2		%		80-120	02-JUN-18
Potassium (K)-Total			99.4		%		80-120	02-JUN-18
Rubidium (Rb)-Total			102.8		%		80-120	02-JUN-18
Selenium (Se)-Total			95.0		%		80-120	02-JUN-18
Silicon (Si)-Total			98.4		%		80-120	02-JUN-18
Silver (Ag)-Total			96.9		%		80-120	02-JUN-18
Sodium (Na)-Total			101.4		%		80-120	02-JUN-18
Strontium (Sr)-Total			94.8		%		80-120	02-JUN-18
Sulfur (S)-Total			95.5		%		80-120	02-JUN-18
Tellurium (Te)-Total			95.6		%		80-120	02-JUN-18
Thallium (Tl)-Total			99.4		%		80-120	02-JUN-18
Thorium (Th)-Total			97.0		%		80-120	02-JUN-18
Tin (Sn)-Total			97.6		%		80-120	02-JUN-18
Titanium (Ti)-Total			93.6		%		80-120	02-JUN-18
Tungsten (W)-Total			98.6		%		80-120	02-JUN-18
Uranium (U)-Total			97.4		%		80-120	02-JUN-18
Vanadium (V)-Total			99.5		%		80-120	02-JUN-18
Zinc (Zn)-Total			88.2		%		80-120	02-JUN-18
Zirconium (Zr)-Total			91.0		%		80-120	02-JUN-18
WG2785406-2	LCS							
Aluminum (Al)-Total			97.6		%		80-120	02-JUN-18
Antimony (Sb)-Total			95.5		%		80-120	02-JUN-18
Arsenic (As)-Total			95.4		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 12 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785406-2	LCS							
Barium (Ba)-Total			95.4		%		80-120	02-JUN-18
Beryllium (Be)-Total			92.4		%		80-120	02-JUN-18
Bismuth (Bi)-Total			95.1		%		80-120	02-JUN-18
Boron (B)-Total			85.7		%		80-120	02-JUN-18
Cadmium (Cd)-Total			94.1		%		80-120	02-JUN-18
Calcium (Ca)-Total			92.2		%		80-120	02-JUN-18
Cesium (Cs)-Total			93.6		%		80-120	02-JUN-18
Chromium (Cr)-Total			93.0		%		80-120	02-JUN-18
Cobalt (Co)-Total			93.8		%		80-120	02-JUN-18
Copper (Cu)-Total			93.2		%		80-120	02-JUN-18
Iron (Fe)-Total			97.3		%		80-120	02-JUN-18
Lead (Pb)-Total			94.7		%		80-120	02-JUN-18
Lithium (Li)-Total			91.0		%		80-120	02-JUN-18
Magnesium (Mg)-Total			100.2		%		80-120	02-JUN-18
Manganese (Mn)-Total			93.8		%		80-120	02-JUN-18
Molybdenum (Mo)-Total			92.6		%		80-120	02-JUN-18
Nickel (Ni)-Total			93.1		%		80-120	02-JUN-18
Phosphorus (P)-Total			95.0		%		80-120	02-JUN-18
Potassium (K)-Total			95.8		%		80-120	02-JUN-18
Rubidium (Rb)-Total			94.8		%		80-120	02-JUN-18
Selenium (Se)-Total			90.4		%		80-120	02-JUN-18
Silicon (Si)-Total			100.5		%		80-120	02-JUN-18
Silver (Ag)-Total			92.7		%		80-120	02-JUN-18
Sodium (Na)-Total			98.4		%		80-120	02-JUN-18
Strontium (Sr)-Total			89.4		%		80-120	02-JUN-18
Sulfur (S)-Total			99.96		%		80-120	02-JUN-18
Tellurium (Te)-Total			93.6		%		80-120	02-JUN-18
Thallium (Tl)-Total			97.1		%		80-120	02-JUN-18
Thorium (Th)-Total			92.8		%		80-120	02-JUN-18
Tin (Sn)-Total			92.9		%		80-120	02-JUN-18
Titanium (Ti)-Total			93.4		%		80-120	02-JUN-18
Tungsten (W)-Total			94.9		%		80-120	02-JUN-18
Uranium (U)-Total			94.3		%		80-120	02-JUN-18
Vanadium (V)-Total			96.9		%		80-120	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 13 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785406-2	LCS							
Zinc (Zn)-Total			86.4		%		80-120	02-JUN-18
Zirconium (Zr)-Total			84.7		%		80-120	02-JUN-18
WG2785100-5	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	02-JUN-18
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Total			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Total			<0.050		mg/L		0.05	02-JUN-18
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Iron (Fe)-Total			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Total			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Total			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Total			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Selenium (Se)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Total			<0.10		mg/L		0.1	02-JUN-18
Silver (Ag)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Total			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Total			<0.50		mg/L		0.5	02-JUN-18
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 14 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4064847							
WG2785100-5	MB							
Thorium (Th)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Total			<0.0030		mg/L		0.003	02-JUN-18
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	02-JUN-18
WG2785406-1	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	02-JUN-18
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Arsenic (As)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Barium (Ba)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Boron (B)-Total			<0.010		mg/L		0.01	02-JUN-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	02-JUN-18
Calcium (Ca)-Total			<0.050		mg/L		0.05	02-JUN-18
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Copper (Cu)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Iron (Fe)-Total			<0.010		mg/L		0.01	02-JUN-18
Lead (Pb)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Lithium (Li)-Total			<0.0010		mg/L		0.001	02-JUN-18
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	02-JUN-18
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Phosphorus (P)-Total			<0.050		mg/L		0.05	02-JUN-18
Potassium (K)-Total			<0.050		mg/L		0.05	02-JUN-18
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Selenium (Se)-Total			<0.000050		mg/L		0.00005	02-JUN-18
Silicon (Si)-Total			<0.10		mg/L		0.1	02-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 15 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB		Water						
Batch	R4064847							
WG2785406-1	MB							
Silver (Ag)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Sodium (Na)-Total			<0.050		mg/L		0.05	02-JUN-18
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Sulfur (S)-Total			<0.50		mg/L		0.5	02-JUN-18
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	02-JUN-18
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Thorium (Th)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Tin (Sn)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	02-JUN-18
Tungsten (W)-Total			<0.00010		mg/L		0.0001	02-JUN-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	02-JUN-18
Vanadium (V)-Total			<0.00050		mg/L		0.0005	02-JUN-18
Zinc (Zn)-Total			<0.0030		mg/L		0.003	02-JUN-18
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	02-JUN-18
Batch	R4075026							
WG2789863-2	LCS							
Aluminum (Al)-Total			102.0		%		80-120	06-JUN-18
Antimony (Sb)-Total			105.2		%		80-120	06-JUN-18
Arsenic (As)-Total			100.2		%		80-120	06-JUN-18
Barium (Ba)-Total			101.8		%		80-120	06-JUN-18
Beryllium (Be)-Total			99.3		%		80-120	06-JUN-18
Bismuth (Bi)-Total			104.8		%		80-120	06-JUN-18
Boron (B)-Total			98.2		%		80-120	06-JUN-18
Cadmium (Cd)-Total			99.3		%		80-120	06-JUN-18
Calcium (Ca)-Total			101.9		%		80-120	06-JUN-18
Cesium (Cs)-Total			101.6		%		80-120	06-JUN-18
Chromium (Cr)-Total			99.6		%		80-120	06-JUN-18
Cobalt (Co)-Total			100.9		%		80-120	06-JUN-18
Copper (Cu)-Total			98.6		%		80-120	06-JUN-18
Iron (Fe)-Total			105.9		%		80-120	06-JUN-18
Lead (Pb)-Total			102.9		%		80-120	06-JUN-18
Lithium (Li)-Total			99.9		%		80-120	06-JUN-18
Magnesium (Mg)-Total			105.7		%		80-120	06-JUN-18
Manganese (Mn)-Total			100.1		%		80-120	06-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 16 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB								
	Water							
Batch	R4075026							
WG2789863-2	LCS							
Molybdenum (Mo)-Total			101.8		%		80-120	06-JUN-18
Nickel (Ni)-Total			98.7		%		80-120	06-JUN-18
Phosphorus (P)-Total			102.0		%		80-120	06-JUN-18
Potassium (K)-Total			100.3		%		80-120	06-JUN-18
Rubidium (Rb)-Total			103.2		%		80-120	06-JUN-18
Selenium (Se)-Total			101.6		%		80-120	06-JUN-18
Silicon (Si)-Total			102.4		%		80-120	06-JUN-18
Silver (Ag)-Total			102.1		%		80-120	06-JUN-18
Sodium (Na)-Total			99.1		%		80-120	06-JUN-18
Strontium (Sr)-Total			102.1		%		80-120	06-JUN-18
Sulfur (S)-Total			105.4		%		80-120	06-JUN-18
Tellurium (Te)-Total			108.3		%		80-120	06-JUN-18
Thallium (Tl)-Total			105.4		%		80-120	06-JUN-18
Thorium (Th)-Total			102.9		%		80-120	06-JUN-18
Tin (Sn)-Total			99.9		%		80-120	06-JUN-18
Titanium (Ti)-Total			95.4		%		80-120	06-JUN-18
Tungsten (W)-Total			100.2		%		80-120	06-JUN-18
Uranium (U)-Total			103.2		%		80-120	06-JUN-18
Vanadium (V)-Total			100.8		%		80-120	06-JUN-18
Zinc (Zn)-Total			93.4		%		80-120	06-JUN-18
Zirconium (Zr)-Total			100.5		%		80-120	06-JUN-18
WG2789863-1	MB							
Aluminum (Al)-Total			<0.0030		mg/L		0.003	06-JUN-18
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Arsenic (As)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Barium (Ba)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	06-JUN-18
Boron (B)-Total			<0.010		mg/L		0.01	06-JUN-18
Cadmium (Cd)-Total			<0.0000050		mg/L		0.000005	06-JUN-18
Calcium (Ca)-Total			<0.050		mg/L		0.05	06-JUN-18
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	06-JUN-18
Chromium (Cr)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	06-JUN-18



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 17 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-TB		Water						
Batch	R4075026							
WG2789863-1	MB							
Copper (Cu)-Total			<0.00050		mg/L		0.0005	06-JUN-18
Iron (Fe)-Total			<0.010		mg/L		0.01	06-JUN-18
Lead (Pb)-Total			<0.000050		mg/L		0.00005	06-JUN-18
Lithium (Li)-Total			<0.0010		mg/L		0.001	06-JUN-18
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	06-JUN-18
Manganese (Mn)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	06-JUN-18
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	06-JUN-18
Phosphorus (P)-Total			<0.050		mg/L		0.05	06-JUN-18
Potassium (K)-Total			<0.050		mg/L		0.05	06-JUN-18
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	06-JUN-18
Selenium (Se)-Total			<0.000050		mg/L		0.00005	06-JUN-18
Silicon (Si)-Total			<0.10		mg/L		0.1	06-JUN-18
Silver (Ag)-Total			<0.000010		mg/L		0.00001	06-JUN-18
Sodium (Na)-Total			<0.050		mg/L		0.05	06-JUN-18
Strontium (Sr)-Total			<0.00020		mg/L		0.0002	06-JUN-18
Sulfur (S)-Total			<0.50		mg/L		0.5	06-JUN-18
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	06-JUN-18
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	06-JUN-18
Thorium (Th)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Tin (Sn)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	06-JUN-18
Tungsten (W)-Total			<0.00010		mg/L		0.0001	06-JUN-18
Uranium (U)-Total			<0.000010		mg/L		0.00001	06-JUN-18
Vanadium (V)-Total			<0.00050		mg/L		0.0005	06-JUN-18
Zinc (Zn)-Total			<0.0030		mg/L		0.003	06-JUN-18
Zirconium (Zr)-Total			<0.000060		mg/L		0.00006	06-JUN-18
NH3-COL-TB		Water						
Batch	R4063365							
WG2785252-10	LCS							
Ammonia, Total (as N)			98.4		%		85-115	31-MAY-18
WG2785252-9	MB							
Ammonia, Total (as N)			<0.020		mg/L		0.02	31-MAY-18
NO2-IC-N-TB		Water						



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 19 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PO4-DO-COL-TB								
	Water							
Batch	R4063750							
WG2785613-1	MB							
Orthophosphate-Dissolved (as P)			<0.0030		mg/L		0.003	31-MAY-18
WG2785613-4	MS	L2103029-5						
Orthophosphate-Dissolved (as P)			101.2		%		70-130	31-MAY-18
SO4-IC-N-TB								
	Water							
Batch	R4063805							
WG2785729-6	LCS							
Sulfate (SO4)			101.7		%		90-110	31-MAY-18
WG2785729-5	MB							
Sulfate (SO4)			<0.30		mg/L		0.3	31-MAY-18
TDS-TB								
	Water							
Batch	R4064186							
WG2785786-2	LCS							
Total Dissolved Solids			95.9		%		85-115	31-MAY-18
WG2785786-1	MB							
Total Dissolved Solids			<10		mg/L		10	31-MAY-18
Batch	R4064880							
WG2786337-2	LCS							
Total Dissolved Solids			96.7		%		85-115	01-JUN-18
WG2786337-1	MB							
Total Dissolved Solids			<10		mg/L		10	01-JUN-18
Batch	R4064954							
WG2786541-3	DUP	L2103029-9						
Total Dissolved Solids		154	157		mg/L	1.9	20	01-JUN-18
WG2786541-2	LCS							
Total Dissolved Solids			93.7		%		85-115	01-JUN-18
WG2786541-1	MB							
Total Dissolved Solids			<10		mg/L		10	01-JUN-18
TKN-COL-TB								
	Water							
Batch	R4069949							
WG2785708-6	LCS							
Total Kjeldahl Nitrogen			103.5		%		75-125	05-JUN-18
WG2785708-5	MB							
Total Kjeldahl Nitrogen			<0.15		mg/L		0.15	05-JUN-18
Batch	R4076300							
WG2789293-2	LCS							
Total Kjeldahl Nitrogen			110.1		%		75-125	07-JUN-18
WG2789293-1	MB							



Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 20 of 21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TKN-COL-TB	Water							
Batch	R4076300							
WG2789293-1 MB								
Total Kjeldahl Nitrogen			<0.15		mg/L		0.15	07-JUN-18
TOC-TB	Water							
Batch	R4063755							
WG2785196-2 LCS								
Total Organic Carbon			111.5		%		80-120	31-MAY-18
WG2785196-1 MB								
Total Organic Carbon			<1.0		mg/L		1	31-MAY-18
TSS-L-TB	Water							
Batch	R4063816							
WG2785360-3 DUP		L2103029-1						
Total Suspended Solids		2.2	2.3		mg/L	4.5	20	31-MAY-18
WG2785360-2 LCS								
Total Suspended Solids			97.3		%		85-115	31-MAY-18
WG2785360-1 MB								
Total Suspended Solids			<1.0		mg/L		1	31-MAY-18

Quality Control Report

Workorder: L2103029

Report Date: 11-JUN-18

Page 21 of 21

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

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

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

Appendix 2

Water Quality Results Comparison to PWQO Guidelines

Table 1 - PWQO Guidelines

Page1 of 1

Analyte	PWQO ²
Physical Tests	
pH (unitless)	6.5-8
Nutrients	
Ammonia, Total (as N)	0.02
Metals	
Aluminum (Al)-Total	ph 4.5-5.5: 0.015; ph 5.5-6.5: not exceed 10% above natural background conditions, pH 6.5-9: 0.075
Antimony (Sb)-Total	0.02
Arsenic (As)-Total	0.005
Beryllium (Be)-Total	Hardness <75: 0.011, Hardness >75: 1.1
Boron (B)-Total	0.2
Cadmium (Cd)-Total	Hardness 0-100: 0.0001, Hardness >100: 0.0005
Chromium (Cr)-Total	CrVI: 0.001, CrIII: 0.0089
Cobalt (Co)-Total	0.0009
Copper (Cu)-Total	Hardness 0-20: 0.001, Hardness >20: 0.005
Iron (Fe)-Total	0.3
Lead (Pb)-Total	Alkalinity <30: 0.001, Alkalinity 30-80: 0.03, Alkalinity >80: 0.005
Mercury (Hg)-Total	0.0002
Molybdenum (Mo)-Total	0.04
Nickel (Ni)-Total	0.025
Phosphorus (P)-Total	0.02 during ice free period, however can range from 0.01-0.03 depending on natural P levels of lakes
Selenium (Se)-Total	0.1
Silver (Ag)-Total	0.0001
Thallium (Tl)-Total	0.0003
Tungsten (W)-Total	0.03
Uranium (U)-Total	0.005
Vanadium (V)-Total	0.006
Zinc (Zn)-Total	0.02
Zirconium (Zr)-Total	0.004

NOTES:

1. Units are mg/L unless otherwise stated
2. Ontario Provincial Water Quality Objectives (PWQO) for the protection of Freshwater Aquatic Life
3. Indicates that values exceed the limit of PWQO

Parameters	TC1	TC1	TC1	TC1	TC2	TC2	TC2	TC2	TC2	BGL1	BGL1	BGL1	BGL1	BGL2	BGL2	BGL2	BGL2	BGL3	BGL3
Date	1-Jun-17	14-Jun-17	21-Oct-17	26-May-18	1-Jun-17	13-Jun-17	20-Oct-17	25-May-18	1-Jun-17	14-Jun-17	21-Oct-17	27-May-18	1-Jun-17	11-Jun-17	20-Oct-17	25-May-18	31-May-17	11-Aug-17	12-Sep-17
Time (hh:mm)	16:30	8:16	17:50	16:15	21:20	10:08	14:50			14:30	14:20	9:00	15:49	10:45	12:33	13:40			
In-Situ																			
Temp	-	20.03	11.17	22.65	-	22.11	11.34	17.95	-	24.18	11.3	20.87	10.94	22.97	11.27	20.2	15.34	23.2	
EC (uS/cm)	-	29	26	26	-	22	22	24	-	18	21	21	23	23	23	23	23	55	47
Dissolved Oxygen (%)	-	83.4	99.4	101.7	-	88.8	100	108	-	100	97.8	98.5	101.7	94.58	94.4	111	96.2	96.6	
Dissolved Oxygen (mg/L)	-	7.57	10.93	8.71	-	7.73	11.35	10.19	-	8.36	10.64	8.62	11.14	8.09	10.34	10.07	9.64	8.28	
pH	-	7.34	7.25	7.8	-	7.39	7.95	7.54	-	7.44	7.62	7.41	6.65	6.55	7.03	7.2	6.98	6.64	
ORP	-	141.5	207.3	88.8	-	168.2	186.9	131.9	-	168.2	161.7	115.8	168	215.5	212.1	148.8	95.4	244.5	
Depth (m)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Physical Tests																			
Conductivity (EC)	26.1	29.4	30.4	26.0	23.5	22.7	22	23.3	20.5	17.6	19.2	23.4	24.6	23.3	23.4	23.9	46.1	47.3	
Hardness (as CaCO3)	7.26	8.49	8.99	7.67	8.49	8.48	9.18	8.65	5.25	5.13	5.86	6.03	8.95	8.55	9.39	8.86	18.8	20.4	
pH	7.12	6.75	6.7	6.76	6.99	6.92	6.84	6.94	7.07	6.25	6.18	6.16	7.21	7.27	6.83	6.84	7.40	7.22	
Total Suspended Solids	5.7	1	3.2	1.2	1.1	1	1.4	1.0	1	1	7.2	1.0	1	1	1	1	16.7	1.6	
Total Dissolved Solids	24	34	31	23	29	25	25	21	26	31	31	28	22	30	23	17	39	46	
Anions and Nutrients																			
Acidity (as CaCO3)	3.2	2.8	2.2	2.1	3.6	2.4	2.1	2.1	3.2	3.1	3.5	3.4	2.9	2.2	2.3	2.3	2.9	2.6	
Alkalinity, Total (as CaCO3)	5.5	7.7	8	5.9	8.1	8.9	7.9	8.3	3.2	3.9	2.6	3.2	7.3	10.2	8.2	7.6	20.8	23.8	
Ammonia, Total (as N)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.05	0.02	0.044	0.02	0.02	0.02	0.02	0.02	0.02	0.034
Bromide (Br)	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	
Chloride (Cl)	2.38	2.81	3.11	2.37	3.30	2.28	2.7	0.43	1.81	1.33	1.55	2.74	0.32	0.32	0.3	0.35	0.16	0.15	
Fluoride (F)	0.027	0.022	0.02	0.021	0.034	0.026	0.023	0.028	0.035	0.028	0.023	0.028	0.035	0.025	0.022	0.028	0.028	0.024	
Nitrate (as N)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.034	0.02	0.024	0.040	0.02	0.02	
Nitrite (as N)	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	
Total Kjeldahl Nitrogen	0.44	0.25	0.36	0.29	0.25	0.25	0.22	0.20	0.25	0.35	0.35	0.59	0.25	0.27	0.17	0.42	0.28	0.44	
Total Nitrogen	0.44	0.25	0.36	0.29	0.25	0.25	0.22	0.23	0.25	0.35	0.35	0.62	0.25	0.27	0.2	0.46	0.28	0.44	
Orthophosphate-Dissolved	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
Phosphorus (P)-Total	0.0098	0.0082	0.0091	0.0092	0.0095	0.0041	0.0047	0.0065	0.0071	0.0058	0.015	0.0255	0.0036	0.0034	0.0041	0.0067	0.0101	0.0108	
Sulfate (SO4)	1.10	1.84	2.07	1.12	1.70	2.33	2.48	1.80	0.97	1.37	1.63	1.57	1.81	2.29	2.55	1.83	2.37	2.58	
Organic / Inorganic Carbon																			
Dissolved Organic Carbon	9.4	9.2	9.7	10.9	6.0	6.1	6.2	6.3	10.7	12.1	12	12.7	6.1	6.3	5.8	7.0	7.1	9.6	
Total Organic Carbon	9.4	9.6	9.5	9.1	5.7	5.9	6.1	6.4	10.4	12.7	13.2	13.1	6.1	6.5	5.9	7.3	7.4	9.6	
Total Metals																			
Aluminum (Al)-Total	0.0619	0.0412	0.0737	0.0498	0.0391	0.0252	0.044	0.0465	0.149	0.127	0.172	0.151	0.0403	0.0333	0.0396	0.0529	0.0164	0.0121	
Antimony (Sb)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Arsenic (As)-Total	0.00025	0.00033	0.00034	0.00025	0.00022	0.00026	0.00022	0.00019	0.0028	0.00034	0.00033	0.00031	0.00021	0.00023	0.00023	0.00019	0.00018	0.00024	
Barium (Ba)-Total	0.00396	0.00442	0.00498	0.00360	0.00405	0.00385	0.00449	0.00424	0.00481	0.0034	0.00552	0.00503	0.00439	0.00467	0.00431	0.0107	0.0107	0.0102	
Beryllium (Be)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	
Boron (B)-Total	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	
Cadmium (Cd)-Total	0.000149	0.00012	0.000701	0.000068	0.000005	0.000056	0.0000282	0.0000087	0.000121	0.000615	0.000016	0.000175	0.0000185	0.000328	0.000245	0.00001	0.000106	0.000237	
Calcium (Ca)-Total	2.03	2.42	2.46	2.28	2.49	2.52	2.6	2.62	1.32	1.4	1.54	1.65	2.77	2.55	2.65	2.61	6.46	7.02	
Cesium (Cs)-Total	0.00001	0.000011	0.00001	0.000010	0.000018	0.000018	0.000019	0.000015	0.00014	0.000019	0.000017	0.000019	0.000014	0.000017	0.000017	0.000016	0.00001	0.000012	
Chromium (Cr)-Total	0.00024	0.00023	0.00028	0.00042	0.00018	0.00018	0.00018	0.00018	0.00033	0.00033	0.00036	0.00032	0.00032	0.00034	0.00034	0.00027	0.00017	0.00019	
Cobalt (Co)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Copper (Cu)-Total	0.0005	0.00053	0.00058	0.00050	0.0005	0.00051	0.00050	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	
Iron (Fe)-Total	0.300	0.334	0.584	0.358	0.087	0.089	0.155	0.128	0.300	0.174	0.351	0.235	0.078	0.049	0.093	0.132	0.207	0.363	
Lead (Pb)-Total	0.000126	0.000154	0.000296	0.000134	0.00005	0.00005	0.000069	0.000050	0.000109	0.000135	0.000158	0.000105	0.00005	0.000145	0.0000523	0.000050	0.000062	0.000088	
Lithium (Li)-Total	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	
Magnesium (Mg)-Total	0.496	0.638	0.644	0.592	0.627	0.623	0.653	0.627	0.404	0.444	0.483	0.475	0.571	0.618	0.656	0.618	0.759	0.888	
Manganese (Mn)-Total	0.00624	0.0153	0.0108	0.0080	0.00472	0.0088	0.00978	0.00677	0.0104	0.0081	0.0113	0.0171	0.00493	0.00222	0.00532	0.000711	0.00227	0.0246	
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	
Molybdenum (Mo)-Total	0.0005	0.00064	0.00005	0.00005	0.00062	0.00079	0.00075	0.00059	0.0005	0.00051	0.00005	0.00005	0.00005	0.000077	0.000072	0.000111	0.000079	0.000054	
Nickel (Ni)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	
Phosphorus (P)-Total	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	
Potassium (K)-Total	0.297	0.348	0.428	0.359	0.429	0.405	0.431	0.445	0.342	0.386	0.374	0.453	0.418	0.419	0.465	0.465	1.21	0.989	
Rubidium (Rb)-Total	0.00094	0.00128	0.00133	0.00109	0.00124	0.00142	0.0014	0.00125	0.00115	0.00119	0.00126	0.00151	0.00122	0.00131	0.00139	0.00128	0.00152	0.00167	
Selenium (Se)-Total	0.000059	0.000092	0.000055	0.000097	0.00005	0.000087	0.00005	0.000064	0.000083	0.000127	0.000088	0.000064	0.000095	0.000079	0.000097	0.000098	0.000085	0.000064	
Silicon (Si)-Total	1.72	1.61	1.91	1.67	1.58	1.38	1.43	1.58	1.46										

Parameters	BGL3	BGL3	BGL5	BGL5	BGL5	BGL5	BGL5	BEND1	BEND1	BEND2	BEND3	BEND2	BEND3	BEND4	BEND5	STORM1	STORM1	STORM1	
Date	20-Oct-17	25-May-18	31-May-17	11-Aug-17	20-Oct-17	25-May-18	1-Jun-17	25-May-18	11-Aug-17	20-Oct-17	11-Jun-17	11-Aug-17	1-Jun-17	11-Aug-17	20-Oct-17	2-Jun-17	14-Aug-17	28-May-18	
Time (hh:mm)	14:45		15:15	10:30	12:01		9:01		11:40	13:25	9:22	11:56	9:41	12:03	13:25	9:05	11:30	11:30	
In-Situ																			
Temp	8.69	22.53	13.13	22.23	10.7	14.3	12.42	16.67	21.8	10.81	8.26	10.24	6.18	7.34	8.98	11.78	21.84	16.62	
EC (uS/cm)	47	38	22	23	23	23	-	-	23	-	-	-	-	-	-	-	-	-	73
Dissolved Oxygen (%)	99	106.6	100.2	90.4	93.7	105.1	100	107	-	96	99.2	-	84.3	-	69.8	104.8	-	-	114
Dissolved Oxygen (mg/L)	11.55	9.21	10.54	7.83	10.39	10.78	-	10.42	7.97	10.68	-	6.25	-	3.21	7.77	-	9.28	11.2	
pH	7.12	7.38	6.45	7.43	7.56	6.98	-	7.04	-	-	-	-	-	-	-	-	-	-	7.74
ORP	182	156.4	180	146.1	194	155.2	-	146.1	-	-	-	-	-	-	-	-	-	-	169.7
Depth (m)	-	-	-	-	-	-	3	0.01	2	1	8	10	17	17	14	2	2	-	-
Physical Tests																			
Conductivity (EC)	46.1	37.6	23.6	23.1	23.2	23.3	24.2	22.6	23.0	22.4	24.1	24.0	25.1	24.5	22.4	22.7	22.6	24.6	32.9
Hardness (as CaCO3)	21.4	15.1	8.8	8.84	9.32	8.76	8.56	8.75	8.67	9.4	8.87	8.87	9.01	9.02	9.42	34	33.1	32.9	
pH	7.06	7.05	7.30	6.87	6.83	6.81	7.31	6.90	6.87	6.86	6.79	6.63	7.00	6.58	6.84	7.42	7.57	7.77	
Total Suspended Solids	1.6	1.8	1.1	1.1	1.1	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1	
Total Dissolved Solids	36	25	25	21	27	26	18	23	30	30	23	30	19	30	28	49	53	53	
Anions and Nutrients																			
Acidity (as CaCO3)	3	2.8	2	2	2.2	2.5	2.5	2.3	2	2.3	3.1	4.6	3.9	5.4	2.1	2	2	2	
Alkalinity, Total (as CaCO3)	22.6	13.9	8.4	8.5	8.1	8.1	8.7	6.6	8.5	8	8.1	8.6	8.2	8.5	7.7	35	35.5	33.7	
Ammonia, Total (as N)	0.02	0.02	0.02	0.120	0.02	0.02	0.02	0.02	0.070	0.026	0.037	0.02	0.02	0.026	0.02	0.02	0.02	0.02	
Bromide (Br)	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	
Chloride (Cl)	0.21	0.28	0.32	0.25	0.25	0.36	0.47	0.28	0.29	0.3	0.34	0.28	0.37	0.28	0.29	0.45	0.4	0.47	
Fluoride (F)	0.02	0.022	0.035	0.032	0.021	0.029	0.039	0.027	0.025	0.022	0.038	0.030	0.038	0.024	0.022	0.022	0.02	0.02	
Nitrate (as N)	0.02	0.02	0.02	0.02	0.02	0.04	0.02	0.033	0.02	0.02	0.036	0.042	0.036	0.035	0.02	0.02	0.02	0.02	
Nitrite (as N)	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	
Total Kjeldahl Nitrogen	0.39	0.45	0.25	0.25	0.22	0.17	0.25	0.22	0.25	0.15	0.25	0.25	0.25	0.25	0.18	0.25	0.25	0.18	
Total Nitrogen	0.39	0.45	0.25	0.25	0.22	0.21	0.25	0.25	0.25	0.15	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.18	
Orthophosphate-Dissolved	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	
Phosphorus (P)-Total	0.0097	0.0118	0.0032	0.006	0.0044	0.0049	0.0055	0.0064	0.0032	0.004	0.0052	0.0046	0.0055	0.0046	0.0049	0.0053	0.0047	0.0050	
Sulfate (SO4)	3.46	2.02	1.85	1.74	3.12	1.93	2.08	1.80	2.17	2.94	1.94	1.82	2.00	2.32	2.96	2.59	2.89	2.89	
Organic / Inorganic Carbon																			
Dissolved Organic Carbon	8.8	9.5	5.7	5.9	6.8	6.9	5.9	7.1	6.2	6.2	5.9	5.8	5.9	5.8	6	4.9	5.3	5.0	
Total Organic Carbon	8.9	9.5	5.9	6.2	6.2	7.0	5.9	7.1	6.4	6.3	5.8	5.8	5.7	5.8	6.1	5.3	5.1	5.1	
Total Metals																			
Aluminum (Al)-Total	0.0213	0.0295	0.0401	0.0262	0.0383	0.0506	0.0396	0.0560	0.0274	0.0367	0.0411	0.0350	0.0404	0.0435	0.0394	0.0394	0.021	0.049	
Antimony (Sb)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Arsenic (As)-Total	0.0002	0.00017	0.00021	0.00021	0.00023	0.00021	0.00021	0.00020	0.00023	0.00021	0.00020	0.00021	0.00020	0.00021	0.00021	0.00023	0.00025	0.00025	
Barium (Ba)-Total	0.011	0.0093	0.00416	0.00402	0.00435	0.00449	0.00458	0.00428	0.00397	0.0048	0.00444	0.00432	0.00446	0.00489	0.00459	0.0063	0.00615	0.00651	
Beryllium (Be)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	
Boron (B)-Total	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	
Cadmium (Cd)-Total	0.000704	0.000005	0.000005	0.000005	0.0000886	0.0000124	0.0000215	0.0000052	0.000005	0.000021	0.0000135	0.0000067	0.0000221	0.0000078	0.000005	0.000005	0.000005	0.000005	
Calcium (Ca)-Total	6.81	5.30	2.56	2.61	2.84	2.89	2.61	2.57	2.55	2.66	2.64	2.65	2.66	2.69	2.64	12	12.1	11.8	
Cesium (Cs)-Total	0.00001	0.00001	0.000014	0.000020	0.000017	0.000016	0.000015	0.000016	0.000017	0.000016	0.000014	0.000015	0.000014	0.000015	0.000017	0.00001	0.00001	0.00001	
Chromium (Cr)-Total	0.00031	0.00017	0.00022	0.00015	0.00017	0.00023	0.00018	0.00023	0.00017	0.00017	0.00018	0.00017	0.00018	0.00017	0.00020	0.0003	0.0001	0.00014	
Cobalt (Co)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001	
Copper (Cu)-Total	0.00074	0.00050	0.0005	0.00057	0.00050	0.00066	0.00055	0.00055	0.0005	0.0005	0.0005	0.0005	0.00053	0.00054	0.0005	0.00074	0.00077	0.00069	
Iron (Fe)-Total	0.146	0.285	0.090	0.068	0.178	0.167	0.088	0.149	0.062	0.119	0.086	0.063	0.092	0.101	0.128	0.01	0.01	0.013	
Lead (Pb)-Total	0.000583	0.000081	0.00005	0.00005	0.000138	0.000050	0.00005	0.000057	0.00005	0.000153	0.00005	0.00005	0.000054	0.000058	0.000067	0.00005	0.00005	0.00005	
Lithium (Li)-Total	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	
Magnesium (Mg)-Total	0.884	0.647	0.635	0.604	0.676	0.615	0.573	0.614	0.617	0.649	0.567	0.626	0.565	0.654	0.641	0.995	1.07	1.03	
Manganese (Mn)-Total	0.0109	0.0191	0.00510	0.00462	0.0115	0.0073	0.00493	0.00762	0.00422	0.00842	0.00544	0.00834	0.00659	0.00836	0.00954	0.0021	0.00392	0.00272	
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	
Molybdenum (Mo)-Total	0.00005	0.000054	0.000071	0.000068	0.000079	0.000069	0.000075	0.000084	0.000075	0.000075	0.000075	0.000075	0.000075	0.000075	0.000072	0.000124	0.000185	0.000111	
Nickel (Ni)-Total	0.00055	0.00050	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	
Phosphorus (P)-Total	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	
Potassium (K)-Total	1.32	1.15	0.436	0.420	0.478	0.455	0.409	0.452	0.402	0.44	0.415	0.425	0.406	0.442	0.442	0.618	0.6	0.582	
Rubidium (Rb)-Total	0.00193	0.00150	0.00122	0.00126	0.00144	0.00125	0.00125	0.00137	0.00132	0.00134	0.00121	0.00133	0.00117	0.00138	0.00135	0.00105	0.00108	0.00109	
Selenium (Se)-Total	0.000056	0.000067	0.000088	0.000058	0.000068	0.000088	0.000057	0.000061	0.000106	0.00006	0.000075	0.000095	0.000071	0.000061	0.000059	0.000093	0.000076	0.000062	
Silicon (Si)-Total	1.48	0.96	1.70	1.41	1.48	1.70	1.57	1.68	1.44	1.55	1.63	1.66	2.05	1.48	1.43	1.29	1.43	1.43	
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	
Sodium (Na)-Total	1.15	0.90</																	

Parameters	STORM2	STORM2	STORM3	STORM3	SL3	SL4	SL4	SL5	SL5	SL5	SL5	SL6	SL6	SL6	SL6	WL2	WL2	WL2
Date	2-Jun-17	14-Jun-17	2-Jun-17	14-Jun-17	28-May-18	14-Aug-17	28-May-18	1-Jun-17	13-Aug-17	21-Oct-17	27-May-18	1-Jun-17	13-Aug-17	21-Oct-17	27-May-18	1-Jun-17	13-Aug-17	21-Oct-17
Time (hh:mm)	9:18	11:55	9:31	12:15	10:50	10:00	11:13	12:30	14:32	10:00	14:36	11:15	14:56	10:30	13:42	13:25	11:11	11:21
In-Situ																		
Temp	9.81	11.55	5.7	8	17.68	22.05	16.74	-	22.03	11.1	20.87	-	24.57	11.08	23.1	16.22	21.32	10.01
EC (uS/cm)	-	-	-	-	74	-	73	-	54	57	55	-	67	68	72	22	35	33
Dissolved Oxygen (%)	101.3	-	92.8	-	108.6	95.3	110.2	-	91.7	98.2	100.1	-	100.6	100	103	101.2	89.9	95.8
Dissolved Oxygen (mg/L)	-	n/a	-	n/a	10.33	8.32	10.7	-	8.02	10.61	8.94	-	8.38	11.15	8.67	9.94	7.97	10.8
pH	-	-	-	-	7.6	7.61	7.65	-	6.9	7.03	7.4	-	7.07	7.24	7.39	6.31	6.96	7.57
ORP	-	-	-	-	149.9	129.6	168	-	74.5	234.7	154.5	-	150.5	-	157.7	203.7	168	211.9
Depth (m)	8	12	24	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Physical Tests																		
Conductivity (EC)	72.8	73.1	72.7	73.3	73.7	72.7	72.9	66.9	55.6	56.9	54.7	62.6	38.9	69.1	65.6	33.1	35.4	33.6
Hardness (as CaCO3)	33.7	33.1	34.9	35.1	33.5	33.3	32.6	25.3	24.2	25.8	23.3	23	17.6	28.2	24.6	14.4	15.7	15.3
pH	7.39	7.35	7.4	7.25	7.72	7.55	7.61	7.23	7.29	7.16	7.27	7.42	7.2	7.22	7.32	6.99	7.14	7
Total Suspended Solids	1	2.3	1	2.2	1	1	1.6	1	2.8	1.4	1	1	4.5	4.1	1.7	7.6	1	1.3
Total Dissolved Solids	53	53	48	53	52	53	50	46	58	50	47	38	67	51	48	47	39	31
Anions and Nutrients																		
Acidity (as CaCO3)	2	3.2	2.2	4.5	2.0	2	2.0	4.7	2.7	3	2.4	3.3	4.2	2.7	2.3	2	2.5	2.3
Alkalinity, Total (as CaCO3)	35.7	35.2	34.9	35.1	33.5	35.3	34.8	21.6	25.6	26.8	23.8	22.9	20	28	22.3	13.2	14.7	13.5
Ammonia, Total (as N)	0.02	0.029	0.02	0.187	0.020	0.022	0.030	0.02	0.02	0.025	0.023	0.064	0.02	0.022	0.02	0.02	0.02	0.02
Bromide (Br)	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
Chloride (Cl)	0.44	0.41	0.46	0.42	0.58	0.43	0.54	1.25	0.34	0.31	0.36	3.45	3.11	3.23	4.56	0.2	0.17	0.18
Fluoride (F)	0.022	0.02	0.022	0.02	0.02	0.02	0.02	0.036	0.022	0.02	0.022	0.021	0.02	0.02	0.02	0.02	0.02	0.02
Nitrate (as N)	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.022	0.02	0.02	0.02	0.02	0.02	0.02
Nitrite (as N)	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
Total Kjeldahl Nitrogen	0.25	0.26	0.25	0.25	0.25	0.25	0.2	0.27	0.42	0.34	0.43	0.27	0.38	0.46	0.45	0.25	0.25	0.2
Total Nitrogen	0.25	0.26	0.25	0.25	0.25	0.25	0.2	0.29	0.42	0.34	0.43	0.29	0.38	0.46	0.45	0.25	0.25	0.2
Orthophosphate-Dissolved	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Phosphorus (P)-Total	0.007	0.0063	0.0062	0.0064	0.005	0.004	0.006	0.0079	0.0107	0.006	0.0104	0.0074	0.0091	0.0126	0.0149	0.0064	0.0076	0.0046
Sulfate (SO4)	2.53	2.89	2.67	3.1	2.58	2.86	2.70	7.90	3.32	3.58	2.74	2.36	2.59	3.46	2.35	1.77	3	2.51
Organic / Inorganic Carbon																		
Dissolved Organic Carbon	5.1	4.7	4.9	4.8	5.2	5.6	4.9	9.6	10.7	10.5	11.2	8.6	9.1	13.5	10.1	7.6	7.5	7.9
Total Organic Carbon	5.2	5.1	4.9	4.6	5.3	4.8	5.1	9.1	11.1	10.9	11.4	8.2	9.3	12	11.2	7.5	8.9	7.7
Total Metals																		
Aluminum (Al)-Total	0.0111	0.0118	0.0082	0.0207	0.0065	0.0115	0.0059	0.273	0.0147	0.0169	0.0284	0.0213	0.0249	0.0229	0.0711	0.0382	0.0217	0.0323
Antimony (Sb)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001
Arsenic (As)-Total	0.00023	0.00028	0.00024	0.00025	0.00026	0.00029	0.00024	0.00020	0.00023	0.00022	0.00020	0.00018	0.00025	0.00023	0.00020	0.00025	0.00026	0.00024
Barium (Ba)-Total	0.00767	0.00646	0.00633	0.00642	0.00683	0.00638	0.00650	0.0113	0.0098	0.0111	0.0108	0.0119	0.00505	0.0148	0.0136	0.00447	0.00402	0.00469
Beryllium (Be)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.0000297	0.000005	0.000005	0.000005	0.000005	0.000021	0.000005	0.0000062	0.0000245	0.000005	0.000005	0.000005	0.000005	0.0000063	0.0000069	0.000005	0.000005	0.000005
Calcium (Ca)-Total	11.8	11.9	11.3	12.1	12.0	12.3	11.8	8.61	8.31	8.54	8.16	7.92	5.97	9.87	8.92	4.93	5.5	5.23
Cesium (Cs)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.000025	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Chromium (Cr)-Total	0.00012	0.0001	0.0001	0.00012	0.00015	0.00015	0.00012	0.00008	0.00018	0.00031	0.0002	0.00018	0.00015	0.00015	0.00016	0.00018	0.00018	0.0002
Cobalt (Co)-Total	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	0.0001	0.0001	0.0001	0.0001	0.0001
Copper (Cu)-Total	0.00079	0.0008	0.00093	0.00071	0.00065	0.00073	0.00062	0.00148	0.00074	0.0006	0.00080	0.00066	0.00066	0.00081	0.00093	0.00077	0.00066	0.00066
Iron (Fe)-Total	0.01	0.023	0.01	0.025	0.020	0.019	0.014	0.252	0.201	0.322	0.203	0.483	0.43	0.478	0.733	0.93	0.77	0.89
Lead (Pb)-Total	0.000051	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00009	0.00005	0.00005	0.00005
Lithium (Li)-Total	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
Magnesium (Mg)-Total	0.977	1.06	0.976	1.07	1.01	1.08	1.02	1.00	1.01	1	0.97	0.730	0.759	0.984	0.851	0.584	0.627	0.648
Manganese (Mn)-Total	0.00213	0.00494	0.00255	0.00495	0.00366	0.0035	0.00326	0.00550	0.00276	0.00411	0.00334	0.00233	0.00247	0.00289	0.00349	0.0106	0.00828	0.00792
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.000111	0.000141	0.000105	0.000112	0.000111	0.000121	0.000134	0.00051	0.00061	0.00054	0.00052	0.00011	0.00016	0.00057	0.00056	0.00005	0.00005	0.00005
Nickel (Ni)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.634	0.613	0.612	0.606	0.611	0.607	0.587	1.34	1.26	1.54	1.49	1.20	0.331	1.24	1.38	0.933	0.377	0.422
Rubidium (Rb)-Total	0.00111	0.00113	0.00102	0.00111	0.00113	0.00113	0.00107	0.00201	0.00177	0.00193	0.00179	0.00184	0.00159	0.00214	0.00211	0.00116	0.00117	0.00126
Selenium (Se)-Total	0.000066	0.000103	0.000093	0.000087	0.000081	0.000076	0.000057	0.000060	0.000088	0.000091	0.000088	0.00005	0.000082	0.00006	0.000079	0.000075	0.000096	0.000077
Silicon (Si)-Total	1.34	1.56	1.49	1.84	1.43	1.32	1.44	3.58	3.39	3.79	3.56							

Parameters	M1	M2	M2	M2	M2	M3	M3	M3	M4	M4	M4	M4	PL1	PL1
Date	27-May-18	31-May-17	13-Aug-17	22-Oct-17	27-May-18	13-Aug-17	21-Oct-17	27-May-18	1-Jun-17	11-Aug-17	21-Oct-17	27-May-18	22-Oct-17	26-May-18
Time (hh:mm)	9:00	17:41	12:12	17:01	10:06	15:21	7:12	10:50	10:30	12:46	14:23	11:40	17:01	
In-Situ														
Temp	21.81	15.82	23.98	11.02	21.4	23.32	11.3	20.9	-	23.76	10.09	23.8	10.37	20.78
EC (uS/cm)	24	23	18	19	40	37	38	-	-	76	54	46	49	44
Dissolved Oxygen (%)	99.8	93.2	100	98.9	105.6	69.4	93	87.1	-	74.1	100	102.3	99	92
Dissolved Oxygen (mg/L)	8.76	9.23	8.48	10.77	9.28	5.9	10.06	7.7	-	6.14	11.98	8.57	11.07	8.23
pH	7.63	6.88	7.13	7.96	7.33	7.02	7.1	6.9	-	6.51	7.43	7.57	7.57	7.66
ORP	137.9	138	204.7	124.9	138.1	150.5	166	132.9	-	13.3	233.7	139.3	198.6	131.8
Depth (m)														
Physical Tests														
Conductivity (EC)	24.0	23.6	18.4	19.7	18.9	67.4	36.4	39.8	55.3	55.8	54.3	46.4	49.1	45.8
Hardness (as CaCO3)	10.1	9.48	7.04	7.73	7.1	27.5	15.8	14.6	25.3	26.3	27.7	21.3	21.7	20.3
pH	6.91	6.95	6.75	7.03	6.81	7.32	6.98	6.87	7.50	7.38	7.23	7.15	7.30	7.40
Total Suspended Solids	2.0	17.7	1.6	1.7	1.9	1.1	1.1	1.0	1.2	3.1	3.9	2.2	1	1.4
Total Dissolved Solids	23	29	32	23	20	34	31	28	39	53	50	53	37	30
Anions and Nutrients														
Acidity (as CaCO3)	2.3	3.1	2.4	2.2	2.6	3.4	3.0	3.3	2.5	2.1	3.3	2.0	2.0	2.0
Alkalinity, Total (as CaCO3)	9.1	9.8	6.7	7.8	6.7	28.3	15.3	13.4	27.4	28.9	28.4	21.6	25.1	22.0
Ammonia, Total (as N)	0.02	0.130	0.033	0.02	0.02	0.051	0.020	0.020	0.02	0.02	0.021	0.034	0.034	0.042
Bromide (Br)	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
Chloride (Cl)	0.14	0.16	0.14	0.22	0.18	3.09	0.32	1.97	0.12	0.12	0.12	0.12	0.14	0.15
Fluoride (F)	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
Nitrate (as N)	0.02	0.02	0.02	0.02	0.02	0.02	0.027	0.049	0.02	0.02	0.02	0.02	0.02	0.029
Nitrite (as N)	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
Total Kjeldahl Nitrogen	0.37	0.36	0.34	0.4	0.31	0.51	0.29	0.32	0.49	0.61	0.65	0.63	0.26	0.33
Total Nitrogen	0.37	0.36	0.34	0.4	0.31	0.51	0.35	0.37	0.49	0.61	0.65	0.63	0.26	0.36
Orthophosphate-Dissolved	0.003	0.0041	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Phosphorus (P)-Total	0.0179	0.0080	0.0061	0.0078	0.0063	0.012	0.0054	0.0081	0.0083	0.01	0.0146	0.0141	0.0039	0.0080
Sulfate (SO4)	0.85	0.84	1.79	2.02	1.22	2.39	2.04	1.13	0.43	0.52	1.29	0.82	2.37	1.50
Organic / Inorganic Carbon														
Dissolved Organic Carbon	8.8	8.3	7.9	8.8	8.4	12	7.3	7.6	11.1	12.8	14.5	11.8	5.2	5.8
Total Organic Carbon	9.6	8.6	8.6	8.7	8.7	12.8	7.2	8.3	11.4	15.1	14.9	13.3	5.3	6.3
Total Metals														
Aluminum (Al)-Total	0.0263	0.0267	0.0257	0.0368	0.0403	0.0339	0.0181	0.0202	0.0310	0.0533	0.0347	0.0444	0.0039	0.0132
Antimony (Sb)-Total	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	0.0001
Arsenic (As)-Total	0.00021	0.00018	0.00024	0.00025	0.00022	0.00028	0.00017	0.00019	0.00022	0.00033	0.00028	0.00026	0.00014	0.00013
Barium (Ba)-Total	0.00689	0.00782	0.00466	0.0057	0.00566	0.0132	0.00676	0.00713	0.00994	0.0117	0.0122	0.0095	0.0130	0.0129
Beryllium (Be)-Total	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	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.000005	0.000005	0.000005	0.0000165	0.0000050	0.0000128	0.000005	0.0000051	0.000005	0.000005	0.0000069	0.0000050	0.000005	0.0000087
Calcium (Ca)-Total	3.10	2.96	1.91	2.01	1.97	9.89	5.09	4.99	9.62	9.44	9.21	7.57	7.87	6.93
Cesium (Cs)-Total	0.000020	0.000023	0.000018	0.00002	0.000017	0.000017	0.000027	0.000029	0.00001	0.000014	0.000011	0.000010	0.00001	0.000011
Chromium (Cr)-Total	0.00019	0.00021	0.00025	0.00025	0.00025	0.00025	0.00023	0.00023	0.00024	0.00023	0.00021	0.00025	0.0001	0.00027
Cobalt (Co)-Total	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	0.0001
Copper (Cu)-Total	0.00053	0.00210	0.00062	0.00068	0.00065	0.00089	0.00071	0.00091	0.00063	0.00078	0.00073	0.00074	0.0005	0.0005
Iron (Fe)-Total	0.283	0.216	0.058	0.245	0.178	0.866	0.212	0.203	0.070	0.078	0.109	0.090	0.078	0.167
Lead (Pb)-Total	0.00005	0.000126	0.00005	0.00006	0.000050	0.000084	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.000053
Lithium (Li)-Total	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
Magnesium (Mg)-Total	0.594	0.590	0.617	0.659	0.638	0.936	0.726	0.656	0.802	0.933	0.957	0.740	0.761	0.698
Manganese (Mn)-Total	0.0100	0.00907	0.0116	0.0371	0.0132	0.0734	0.0142	0.0186	0.0111	0.0366	0.0313	0.0185	0.0143	0.0355
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.00005	0.00005	0.000058	0.000058	0.000050	0.000082	0.00065	0.00099	0.00005	0.000059	0.00005	0.00005	0.00005	0.00005
Nickel (Ni)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.772	0.768	0.461	0.498	0.512	1.02	0.561	0.559	1.03	1.11	1.21	1.07	1.21	1.16
Rubidium (Rb)-Total	0.000201	0.000199	0.00161	0.00162	0.00163	0.00188	0.00208	0.00195	0.00192	0.00223	0.0024	0.00211	0.00190	0.00189
Selenium (Se)-Total	0.000082	0.000066	0.000065	0.000061	0.000066	0.000098	0.000052	0.000081	0.000085	0.000109	0.000102	0.000075	0.000062	0.000050
Silicon (Si)-Total	1.09	0.99	1.26	1.25	1.37	2.4	1.88	1.90	3.33	4.48	0.73	0.47	2.37	2.14
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	0.788	0.715	0.78	0.809	0.861	2.5	1.2	1.86	0.699	0.78	0.794	0.751	0.913	0.905
Strontium (Sr)-Total	0.0105	0.0105	0.00075	0.00089	0.00088	0.0257	0.0143	0.0136	0.0191	0.0193	0.0187	0.0135	0.0200	0.0170
Sulfur (S)-Total	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
Tellurium (Te)-Total	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002	0.00002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	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	0.0001
Tin (Sn)-Total	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	0.0001
Titanium (Ti)-Total	0.00039	0.00056	0.0003	0.00067	0.00047	0.00153	0.0003	0.0003	0.0003	0.00037	0.00035	0.00038	0.0003	0.00032
Tungsten (W)-Total	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	0.0001
Uranium (U)-Total	0.00001	0.00001	0.000025	0.000024	0.000024	0.00003	0.00001	0.00001	0.00001	0.000012	0.00001	0.00001	0.00001	0.00001
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.003	0.0044	0.003	0.003	0.0101	0.0067	0.0							

Appendix 3

Water Quality Results Comparison to CWQG-PAL Short and Long-term Criteria

Table 1

Analyte	CEQG-PAL ²
Physical Tests	
pH (unitless)	6.5-9
Nutrients	
Ammonia, Total (as N)	*refer to table
Chloride (Cl)	120
Fluoride (F)	0.12
Nitrate (as N)	13
Nitrite (as N)	0.197
Metals	
Aluminum (Al)-Total	0.1
Arsenic (As)-Total	0.005
Boron (B)-Total	1.5
Cadmium (Cd)-Total	$10^{(0.83 \times (\log(H)) - 2.46)}$ <u>1000</u>
Chromium (Cr)-Total	0.0089
Copper (Cu)-Total	$0.2 \times e^{(0.8545 \times (\ln(H)) - 1.465)}$ <u>1000</u>
Iron (Fe)-Total	0.3
Lead (Pb)-Total	$e^{(1.273 \times (\ln(H)) - 4.705)}$ <u>1000</u>
Mercury (Hg)-Total	0.00026
Molybdenum (Mo)-Total	0.073
Nickel (Ni)-Total	$e^{(0.76 \times (\ln(H)) + 1.06)}$ <u>1000</u>
Selenium (Se)-Total	0.001
Silver (Ag)-Total	0.0001
Thallium (Tl)-Total	0.0008
Uranium (U)-Total	0.015
Zinc (Zn)-Total	0.03

NOTES:

1. Units are mg/L unless otherwise stated

2. Canadian Environmental Quality Guideline for the Protection of Aquatic Life

3. Indicates that values exceed the limit of Canadian Environmental Quality Guidelines for the protection of freshwater aquatic life

*Table used to determine guideline value for ammonia

Temperature (degrees Celsius)	pH								
	6	6.5	7	7.5	8	8.5	9	10	
0	231	73	23.1	7.32	2.33	0.749	0.25	0.042	
5	153	48.3	15.3	4.84	1.54	0.502	0.172	0.034	
10	102	32.4	10.3	3.26	1.04	0.343	0.121	0.029	
15	69.7	22	6.98	2.22	0.715	0.239	0.089	0.026	
20	48	15.2	4.82	1.54	0.499	0.171	0.067	0.024	
25	33.5	10.6	3.37	1.08	0.354	0.125	0.053	0.022	
30	23.7	7.5	2.39	0.767	0.256	0.094	0.043	0.021	



Table 2 - Surface Water Quality Data

Page 1 of 5

Parameters	TC1	TC1	TC1	TC1	TC2	TC2	TC2	TC2	BGL1	BGL1	BGL1	BGL 1	BGL2	BGL2
Date	1-Jun-17	14-Aug-17	21-Oct-17	26-May-18	1-Jun-17	13-Aug-17	20-Oct-17	25-May-18	1-Jun-17	14-Aug-17	21-Oct-17	27-May-18	1-Jun-17	11-Aug-17
Time (hr:mm)	16:30	8:16	17:50	16:15	21:20	10:08	14:50	-	14:30	14:20	9:00	15:49	10:45	12:33
In-Situ														
Temp	-	20.03	11.17	22.65	-	22.11	11.34	17.95	-	24.18	11.3	20.87	10.94	22.97
EC (uS/cm)	-	29	29	26	-	22	22	24	-	18	21	21	23	23
Dissolved Oxygen (%)	-	83.4	99.4	101.7	-	88.8	100	108	-	100	97.8	98.5	101.7	94.58
Dissolved Oxygen (mg/L)	-	7.57	10.93	8.71	-	7.73	11.35	10.19	-	8.36	10.64	8.62	11.14	8.09
pH	-	7.34	7.25	7.8	-	7.39	7.95	7.54	-	7.44	7.62	7.41	6.65	6.55
ORP	-	141.5	207.3	88.8	-	168.2	186.9	131.9	-	166.2	161.7	115.8	168	215.5
Depth (m)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	1.10	1.84	2.07	1.12	1.70	2.33	2.48	1.8	0.97	1.37	1.63	1.57	1.81	2.29
Organic / Inorganic Carbon														
Dissolved Organic Carbon	9.4	9.2	9.7	10.9	6.0	6.1	6.2	6.3	10.7	12.1	12	12.7	6.1	6.3
Total Organic Carbon	9.4	9.6	9.5	9.1	5.7	5.9	6.1	6.4	10.4	12.7	13.2	13.1	6.1	6.5
Total Metals														
Aluminum (Al)-Total	0.0619	0.0412	0.0737	0.0498	0.0391	0.0252	0.044	0.0465	0.149	0.127	0.172	0.151	0.0403	0.0333
Antimony (Sb)-Total	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	0.0001
Arsenic (As)-Total	0.00025	0.00033	0.00034	0.00025	0.00022	0.00026	0.00022	0.00019	0.00029	0.00034	0.00033	0.00031	0.00021	0.00023
Barium (Ba)-Total	0.00396	0.00442	0.00498	0.00360	0.00405	0.00385	0.00449	0.00424	0.00481	0.0034	0.00552	0.00503	0.00448	0.00439
Beryllium (Be)-Total	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	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.0000149	0.000012	0.0000701	0.0000068	0.000005	0.0000056	0.0000282	0.0000087	0.0000121	0.0000615	0.000016	0.0000175	0.0000185	0.000328
Calcium (Ca)-Total	2.03	2.42	2.46	2.28	2.49	2.52	2.6	2.62	1.32	1.4	1.54	1.65	2.77	2.55
Cesium (Cs)-Total	0.00001	0.000011	0.00001	0.000010	0.000015	0.000018	0.000019	0.000015	0.000014	0.000019	0.000017	0.000019	0.000014	0.000017
Chromium (Cr)-Total	0.00024	0.00023	0.00028	0.00042	0.00018	0.00016	0.00039	0.00024	0.00033	0.00033	0.00036	0.00032	0.00017	0.00027
Cobalt (Co)-Total	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	0.0001
Copper (Cu)-Total	0.0005	0.00053	0.00058	0.00050	0.0005	0.0005	0.00051	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Iron (Fe)-Total	0.300	0.334	0.584	0.358	0.087	0.089	0.155	0.128	0.300	0.174	0.351	0.235	0.078	0.049
Lead (Pb)-Total	0.0000126	0.0000154	0.0000296	0.0000134	0.00005	0.00005	0.000069	0.00005	0.000109	0.000135	0.000158	0.000105	0.00005	0.000145
Lithium (Li)-Total	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
Magnesium (Mg)-Total	0.496	0.638	0.644	0.592	0.627	0.623	0.653	0.627	0.404	0.444	0.483	0.475	0.571	0.618
Manganese (Mn)-Total	0.00624	0.0153	0.0108	0.0080	0.00472	0.0088	0.00978	0.00677	0.0104	0.0081	0.0113	0.0171	0.00493	0.00222
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.00005	0.000064	0.00005	0.00005	0.000062	0.000079	0.000075	0.000059	0.00005	0.000051	0.00005	0.00005	0.000077	0.000072
Nickel (Ni)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.297	0.348	0.428	0.359	0.429	0.405	0.431	0.445	0.342	0.386	0.374	0.453	0.418	0.419
Rubidium (Rb)-Total	0.00094	0.00128	0.00133	0.00109	0.00124	0.00142	0.00114	0.00125	0.00115	0.00119	0.00126	0.00151	0.00122	0.00131
Selenium (Se)-Total	0.000059	0.000092	0.000055	0.000097	0.00005	0.000087	0.00005	0.000064	0.000083	0.000127	0.000088	0.000068	0.000064	0.000095
Silicon (Si)-Total	1.72	1.61	1.91	1.67	1.56	1.38	1.43	1.58	1.46	1.04	1.37	1.51	1.56	1.40
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	1.83	2.36	2.65	2.13	0.932	0.933	0.987	1.07	1.73	1.52	1.53	2.25	0.909	0.933
Strontium (Sr)-Total	0.00967	0.0112	0.0109	0.0098	0.0119	0.0121	0.0125	0.0118	0.00866	0.00904	0.00957	0.0099	0.0125	0.0117
Sulfur (S)-Total	0.5	0.5	0.5	0.5	0.62	0.6	0.5	0.66	0.5	0.5	0.5	0.5	0.5	0.5
Tellurium (Te)-Total	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	0.00011	0.0001	0.00012	0.00010	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Tin (Sn)-Total	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	0.0001
Titanium (Ti)-Total	0.00091	0.00076	0.00145	0.00072	0.00045	0.0003	0.00127	0.0009	0.00107	0.0011	0.00144	0.00096	0.00034	0.00064
Tungsten (W)-Total	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	0.0001
Uranium (U)-Total	0.000083	0.000099	0.000108	0.000076	0.000079	0.000088	0.000084	0.000081	0.000051	0.000058	0.000061	0.000051	0.000062	0.000074
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.003	0.003	0.0051	0.0030	0.003	0.003	0.003	0.0038	0.003	0.0034	0.003	0.0038	0.003	0.003
Zirconium (Zr)-Total	0.000086	0.000074	0.000095	0.000082	0.000065	0.00006	0.00006	0.00006	0.000131	0.000129	0.000131	0.000138	0.000061	0.00006
Dissolved Metals (Water)														
Aluminum (Al)-Dissolved	0.0613	0.0215	0.0362	0.0338	0.0259	0.0157	0.016	0.0271	0.137	0.109	0.15	0.17	0.0210	0.0218
Antimony (Sb)-Dissolved	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	0.0001
Arsenic (As)-Dissolved	0.00025	0.00031	0.00029	0.00022	0.00017	0.00019	0.00019	0.00015	0.00028	0.00034	0.00031	0.00029	0.00011	0.00020
Barium (Ba)-Dissolved	0.00372	0.0042	0.00499	0.00327	0.00398	0.00379	0.00407	0.00418	0.00481	0.00334	0.00534	0.00567	0.00293	0.00407
Beryllium (Be)-Dissolved	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	0.0001
Bismuth (Bi)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	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
Cadmium (Cd)-Dissolved	0.0000059	0.0000054	0.0000434	0.0000062	0.000005	0.0000086	0.0000214	0.000005	0.0000097	0.0000585	0.0000105	0.000031	0.0000178	0.000051
Calcium (Ca)-Dissolved	2.00	2.37	2.56	2.15	2.41	2.42	2.62	2.44	1.41	1.35	1.55	1.6	2.95	2.44
Cesium (Cs)-Dissolved	0.00001	0.00001	0.00001	0.00001	0.000014	0.000018	0.000017	0.000016	0.000015	0.000015	0.000016	0.00002	0.000013	0.000016
Chromium (Cr)-Dissolved	0.00030	0.00011	0.00018	0.00022	0.00010	0.0001	0.00014	0.00015	0.00019	0.00027	0.0003	0.00034	0.00011	0.00010
Cobalt (Co)-Dissolved	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	0.0001
Copper (Cu)-Dissolved	0.00031	0.00033	0.00089	0.00027	0.00028	0.0003	0.00033	0.00026	0.00036	0.00048	0.00033	0.00047	0.0002	0.00028
Iron (Fe)-Dissolved	0.232	0.171	0.294	0.239	0.041	0.04	0.053	0.061	0.230	0.12				

Table 2 - Surface Water Quality Data

Page 2 of 5

Parameters	BGL1	BGL2	BGL3	BGL3	BGL3	BGL3	BGL5	BGL5	BGL5	BGL5	BEND1	BEND1	BEND1	Bending Lake 1
Date	20-Oct-17	25-May-18	31-May-17	11-Aug-17	20-Oct-17	25-May-18	31-May-17	11-Aug-17	20-Oct-17	25-May-18	1-Jun-17	11-Aug-17	20-Oct-17	25-May-18
Time (hh:mm)	13:40	-	14:01	12:59	14:45	-	15:15	10:30	12:01	-	9:01	11:40	13:25	-
in-Situ														
Temp	11.27	20.2	15.34	23.2	8.69	22.53	13.13	22.23	10.7	14.3	12.42	21.8	10.81	16.67
EC (uS/cm)	23	23	55	47	47	38	22	23	23	23	-	-	-	23
Dissolved Oxygen (%)	94.4	111	96.2	96.6	99	106.6	100.2	90.4	93.7	105.1	100	-	96	107
Dissolved Oxygen (mg/L)	10.34	10.07	9.64	8.28	11.55	9.21	10.54	7.83	10.39	10.78	-	7.97	10.68	10.42
pH	7.03	7.2	6.98	6.64	7.12	7.38	6.45	7.43	7.56	6.98	-	-	-	7.04
ORP	212.1	146.8	95.4	244.5	182	156.4	180	146.1	194	155.2	-	-	-	146.1
Depth (m)	-	-	-	-	-	-	-	-	-	-	3	2	1	Surface
Sulfate (SO4)	2.55	1.83	2.37	2.58	3.46	2.02	1.85	1.74	3.12	1.93	2.08	2.17	2.94	1.8
Organic / Inorganic Carbon														
Dissolved Organic Carbon	5.8	7	7.1	9.6	8.8	9.5	5.7	5.9	6.8	6.9	5.9	6.2	6.2	7.1
Total Organic Carbon	5.9	7.3	7.4	9.6	8.9	9.5	5.9	6.2	6.2	7	5.9	6.4	6.3	7.1
Total Metals														
Aluminum (Al)-Total	0.0396	0.0529	0.0164	0.0121	0.0213	0.0295	0.0401	0.0262	0.0383	0.0506	0.0396	0.0274	0.0367	0.056
Antimony (Sb)-Total	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	0.0001
Arsenic (As)-Total	0.00023	0.00019	0.00018	0.00024	0.0002	0.00017	0.00021	0.00021	0.00023	0.00021	0.00021	0.00023	0.00021	0.0002
Barium (Ba)-Total	0.00467	0.00431	0.0107	0.0102	0.011	0.00926	0.00416	0.00402	0.00435	0.00449	0.00458	0.00397	0.0048	0.00428
Beryllium (Be)-Total	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	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.00045	0.000005	0.0000106	0.0000237	0.000704	0.000005	0.000005	0.000005	0.0000886	0.0000124	0.0000215	0.000005	0.000021	0.0000052
Calcium (Ca)-Total	2.65	2.61	6.46	7.02	6.81	5.3	2.56	2.61	2.64	2.69	2.61	2.55	2.66	2.57
Cesium (Cs)-Total	0.000017	0.000016	0.00001	0.000012	0.00001	0.00001	0.000014	0.000020	0.000017	0.000016	0.000015	0.000017	0.000016	0.000016
Chromium (Cr)-Total	0.000324	0.00027	0.00017	0.00019	0.00031	0.00017	0.00022	0.00015	0.00017	0.00023	0.00018	0.00017	0.00037	0.00023
Cobalt (Co)-Total	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	0.0001
Copper (Cu)-Total	0.00074	0.0005	0.0005	0.0005	0.00074	0.0005	0.0005	0.0005	0.00057	0.0005	0.00066	0.0005	0.0005	0.0005
Iron (Fe)-Total	0.093	0.132	0.207	0.363	0.146	0.285	0.090	0.068	0.178	0.167	0.088	0.062	0.119	0.149
Lead (Pb)-Total	0.000523	0.00005	0.000062	0.000088	0.000583	0.000081	0.00005	0.00005	0.000138	0.00005	0.00005	0.00005	0.000153	0.000057
Lithium (Li)-Total	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
Magnesium (Mg)-Total	0.656	0.618	0.759	0.888	0.884	0.647	0.635	0.604	0.676	0.615	0.573	0.617	0.649	0.614
Manganese (Mn)-Total	0.00532	0.00711	0.0227	0.0246	0.0109	0.0191	0.00510	0.00462	0.0115	0.00729	0.00493	0.00422	0.00842	0.00762
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.000011	0.000079	0.000054	0.000076	0.00005	0.000054	0.000071	0.000066	0.000079	0.000069	0.000075	0.000088	0.000075	0.000084
Nickel (Ni)-Total	0.00163	0.0005	0.0005	0.0005	0.00055	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.465	0.465	1.21	0.989	1.32	1.15	0.436	0.420	0.478	0.455	0.409	0.402	0.44	0.452
Rubidium (Rb)-Total	0.00139	0.00128	0.00152	0.00167	0.00193	0.0015	0.00122	0.00126	0.00144	0.00125	0.00125	0.00132	0.00134	0.00137
Selenium (Se)-Total	0.000079	0.000097	0.000085	0.000064	0.000056	0.000067	0.000088	0.000058	0.000068	0.000088	0.000057	0.000106	0.00006	0.000061
Silicon (Si)-Total	1.47	1.67	0.82	1.29	1.48	0.96	1.70	1.41	1.48	1.57	1.44	1.55	1.68	1.68
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	1.04	1.02	0.951	0.996	1.15	0.898	0.919	0.960	1.04	0.976	0.891	0.919	1.03	0.984
Strontium (Sr)-Total	0.0119	0.0114	0.0168	0.0201	0.0179	0.0132	0.0119	0.0117	0.0123	0.0116	0.0123	0.0118	0.0121	0.0115
Sulfur (S)-Total	0.53	0.66	0.78	0.8	0.5	0.76	0.69	0.5	0.57	0.68	0.57	0.51	0.5	0.58
Tellurium (Te)-Total	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	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	0.0001
Tin (Sn)-Total	0.00011	0.0001	0.00040	0.0001	0.00013	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Titanium (Ti)-Total	0.00063	0.00047	0.00046	0.00035	0.00061	0.00075	0.00043	0.0003	0.0007	0.00052	0.00040	0.0003	0.00045	0.0005
Tungsten (W)-Total	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	0.0001
Uranium (U)-Total	0.00007	0.000066	0.000019	0.00002	0.000022	0.000025	0.000070	0.000074	0.000073	0.000063	0.000065	0.000075	0.00007	0.000067
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Zirconium (Zr)-Total	0.00006	0.000061	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
Dissolved Metals (Water)														
Aluminum (Al)-Dissolved	0.0207	0.0399	0.0083	0.006	0.008	0.0164	0.0287	0.0194	0.0225	0.0414	0.0267	0.0227	0.0218	0.0406
Antimony (Sb)-Dissolved	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	0.0001
Arsenic (As)-Dissolved	0.00021	0.00019	0.00016	0.00021	0.00017	0.00015	0.00018	0.00020	0.0002	0.00016	0.00014	0.00021	0.00022	0.00017
Barium (Ba)-Dissolved	0.00443	0.00408	0.0102	0.00951	0.0101	0.00889	0.00400	0.00391	0.0042	0.00439	0.00329	0.00401	0.00439	0.00444
Beryllium (Be)-Dissolved	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	0.0001
Bismuth (Bi)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	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
Cadmium (Cd)-Dissolved	0.000122	0.000005	0.0000268	0.0000323	0.0000424	0.000005	0.000005	0.000005	0.000055	0.000015	0.0000056	0.0000141	0.000005	0.000005
Calcium (Ca)-Dissolved	2.71	2.55	6.32	6.76	7.15	5.01	2.52	2.52	2.67	2.49	2.55	2.47	2.7	2.48
Cesium (Cs)-Dissolved	0.000016	0.000014	0.00001	0.00001	0.00001	0.00001	0.000014	0.000016	0.000018	0.000017	0.000014	0.000016	0.000016	0.000018
Chromium (Cr)-Dissolved	0.00046	0.00015	0.00010	0.0001	0.00075	0.0001	0.00010	0.00010	0.0002	0.00027	0.00010	0.00010	0.0001	0.00043
Cobalt (Co)-Dissolved	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	0.0001
Copper (Cu)-Dissolved	0.00034	0.00027	0.00038	0.00037	0									

Table 2 - Surface Water Quality Data

Page 3 of 5

Parameters	BEND2	BEND2	BEND3	BEND3	BEND3	STORM1	STORM1	STORM1	STORM2	STORM2	STORM3	STORM3	SL3	SL4
Date	1-Jun-17	11-Aug-17	1-Jun-17	11-Aug-17	20-Oct-17	2-Jun-17	14-Aug-17	28-May-18	2-Jun-17	14-Aug-17	2-Jun-17	14-Aug-17	28-May-18	14-Aug-17
Time (hh:mm)	9:22	11:56	9:41	12:03	13:25	9:05	11:30	11:30	9:18	11:55	9:31	12:15	10:50	10:00
in-Situ														
Temp	8.26	10.24	6.18	7.34	8.98	11.78	21.84	16.62	9.81	11.55	5.7	8	17.68	22.05
EC (uS/cm)	-	-	-	-	-	-	-	73	-	-	-	-	74	-
Dissolved Oxygen (%)	99.2	-	84.3	-	69.8	104.8	-	114	101.3	-	92.8	-	108.6	95.3
Dissolved Oxygen (mg/L)	-	6.25	-	3.21	7.77	-	9.28	11.2	-	n/a	-	n/a	10.33	8.32
pH	-	-	-	-	-	-	-	7.74	-	-	-	-	7.6	7.61
ORP	-	-	-	-	-	-	-	169.7	-	-	-	-	149.9	129.6
Depth (m)	8	10	17	17	14	2	2	Surface	8	12	24	22	-	-
Sulfate (SO4)	1.94	1.82	2.00	2.32	2.96	2.59	2.89	2.89	2.53	2.89	2.67	3.1	2.58	2.86
Organic / Inorganic Carbon														
Dissolved Organic Carbon	5.9	5.8	5.9	5.8	6	4.9	5.3	5	5.1	4.7	4.9	4.8	5.2	5.6
Total Organic Carbon	5.8	5.8	5.7	5.8	6.1	5.3	5.1	5.1	5.2	5.1	4.9	4.6	5.3	4.8
Total Metals														
Aluminum (Al)-Total	0.0411	0.0350	0.0404	0.0435	0.0394	0.0084	0.021	0.0049	0.0111	0.0118	0.0082	0.0207	0.0065	0.0115
Antimony (Sb)-Total	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	0.0001
Arsenic (As)-Total	0.00020	0.00021	0.00020	0.00021	0.00021	0.00023	0.00025	0.00025	0.00023	0.00028	0.00024	0.00025	0.00026	0.00029
Barium (Ba)-Total	0.00444	0.00432	0.00446	0.00489	0.00459	0.0063	0.00615	0.00651	0.00767	0.00646	0.00633	0.00642	0.00683	0.00638
Beryllium (Be)-Total	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	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.000069	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.000005	0.0000135	0.0000067	0.0000221	0.0000078	0.000005	0.000005	0.000005	0.0000297	0.000005	0.000005	0.000005	0.000005	0.000121
Calcium (Ca)-Total	2.64	2.65	2.66	2.69	2.64	12	12.1	11.8	11.8	11.9	11.3	12.1	12.0	12.3
Cesium (Cs)-Total	0.000014	0.000015	0.000014	0.000015	0.000017	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Chromium (Cr)-Total	0.00017	0.00018	0.00017	0.00020	0.0003	0.0001	0.00014	0.00015	0.00012	0.0001	0.0001	0.00012	0.00015	0.00038
Cobalt (Co)-Total	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	0.0001
Copper (Cu)-Total	0.0005	0.0005	0.00053	0.00064	0.0005	0.00074	0.00077	0.00069	0.00079	0.0008	0.00093	0.00071	0.00085	0.00073
Iron (Fe)-Total	0.086	0.063	0.092	0.101	0.128	0.01	0.01	0.013	0.01	0.023	0.01	0.025	0.020	0.019
Lead (Pb)-Total	0.00005	0.00005	0.000054	0.000058	0.000067	0.00005	0.00005	0.00005	0.000051	0.00005	0.00005	0.00005	0.00005	0.00005
Lithium (Li)-Total	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
Magnesium (Mg)-Total	0.567	0.626	0.565	0.654	0.641	0.995	1.07	1.03	0.977	1.06	0.976	1.07	1.01	1.08
Manganese (Mn)-Total	0.00054	0.00034	0.00059	0.00036	0.00054	0.0021	0.00392	0.00272	0.00213	0.00494	0.00255	0.00495	0.00366	0.0035
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.000066	0.000064	0.000069	0.000072	0.000072	0.000124	0.000185	0.000111	0.000111	0.000141	0.000105	0.000112	0.000111	0.000121
Nickel (Ni)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.415	0.425	0.406	0.442	0.442	0.618	0.6	0.582	0.634	0.613	0.612	0.606	0.611	0.607
Rubidium (Rb)-Total	0.00121	0.00133	0.00117	0.00138	0.00135	0.00105	0.00108	0.00109	0.00111	0.00113	0.00102	0.00111	0.00113	0.00113
Selenium (Se)-Total	0.000075	0.000095	0.000071	0.000061	0.000059	0.000093	0.000076	0.000062	0.000066	0.000103	0.000093	0.000087	0.000081	0.000076
Silicon (Si)-Total	1.63	1.83	1.66	2.05	1.48	1.43	1.29	1.43	1.34	1.56	1.49	1.84	1.43	1.32
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	0.892	0.917	0.886	0.951	0.989	0.937	0.941	1	0.946	0.936	0.911	0.937	1.040	0.969
Strontium (Sr)-Total	0.0123	0.0120	0.0123	0.0123	0.0121	0.0253	0.0264	0.0256	0.0259	0.0262	0.0245	0.0261	0.0251	0.0273
Sulfur (S)-Total	0.5	0.92	0.5	0.5	3.38	0.85	0.87	0.98	0.79	0.85	0.67	1.45	0.84	0.79
Tellurium (Te)-Total	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.000019	0.00001	0.00001	0.00001	0.000021	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	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	0.0001
Tin (Sn)-Total	0.0001	0.0001	0.0001	0.0001	0.00033	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Titanium (Ti)-Total	0.00036	0.0003	0.00039	0.00037	0.00063	0.0003	0.0003	0.0003	0.0003	0.00039	0.0003	0.0011	0.00033	0.00037
Tungsten (W)-Total	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	0.0001
Uranium (U)-Total	0.000065	0.000066	0.000061	0.000063	0.000067	0.00001	0.000011	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.000012
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.003	0.003	0.003	0.0038	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Zirconium (Zr)-Total	0.00006	0.00006	0.00006	0.000067	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
Dissolved Metals (Water)														
Aluminum (Al)-Dissolved	0.0315	0.0272	0.0351	0.0360	0.0212	0.005	0.0102	0.0026	0.0042	0.002	0.0021	0.002	0.0022	0.002
Antimony (Sb)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00015	0.0001
Arsenic (As)-Dissolved	0.00017	0.00018	0.00016	0.00016	0.00021	0.00023	0.00023	0.0002	0.0002	0.00021	0.00022	0.00021	0.00020	0.00021
Barium (Ba)-Dissolved	0.00417	0.00427	0.00415	0.00481	0.00426	0.0064	0.00607	0.00634	0.00651	0.00657	0.00622	0.00645	0.00661	0.0062
Beryllium (Be)-Dissolved	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	0.0001
Bismuth (Bi)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	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
Cadmium (Cd)-Dissolved	0.0000149	0.0000131	0.0000050	0.0000207	0.000005	0.0000053	0.00000531	0.000005	0.0000464	0.000013	0.000005	0.0000061	0.0000050	0.0000124
Calcium (Ca)-Dissolved	2.55	2.56	2.60	2.61	2.73	11.9	11.6	11.6	11.8	11.6	11.7	11.7	11.4	11.7
Cesium (Cs)-Dissolved	0.000013	0.000014	0.000012	0.000014	0.000017	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Chromium (Cr)-Dissolved	0.00018	0.00010	0.00012	0.00010	0.0002	0.00013	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Cobalt (Co)-Dissolved	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	0.0001
Copper (Cu)-Dissolved	0.00032	0.00294	0.00031	0.00035	0.00029	0.00105	0.00065	0.00058	0.00094	0.00061	0.00106	0.00058	0.00058	

Table 2 - Surface Water Quality Data

Page4 of 5

Parameters	SL4	SL5	SL5	SL5	SL5	SL6	SL6	SL6	SL6	WL2	WL2	WL2	WL2	BL1
Date	28-May-18	1-Jun-17	13-Aug-17	21-Oct-17	27-May-18	1-Jun-17	13-Aug-17	21-Oct-17	27-May-18	1-Jun-17	13-Aug-17	21-Oct-17	25-May-18	1-Jun-17
Time (hh:mm)	11:13	12:30	14:32	10:00	14:36	11:15	14:56	10:30	13:42	13:25	11:11	11:21	-	15:01
In-Situ														
Temp	16.74	-	22.03	11.1	20.87	-	24.57	11.08	23.1	16.22	21.32	10.01	22.08	15.01
EC (uS/cm)	73	-	54	57	55	-	67	68	72	22	35	33	32	18.92
Dissolved Oxygen (%)	110.2	-	91.7	98.2	100.1	-	100.6	100	103	101.2	89.9	95.8	100.6	28
Dissolved Oxygen (mg/L)	10.7	-	8.02	10.61	8.94	-	8.38	11.15	8.67	9.94	7.97	10.8	8.76	110.5
pH	7.65	-	6.9	7.03	7.4	-	7.07	7.24	7.39	6.31	6.96	7.57	7.28	6.81
ORP	168	-	74.5	234.7	154.5	-	150.5	-	157.7	203.7	168	211.9	134.5	165.2
Depth (m)	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Sulfate (SO4)	2.7	7.90	3.32	3.58	2.74	2.36	2.59	3.46	2.35	1.77	3	2.51	1.6	1.24
Organic / Inorganic Carbon														
Dissolved Organic Carbon	4.9	9.6	10.7	10.5	11.2	8.6	9.1	13.5	10.1	7.6	7.5	7.9	8.8	8.8
Total Organic Carbon	5.1	9.1	11.1	10.9	11.4	8.2	9.3	12	11.2	7.5	8.9	7.7	9	8.8
Total Metals														
Aluminum (Al)-Total	0.0059	0.273	0.0147	0.0169	0.0284	0.0213	0.0249	0.0229	0.0711	0.0382	0.0217	0.0323	0.0589	0.0245
Antimony (Sb)-Total	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	0.0001
Arsenic (As)-Total	0.00024	0.00020	0.00023	0.0002	0.0002	0.00018	0.00025	0.00023	0.0002	0.00025	0.00026	0.00024	0.00026	0.0002
Barium (Ba)-Total	0.0065	0.0113	0.0098	0.0111	0.0108	0.0119	0.00505	0.0148	0.0136	0.00447	0.00402	0.00469	0.00482	0.00458
Beryllium (Be)-Total	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	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	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
Cadmium (Cd)-Total	0.000005	0.0000062	0.0000245	0.000005	0.000005	0.000005	0.000005	0.0000063	0.0000069	0.000005	0.000005	0.000005	0.000005	0.0000089
Calcium (Ca)-Total	11.8	8.61	8.31	8.54	8.16	7.92	5.97	9.87	8.92	4.93	5.5	5.23	4.68	3.69
Cesium (Cs)-Total	0.00001	0.000025	0.00001	0.00001	0.00001	0.00001	0.00003	0.00001	0.000014	0.00001	0.00001	0.00001	0.00001	0.000019
Chromium (Cr)-Total	0.00018	0.00031	0.0002	0.00016	0.00022	0.00018	0.00015	0.00015	0.0003	0.00018	0.00018	0.0002	0.00026	0.00017
Cobalt (Co)-Total	0.0001	0.00061	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Copper (Cu)-Total	0.00062	0.00148	0.00074	0.0006	0.0008	0.00066	0.00066	0.00081	0.00093	0.00077	0.00066	0.00066	0.00076	0.00069
Iron (Fe)-Total	0.014	0.252	0.201	0.322	0.203	0.483	0.43	0.478	0.733	0.093	0.077	0.089	0.133	0.072
Lead (Pb)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.000089	0.00005	0.00005	0.00005	0.000052	0.000067
Lithium (Li)-Total	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
Magnesium (Mg)-Total	1.02	1.00	1.01	1	0.966	0.730	0.759	0.984	0.851	0.584	0.627	0.648	0.619	0.59
Manganese (Mn)-Total	0.000326	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050	0.00050
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.000134	0.000051	0.000061	0.000054	0.000052	0.000111	0.000116	0.000057	0.000056	0.00005	0.00005	0.00005	0.00005	0.00005
Nickel (Ni)-Total	0.0005	0.00166	0.00069	0.0007	0.00076	0.0005	0.0005	0.0005	0.00052	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	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
Potassium (K)-Total	0.587	1.34	1.26	1.54	1.49	1.20	0.331	1.24	1.38	0.393	0.377	0.422	0.43	0.511
Rubidium (Rb)-Total	0.00107	0.00201	0.00177	0.00193	0.00179	0.00184	0.00159	0.00214	0.00211	0.00116	0.00117	0.00126	0.00119	0.00172
Selenium (Se)-Total	0.000057	0.000060	0.000088	0.000091	0.000088	0.00005	0.000082	0.00006	0.000079	0.000075	0.000096	0.000077	0.000111	0.000088
Silicon (Si)-Total	1.44	3.58	3.39	3.79	3.56	1.99	1.72	2.97	2.51	0.93	0.57	0.93	1.11	1.85
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	0.989	1.64	1.44	1.41	1.39	2.26	0.792	2.76	3.02	0.701	0.656	0.705	0.759	1.17
Strontium (Sr)-Total	0.0257	0.0239	0.0235	0.0241	0.022	0.0199	0.0171	0.0242	0.0219	0.0104	0.0114	0.0109	0.0103	0.0108
Sulfur (S)-Total	1.1	2.61	0.84	0.88	1.26	0.70	0.5	0.94	0.88	0.63	0.55	0.5	0.67	0.5
Tellurium (Te)-Total	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	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	0.0001
Tin (Sn)-Total	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	0.0001
Titanium (Ti)-Total	0.0003	0.00040	0.00042	0.00036	0.00039	0.00042	0.00031	0.00075	0.00025	0.00076	0.0003	0.0004	0.00083	0.0003
Tungsten (W)-Total	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	0.0001
Uranium (U)-Total	0.00001	0.000031	0.000013	0.00001	0.000011	0.000017	0.00001	0.000024	0.000027	0.000014	0.000012	0.000013	0.000017	0.000013
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.003	0.0046	0.003	0.003	0.0047	0.003	0.003	0.003	0.0058	0.003	0.003	0.003	0.003	0.003
Zirconium (Zr)-Total	0.00006	0.00006	0.00006	0.00006	0.00006	0.000075	0.00006	0.000065	0.000088	0.00006	0.00006	0.00006	0.00006	0.00006
Dissolved Metals (Water)														
Aluminum (Al)-Dissolved	0.002	0.170	0.0108	0.0105	0.0194	0.0231	0.0192	0.0058	0.0101	0.0202	0.0172	0.0206	0.0399	0.02
Antimony (Sb)-Dissolved	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	0.0001
Arsenic (As)-Dissolved	0.00021	0.00016	0.0002	0.0002	0.00013	0.00016	0.00022	0.0002	0.00014	0.00022	0.00023	0.00021	0.00022	0.00017
Barium (Ba)-Dissolved	0.00599	0.0103	0.0095	0.0106	0.0103	0.0114	0.00533	0.0138	0.0117	0.0042	0.0042	0.00435	0.00483	0.00459
Beryllium (Be)-Dissolved	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	0.0001
Bismuth (Bi)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	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
Cadmium (Cd)-Dissolved	0.000005	0.0000054	0.0000054	0.000005	0.000005	0.000005	0.0000125	0.000005	0.000005	0.000005	0.0000111	0.000005	0.000005	0.000005
Calcium (Ca)-Dissolved	11.5	8.33	8.06	8.71	7.92	7.93	5.8	9.77	8.57	4.81	5.29	5.12	4.64	3.54
Cesium (Cs)-Dissolved	0.00001	0.000025	0.00001	0.00001	0.00001	0.00001	0.000031	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.000019
Chromium (Cr)-Dissolved	0.0001	0.00018	0.00012	0.00013	0.0001	0.00014	0.0001	0.00011	0.00023	0.0001	0.0001	0.00011	0.00015	0.00013
Cobalt (Co)-Dissolved	0.0001	0.00055	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Copper (Cu)-Dissolved	0.00053	0.00138	0.00076	0.0005	0.00065	0.00064	0.00055	0.00066	0.00057	0.00058	0.00082	0.00054	0.00048	0.00055
Iron (Fe)-Dissolved	0.01	0.155	0.143	0.215	0.118	0.449	0.309	0.218	0.248	0.039	0.045	0.043	0.078	0.054

Table 2 - Surface Water Quality Data

Page 5 of 5

Parameters	BL1	BL1	BL1	BL2	BL2	BL4	BL4	BL4	BL4	BEAK1
Date	11-Aug-17	21-Oct-17	27-May-18	11-Aug-17	29-May-18	1-Jun-17	13-Aug-14	20-Oct-17	25-May-18	11-Aug-17
Time (hr:mm)	16:29	11:59	13:13	15:52	-	13:00	10:31	17:01	-	15:15
in-Situ										
Temp	27.7	12.73	22.2	24.24	22.08	15.93	20.11	9.96	22.36	8:09
EC (uS/cm)	29	33	29	29	29	26	30	27	24	-
Dissolved Oxygen (%)	102.9	97.6	109.3	99.7	104.6	94.1	78.2	100	98.1	-
Dissolved Oxygen (mg/L)	8.07	10.27	9.43	8.36	9.1	9.3	7.1	11.7	8.52	-
pH	7.14	7.51	7.47	7	7.44	6.34	7.04	7.29	6.85	-
ORP	173.2	223.3	1138	199.2	205	173.7	226.6	145.5	-	-
Depth (m)	-	-	-	-	-	-	-	-	-	2
Sulfate (SO4)	1.58	1.81	1.21	1.71	1.16	1.37	1.27	2.23	1.04	1.6
Organic / Inorganic Carbon										
Dissolved Organic Carbon	8.5	9.1	8.4	7.5	7.4	9.5	8.4	9.6	11.7	8.3
Total Organic Carbon	8.6	8.9	9	7.7	7.4	9.7	8	9.8	12.2	7.8
Total Metals										
Aluminum (Al)-Total	0.0316	0.139	0.0325	0.0158	0.0267	0.0567	0.0302	0.0704	0.0895	0.0152
Antimony (Sb)-Total	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Arsenic (As)-Total	0.00023	0.00025	0.00022	0.00022	0.0002	0.00030	0.00031	0.00026	0.00029	0.0002
Barium (Ba)-Total	0.00395	0.00658	0.0049	0.00449	0.00487	0.00473	0.00526	0.00481	0.00494	0.00439
Beryllium (Be)-Total	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Bismuth (Bi)-Total	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cadmium (Cd)-Total	0.0000349	0.0000147	0.0000164	0.0000145	0.0000813	0.0000051	0.000005	0.0000109	0.0000083	0.0000054
Calcium (Ca)-Total	3.6	3.8	3.68	3.57	3.65	3.38	4.25	3.9	3.13	3.55
Cesium (Cs)-Total	0.000017	0.000029	0.000016	0.000016	0.000014	0.00001	0.000014	0.000013	0.000017	0.000014
Chromium (Cr)-Total	0.00024	0.00047	0.00029	0.0002	0.00023	0.00031	0.00031	0.00034	0.0004	0.00018
Cobalt (Co)-Total	0.0001	0.00013	0.0001	0.0001	0.0001	0.00011	0.0001	0.0001	0.00014	0.0001
Copper (Cu)-Total	0.00078	0.00097	0.0008	0.00061	0.00066	0.00079	0.00069	0.00076	0.00079	0.00065
Iron (Fe)-Total	0.095	0.514	0.105	0.025	0.101	0.225	0.229	0.278	0.322	0.025
Lead (Pb)-Total	0.000097	0.000155	0.00005	0.00005	0.000082	0.000054	0.00005	0.000074	0.000083	0.00005
Lithium (Li)-Total	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Magnesium (Mg)-Total	0.61	0.689	0.633	0.636	0.592	0.654	0.672	0.656	0.599	0.633
Manganese (Mn)-Total	0.0144	0.0238	0.0137	0.00596	0.0196	0.0211	0.00909	0.0068	0.0288	0.00648
Mercury (Hg)-Total	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Total	0.000055	0.00005	0.00005	0.000056	0.00005	0.00005	0.00005	0.00005	0.00005	0.000055
Nickel (Ni)-Total	0.0005	0.00056	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Potassium (K)-Total	0.522	0.58	0.573	0.53	0.528	0.436	0.367	0.481	0.482	0.519
Rubidium (Rb)-Total	0.00188	0.0021	0.00181	0.00198	0.00201	0.00155	0.00142	0.00157	0.00159	0.00192
Selenium (Se)-Total	0.000076	0.000059	0.00006	0.000085	0.000065	0.000061	0.000085	0.000077	0.00008	0.000067
Silicon (Si)-Total	1.75	1.86	1.83	1.68	1.85	1.04	0.71	1.22	1.32	1.7
Silver (Ag)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	1.23	1.24	1.26	1.28	1.24	0.873	0.833	0.838	0.879	1.21
Strontium (Sr)-Total	0.011	0.0119	0.0109	0.0113	0.0108	0.00962	0.012	0.0109	0.01	0.0113
Sulfur (S)-Total	0.5	0.5	0.56	0.5	0.97	0.5	0.5	0.5	0.5	0.5
Tellurium (Te)-Total	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Tin (Sn)-Total	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Titanium (Ti)-Total	0.00033	0.00533	0.00043	0.0003	0.00042	0.00084	0.00055	0.00114	0.00139	0.0003
Tungsten (W)-Total	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Uranium (U)-Total	0.000012	0.00002	0.00001	0.000013	0.000012	0.000016	0.000015	0.000018	0.00002	0.000012
Vanadium (V)-Total	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.0043	0.0049	0.0034	0.003	0.0056	0.0043	0.003	0.003	0.003	0.003
Zirconium (Zr)-Total	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006	0.00006
Dissolved Metals (Water)										
Aluminum (Al)-Dissolved	0.0164	0.0221	0.0227	0.0125	0.0117	0.0398	0.0201	0.0451	0.0686	0.0111
Antimony (Sb)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Arsenic (As)-Dissolved	0.00019	0.00021	0.00017	0.00019	0.00015	0.00025	0.00026	0.00022	0.00024	0.0002
Barium (Ba)-Dissolved	0.00407	0.0051	0.00464	0.00477	0.00456	0.00481	0.00518	0.00467	0.0052	0.00437
Beryllium (Be)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Bismuth (Bi)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Cadmium (Cd)-Dissolved	0.0000702	0.000005	0.000005	0.0000186	0.000005	0.000005	0.0000065	0.000005	0.000005	0.0000087
Calcium (Ca)-Dissolved	3.41	3.72	3.6	3.52	3.27	3.62	4.11	3.85	2.96	3.41
Cesium (Cs)-Dissolved	0.000016	0.000017	0.000015	0.000014	0.000013	0.000011	0.000013	0.000013	0.000018	0.000014
Chromium (Cr)-Dissolved	0.00013	0.00014	0.00016	0.00012	0.00016	0.00018	0.00024	0.00044	0.00025	0.0002
Cobalt (Co)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.00011	0.0001
Copper (Cu)-Dissolved	0.00073	0.00053	0.0005	0.00054	0.0005	0.00061	0.00061	0.00066	0.00064	0.00086
Iron (Fe)-Dissolved	0.048	0.052	0.063	0.011	0.036	0.14	0.141	0.155	0.219	0.01
Lead (Pb)-Dissolved	0.000119	0.00005	0.00005	0.00005	0.00005	0.000050	0.000053	0.00005	0.000051	0.00005
Lithium (Li)-Dissolved	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Magnesium (Mg)-Dissolved	0.573	0.65	0.57	0.634	0.564	0.598	0.637	0.618	0.594	0.601
Manganese (Mn)-Dissolved	0.00678	0.00356	0.00508	0.00086	0.00282	0.0137	0.00582	0.00288	0.0253	0.00038
Mercury (Hg)-Dissolved	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Dissolved	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005	0.00005
Nickel (Ni)-Dissolved	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Dissolved	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05	0.05
Potassium (K)-Dissolved	0.512	0.553	0.523	0.564	0.527	0.406	0.358	0.45	0.488	0.512
Rubidium (Rb)-Dissolved	0.00183	0.00204	0.00179	0.00181	0.00182	0.00143	0.00131	0.00153	0.00173	0.00185
Selenium (Se)-Dissolved	0.000066	0.000065	0.00005	0.000067	0.00005	0.000089	0.000068	0.000067	0.00005	0.00005
Silicon (Si)-Dissolved	1.63	1.76	1.74	1.64	1.66	1.03	0.608	1.23	1.23	1.56
Silver (Ag)-Dissolved	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Dissolved	1.2	1.25	1.14	1.23	1.14	0.796	0.804	0.805	0.889	1.21
Strontium (Sr)-Dissolved	0.0104	0.0113	0.0103	0.0109	0.0102	0.01020	0.0113	0.0105	0.00954	0.0105
Sulfur (S)-Dissolved	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Tellurium (Te)-Dissolved	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Dissolved	0.00001	0.00001	0.00001	0.000017	0.00001	0.00001	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Tin (Sn)-Dissolved	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
Titanium (Ti)-Dissolved	0.0003	0.0003	0.00038	0.0003	0.0003	0.00038	0.00			

Appendix 4

QA/QC Procedures

QAQC Table 1. Field Blank Samples Analysis

Parameters	MDL	Field Blank	Field Blank	Field Blank	Field Blank
		1-Jun-2017	13-Aug-2017	22-Oct-2017	29-May-2018
Physical Tests					
Conductivity (EC)	3.0	3	3	3	3
Hardness (as CaCO3)	0.50	0.5	0.5	0.5	0.5
pH	0.10	5.59	5.4	5.48	7.12
Total Suspended Solids	1.0	1	1.7	1	1
Total Dissolved Solids	10	10	10	10	10
Anions and Nutrients					
Acidity (as CaCO3)	2.0	2	2	2	2
Alkalinity, Total (as CaCO3)	2.0	2	2	2.4	2
Ammonia, Total (as N)	0.020	0.02	0.02	0.02	0.026
Bromide (Br)	0.10	0.1	0.1	0.1	0.1
Chloride (Cl)	0.10	0.1	0.1	0.1	0.1
Fluoride (F)	0.020	0.02	0.02	0.02	0.02
Nitrate (as N)	0.020	0.02	0.02	0.02	0.02
Nitrite (as N)	0.010	0.01	0.01	0.01	0.01
Total Kjeldahl Nitrogen	0.15	0.25	0.25	0.15	0.15
Total Nitrogen	0.15	0.25	0.25	0.15	0.15
Orthophosphate-Dissolved (as P)	0.0030	0.003	0.003	0.003	0.003
Phosphorus (P)-Total	0.0030	0.003	0.003	0.003	0.003
Sulfate (SO4)	0.30	0.3	0.3	0.3	0.3
Organic / Inorganic Carbon					
Dissolved Organic Carbon	1.0	1	1	1	1
Total Organic Carbon	1.0	1	1	1	1
Total Metals					
Aluminum (Al)-Total	0.0030	0.003	0.003	0.003	0.003
Antimony (Sb)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Arsenic (As)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Barium (Ba)-Total	0.000050	0.00005	0.00005	0.00005	0.0001
Beryllium (Be)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Bismuth (Bi)-Total	0.000050	0.00005	0.00005	0.00005	0.00005
Boron (B)-Total	0.010	0.01	0.01	0.01	0.01
Cadmium (Cd)-Total	0.0000050	0.000005	0.000005	0.000005	0.000005
Calcium (Ca)-Total	0.050	0.05	0.05	0.05	0.05
Cesium (Cs)-Total	0.000010	0.00001	0.00001	0.00001	0.00001
Chromium (Cr)-Total	0.00010	0.0001	0.0001	0.00019	0.00034
Cobalt (Co)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Copper (Cu)-Total	0.00050	0.0005	0.0005	0.0005	0.0005
Iron (Fe)-Total	0.010	0.01	0.01	0.01	0.01
Lead (Pb)-Total	0.000050	0.00005	0.00005	0.00005	0.00005
Lithium (Li)-Total	0.0010	0.001	0.001	0.001	0.001
Magnesium (Mg)-Total	0.0050	0.005	0.005	0.005	0.005
Manganese (Mn)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Mercury (Hg)-Total	0.0000050	0.000005	0.000005	0.000005	0.0000885
Molybdenum (Mo)-Total	0.000050	0.00005	0.00005	0.00005	0.00005
Nickel (Ni)-Total	0.00050	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Total	0.050	0.05	0.05	0.05	0.05
Potassium (K)-Total	0.050	0.05	0.05	0.05	0.05
Rubidium (Rb)-Total	0.00020	0.0002	0.0002	0.0002	0.0002
Selenium (Se)-Total	0.000050	0.00005	0.00005	0.00005	0.00005
Silicon (Si)-Total	0.10	0.1	0.1	0.1	0.1
Silver (Ag)-Total	0.000010	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Total	0.050	0.05	0.05	0.05	0.05
Strontium (Sr)-Total	0.00020	0.0002	0.0002	0.0002	0.0002
Sulfur (S)-Total	0.50	0.5	0.5	0.5	0.5
Tellurium (Te)-Total	0.00020	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Total	0.000010	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Total	0.00010	0.0001	0.0001	0.0001	0.0001
Tin (Sn)-Total	0.00010	0.0001	0.00052	0.0001	0.00029
Titanium (Ti)-Total	0.00030	0.0003	0.0003	0.0003	0.0003
Tungsten (W)-Total	0.00010	0.0001	0.0001	0.0001	0.0001

QAQC Table 1. Field Blank Samples Analysis

Uranium (U)-Total	0.000010	0.00001	0.00001	0.00001	0.00001
Vanadium (V)-Total	0.00050	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Total	0.0030	0.003	0.003	0.003	0.003
Zirconium (Zr)-Total	0.000060	0.00006	0.00006	0.00006	0.00006
Dissolved Metals					
Aluminum (Al)-Dissolved	0.0020	0.002	0.002	0.002	0.002
Antimony (Sb)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Arsenic (As)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Barium (Ba)-Dissolved	0.000050	0.000074	0.000149	0.000052	0.00016
Beryllium (Be)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Bismuth (Bi)-Dissolved	0.000050	0.00005	0.00005	0.00005	0.00005
Boron (B)-Dissolved	0.010	0.01	0.01	0.01	0.01
Cadmium (Cd)-Dissolved	0.0000050	0.000005	0.000005	0.000005	0.000005
Calcium (Ca)-Dissolved	0.050	0.05	0.05	0.05	0.05
Cesium (Cs)-Dissolved	0.000010	0.00001	0.00001	0.00001	0.00001
Chromium (Cr)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Cobalt (Co)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Copper (Cu)-Dissolved	0.00020	0.0002	0.0002	0.0002	0.0002
Iron (Fe)-Dissolved	0.010	0.01	0.01	0.01	0.01
Lead (Pb)-Dissolved	0.000050	0.00005	0.00005	0.00005	0.00005
Lithium (Li)-Dissolved	0.0010	0.001	0.001	0.001	0.001
Magnesium (Mg)-Dissolved	0.0050	0.005	0.005	0.005	0.005
Manganese (Mn)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Mercury (Hg)-Dissolved	0.0000050	0.000005	0.000005	0.000005	0.000005
Molybdenum (Mo)-Dissolved	0.000050	0.00005	0.00005	0.00005	0.00005
Nickel (Ni)-Dissolved	0.00050	0.0005	0.0005	0.0005	0.0005
Phosphorus (P)-Dissolved	0.050	0.05	0.05	0.05	0.05
Potassium (K)-Dissolved	0.050	0.05	0.05	0.05	0.05
Rubidium (Rb)-Dissolved	0.00020	0.0002	0.0002	0.0002	0.0002
Selenium (Se)-Dissolved	0.000050	0.00005	0.00005	0.00005	0.00005
Silicon (Si)-Dissolved	0.050	0.05	0.05	0.058	0.05
Silver (Ag)-Dissolved	0.000010	0.00001	0.00001	0.00001	0.00001
Sodium (Na)-Dissolved	0.050	0.05	0.05	0.05	0.05
Strontium (Sr)-Dissolved	0.00020	0.0002	0.0002	0.0002	0.0002
Sulfur (S)-Dissolved	0.50	0.5	0.5	0.5	0.5
Tellurium (Te)-Dissolved	0.00020	0.0002	0.0002	0.0002	0.0002
Thallium (Tl)-Dissolved	0.000010	0.00001	0.00001	0.00001	0.00001
Thorium (Th)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Tin (Sn)-Dissolved	0.00010	0.0001	0.00043	0.0001	0.00027
Titanium (Ti)-Dissolved	0.00030	0.0003	0.0003	0.0003	0.0003
Tungsten (W)-Dissolved	0.00010	0.0001	0.0001	0.0001	0.0001
Uranium (U)-Dissolved	0.000010	0.00001	0.00001	0.00001	0.00001
Vanadium (V)-Dissolved	0.00050	0.0005	0.0005	0.0005	0.0005
Zinc (Zn)-Dissolved	0.0010	0.001	0.0012	0.001	0.003
Zirconium (Zr)-Dissolved	0.000060	0.00006	0.00006	0.00006	0.00006

Notes:

- Units are mg/L/ unless otherwise stated.
- Red indicates the result exceeds the MDL for that analyte.
- MDL exceedance calculation does not include pH; will always be above the MDL.

QAQC Table 2. Duplicate Sample Analysis

Parameters	MDL	BGL1	BGL1-DUP	RPD %	MDL	TC2	TC2-DUP	RPD %	MDL	TC1	TC1-DUP	RPD %	MDL	TC1	TC1-DUP	RPD %
		1-Jun-2017	1-Jun-2017			13-Aug-2017	13-Aug-2017			21-Oct-2017	21-Oct-2017			26-May-2018	26-May-2018	
Physical Tests																
Conductivity (EC)	3.0	20.5	20.4	0.5	3.0	22.7	22.5	0.9	3.0	30.4	30.0	1.3	3.0	26.0	26.0	0.0
Hardness (as CaCO3)	0.50	5.25	5.32	1.3	0.50	8.48	8.55	0.8	0.50	8.99	8.69	3.4	0.50	7.67	8.16	6.2
pH	0.10	7.07	6.23	-	0.10	6.92	6.85	-	0.10	6.76	6.89	-	0.10	6.76	6.75	0.1
Total Suspended Solids	1.0	<1.0	<1.0	-	1.0	<1.0	1	-	1.0	3.2	2.7	16.9	1.0	1.2	<1.0	-
Total Dissolved Solids	10	26	24	8.0	10	25	19	27.3	10	31	34	9.2	10	23	33	35.7
Anions and Nutrients																
Acidity (as CaCO3)	2.0	3.2	3.8	17.1	2.0	2.4	2.4	-	2.0	2.2	2.1	4.7	2.0	2.1	2.2	4.7
Alkalinity, Total (as CaCO3)	2.0	3.2	3.4	6.1	2.0	8.9	8.3	7.0	2.0	8.0	7.1	11.9	2.0	5.9	5.5	7.0
Ammonia, Total (as N)	0.020	<0.020	<0.020	-	0.020	<0.020	<0.020	-	0.020	<0.020	<0.020	-	0.020	<0.020	0.02	-
Bromide (Br)	0.10	<0.10	<0.10	-	0.10	<0.10	<0.10	-	0.10	<0.10	<0.10	-	0.10	<0.10	<0.10	-
Chloride (Cl)	0.10	1.81	2.11	15.3	0.10	0.28	0.27	3.6	0.10	3.11	3.12	0.3	0.10	2.37	2.34	1.3
Fluoride (F)	0.020	0.035	0.039	10.8	0.020	0.026	0.026	-	0.020	<0.020	<0.020	-	0.020	0.021	0.021	0.0
Nitrate (as N)	0.020	<0.020	<0.020	-	0.020	<0.020	<0.020	-	0.020	<0.020	<0.020	-	0.020	<0.020	<0.020	-
Nitrite (as N)	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-
Total Kjeldahl Nitrogen	0.15	<0.25	<0.25	-	0.15	<0.25	<0.25	-	0.15	0.36	0.32	11.8	0.15	0.29	0.27	7.1
Total Nitrogen	0.15	<0.25	<0.25	-	0.15	<0.25	<0.25	-	0.15	0.36	0.32	11.8	0.15	0.29	0.27	7.1
Orthophosphate-Dissolved	0.0030	<0.0030	<0.0030	-	0.0030	<0.0030	<0.0030	-	0.0030	<0.0030	<0.0030	-	0.0030	<0.0030	<0.0030	-
Phosphorus (P)-Total	0.0030	0.0071	0.0066	7.3	0.0030	0.0041	0.0058	34.3	0.0030	0.0091	0.0090	1.1	0.0030	0.0092	0.0071	25.8
Sulfate (SO4)	0.30	0.97	1.04	7.0	0.30	2.33	2.32	0.4	0.30	2.07	2.02	2.4	0.30	1.12	1.29	14.1
Organic / Inorganic Carbon																
Dissolved Organic Carbon	1.0	10.7	10.3	3.8	1.0	6.1	6.7	9.4	1.0	9.7	9.4	3.1	1.0	10.9	8.9	20.2
Total Organic Carbon	1.0	10.4	10.6	1.9	1.0	5.9	6.3	6.6	1.0	9.5	9.8	3.1	1.0	9.1	8.8	3.4
Total Metals																
Aluminum (Al)-Total	0.0030	0.149	0.142	4.8	0.0030	0.0252	0.0325	25.3	0.0030	0.0737	0.0718	2.6	0.0030	0.0498	0.0475	4.7
Antimony (Sb)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	0.00020	-	0.00010	<0.00010	<0.00010	-
Arsenic (As)-Total	0.00010	0.00029	0.00028	3.5	0.00010	0.00026	0.00023	12.2	0.00010	0.00034	0.00036	5.7	0.00010	0.00025	0.00026	3.9
Barium (Ba)-Total	0.000050	0.00481	0.00474	1.5	0.000050	0.00385	0.00379	1.6	0.000050	0.00498	0.00507	1.8	0.000050	0.00360	0.00362	0.6
Beryllium (Be)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Bismuth (Bi)-Total	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-
Boron (B)-Total	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-	0.010	<0.010	<0.010	-
Cadmium (Cd)-Total	0.000050	0.0000121	0.0000109	10.4	0.000050	0.000056	0.0000354	145.4	0.000050	0.0000701	0.0000124	139.9	0.000050	0.000068	0.0000148	74.1
Calcium (Ca)-Total	0.050	1.32	1.42	7.3	0.050	2.52	2.5	0.8	0.050	2.46	2.47	0.4	0.050	2.28	2.43	6.4
Cesium (Cs)-Total	0.00010	0.00014	0.00014	-	0.00010	0.00018	0.00019	5.4	0.00010	0.00010	0.00012	18.2	0.00010	<0.00010	<0.00010	-
Chromium (Cr)-Total	0.00010	0.00033	0.00034	3.0	0.00010	0.00016	0.00017	6.1	0.00010	0.00028	0.00057	68.2	0.00010	0.00042	0.00040	4.9
Cobalt (Co)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Copper (Cu)-Total	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	<0.00050	-	0.00050	0.00058	<0.00050	-	0.00050	<0.00050	<0.00050	-
Iron (Fe)-Total	0.010	0.300	0.277	8.0	0.010	0.089	0.101	12.6	0.010	0.584	0.575	1.6	0.010	0.358	0.348	2.8
Lead (Pb)-Total	0.00050	0.000109	0.000118	7.9	0.00050	<0.00050	0.000071	-	0.00050	0.000296	0.000300	1.3	0.00050	0.000134	0.000157	15.8
Lithium (Li)-Total	0.0010	<0.0010	<0.0010	-	0.0010	<0.0010	<0.0010	-	0.0010	<0.0010	<0.0010	-	0.0010	<0.0010	<0.0010	-
Magnesium (Mg)-Total	0.0050	0.404	0.377	6.9	0.0050	0.623	0.62	0.5	0.0050	0.644	0.634	1.6	0.0050	0.592	0.595	0.5
Manganese (Mn)-Total	0.00010	0.0104	0.00945	9.6	0.00010	0.0088	0.00909	3.2	0.00010	0.0108	0.0108	0.0	0.00010	0.0080	0.0077	4.3
Mercury (Hg)-Total	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-
Molybdenum (Mo)-Total	0.000050	<0.000050	<0.000050	-	0.000050	0.000079	0.000077	2.6	0.000050	<0.000050	<0.000050	-	0.000050	<0.000050	<0.000050	-
Nickel (Ni)-Total	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	0.00068	-	0.00050	<0.00050	<0.00050	-
Phosphorus (P)-Total	0.0050	<0.0050	<0.0050	-	0.0050	<0.0050	<0.0050	-	0.0050	<0.0050	<0.0050	-	0.0050	<0.0050	<0.0050	-
Potassium (K)-Total	0.050	0.342	0.303	12.1	0.050	0.405	0.407	0.5	0.050	0.428	0.392	8.8	0.050	0.359	0.359	0.0
Rubidium (Rb)-Total	0.00020	0.00115	0.00114	0.9	0.00020	0.00142	0.00133	6.5	0.00020	0.00133	0.00125	6.2	0.00020	0.00109	0.00108	0.9
Selenium (Se)-Total	0.00050	0.000083	0.000071	15.6	0.00050	0.000087	0.000063	32.0	0.00050	0.000055	0.000102	59.9	0.00050	0.000097	0.000091	6.4
Silicon (Si)-Total	0.10	1.46	1.36	7.1	0.10	1.38	1.37	0.7	0.10	1.91	1.95	2.1	0.10	1.67	1.63	2.4
Silver (Ag)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Sodium (Na)-Total	0.050	1.73	1.74	0.6	0.050	0.933	0.925	0.9	0.050	2.65	2.59	2.3	0.050	2.13	2.17	1.9
Strontium (Sr)-Total	0.00020	0.00086	0.00085	8.7	0.00020	0.0121	0.0119	1.7	0.00020	0.0109	0.0109	0.0	0.00020	0.0098	0.0100	1.3
Sulfur (S)-Total	0.50	<0.50	<0.50	-	0.50	0.6	0.57	5.1	0.50	<0.50	<0.50	-	0.50	<0.50	1.08	-
Tellurium (Te)-Total	0.00020	<0.00020	<0.00020	-	0.00020	<0.00020	<0.00020	-	0.00020	<0.00020	<0.00020	-	0.00020	<0.00020	<0.00020	-
Thallium (Tl)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Thorium (Th)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	0.00012	0.00013	8.0	0.00010	<0.00010	<0.00010	-
Tin (Sn)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Titanium (Ti)-Total	0.00030	0.00107	0.00105	-	0.00030	<0.00030	0.00072	-	0.00030	0.00145	0.00157	7.9	0.00030	0.00072	<0.00090	-
Tungsten (W)-Total	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-	0.00010	<0.00010	<0.00010	-
Uranium (U)-Total	0.00010	0.000051	0.000053	3.8	0.00010	0.000088	0.000088	-	0.00010	0.000108	0.000111	2.7	0.00010	0.000076	0.000077	1.3
Vanadium (V)-Total	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	<0.00050	-	0.00050	<0.00050	<0.00050	-
Zinc (Zn)-Total	0.0030	<0.0030	<0.0030	-	0.0030	<0.0030	<0.0030	-	0.0030	0.0051	<0.0030	-	0.0030	<0.0030	<0.0030	-
Zirconium (Zr)-Total	0.00060	0.000131	0.000134	2.3	0.00060	<0.00060	<0.00060	-	0.00060	0.000095	0.000084	12.3	0.00060	0.000082	0.000084	2.4
Dissolved Metals																
Aluminum (Al)-Dissolved	0.0020	0.137	0.142													

Appendix 5

Sample Exceedances at each Site



Table 1. Summary of PWQO aquatic life guideline exceedances for all local watersheds

Watershed	PWQO ²	Bending Lake Watershed											Stormy Lake Watershed							Wapageisi Lake Watershed								
		TC1	TC2	BGL1	BGL2	BGL3	BGL5	BEND 1	BEND2	BEND3	M1	PL1	STORM1	STORM2	STORM3	SL4	SL5	SL6	M2	BL1	BL2	BL4	BEAK1	BEAK2	BEAK3	M3	M4	WL2
Number of Samples		3	3	4	4	4	4	3	2	3	1	2	2	2	2	4	3	3	4	1	4	1	1	1	3	4	3	
Parameters																												
Physical Tests																												
pH (unitless)	6.5-8	-	-	-	-	-	25%	-	-	-	-	-	-	-	-	-	-	-	-	-	25%	-	-	-	-	-	25	
Nutrients																												
Ammonia, Total (as N)	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Total Metals																												
Aluminum (Al)-Total	ph 4.5-5.5: 0.015; ph 5.5-6.5: not exceed 10% above natural background conditions, pH 6.5-9: 0.075	-	-	100%	-	-	-	-	-	-	-	-	-	-	-	25%	-	-	25%	-	25%	-	-	-	-	-	-	
Antimony (Sb)-Total	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Arsenic (As)-Total	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Beryllium (Be)-Total	Hardness <75: 0.011, Hardness >75: 1.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Boron (B)-Total	0.2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cadmium (Cd)-Total	Hardness 0-100: 0.0001, Hardness >100: 0.0005	33%	-	25%	50%	25%	25%	-	-	-	25%	-	-	-	50%	-	-	-	-	-	-	-	-	-	-	-	-	
Chromium (Cr)-Total	CrVI: 0.001, CrIII: 0.0089	-	-	-	25%	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cobalt (Co)-Total	0.0009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Copper (Cu)-Total	Hardness 0-20: 0.001, Hardness >20: 0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25%	
Iron (Fe)-Total	0.3	100%	-	50%	-	25%	-	-	-	-	25%	-	-	-	-	25%	100%	-	25%	-	25%	-	-	100%	33%	-	-	
Lead (Pb)-Total	Alkalinity <30: 0.001, Alkalinity 30-80: 0.03, Alkalinity >80: 0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mercury (Hg)-Total	0.0002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Molybdenum (Mo)-Total	0.04	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Nickel (Ni)-Total	0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Phosphorus (P)-Total	0.02 during ice free period, however can range from 0.01-0.03 depending on natural P levels of lakes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Selenium (Se)-Total	0.1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Silver (Ag)-Total	0.0001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Thallium (Tl)-Total	0.0003	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tungsten (W)-Total	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Uranium (U)-Total	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Vanadium (V)-Total	0.006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Zinc (Zn)-Total	0.02	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Zirconium (Zr)-Total	0.004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

- NOTES**
- Guidelines are presented in mg/L unless otherwise stated
 - Ontario Provincial Water Quality Objectives (PWQO) for freshwater aquatic life
 - Values represent percentages of samples collected at each site that exceed one or more aquatic life guideline
 - The percentage is based on the number of samples that exceed the lowest applicable guideline
 - Guidelines are specific to total concentration only
 - Guideline and laboratory method detection limit for Ammonia (total) equal to 0.02.



Table 2. Summary of CEQG-PAL aquatic life guideline exceedances for all local watersheds

Watershed	CEQG-PAL ²	Bending Lake Watershed							Stormy Lake Watershed					Wapageisi Lake Watershed					
		TC1	TC2	BGL1	BGL2	BGL3	BGL5	IM1	SL4	SL5	SL6	STOMR2	IM2	BL1	BL2	BL4	BEAK3	WL2	IM3
Number of Samples		3	4	4	4	4	4	4	2	4	4	2	4	4	2	4	4	3	3
Parameters																			
Physical Tests																			
pH (unitless)	6.5-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	25%	-	25%	-
Nutrients																			
Chloride (Cl)	120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Fluoride (F)	0.12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrate (as N)	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nitrite (as N)	0.197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Metals																			
Aluminum (Al)-Total	0.005	-	-	100%	-	-	-	-	-	25%	-	-	-	25%	-	25%	-	-	-
Arsenic (As)-Total	0.005	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Boron (B)-Total	1.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Cadmium (Cd)-Total	$\frac{10^{(0.83 \times (\log(H)) - 2.46)}}{1000}$	33%	25%	25%	50%	25%	25%	25%	50%	-	-	50%	-	25%	50%		100%	-	-
Chromium (Cr)-Total	0.0089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Copper (Cu)-Total	$\frac{0.2 \times e^{(0.8545 \times (\ln(H)) - 1.465)}}{1000}$	-	-	-	-	-	-	-	-	25%	-	-	25%	-	-	-	-	-	-
Iron (Fe)-Total	0.3	100%	-	50%	-	25%	-	25%	-	50%	100%	-	-	25%	-	25%	100%	-	33%
Lead (Pb)-Total	$\frac{e^{(1.273 \times (\ln(H)) - 4.705)}}{1000}$	33%	-	-	25%	25%	-	-	-	-	-	-	-	-	-	-	-	-	-
Mercury (Hg)-Total	0.00026	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Molybdenum (Mo)-Total	0.073	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Nickel (Ni)-Total	$\frac{e^{(0.76 \times (\ln(H)) + 1.06)}}{1000}$	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Selenium (Se)-Total	0.001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Silver (Ag)-Total	0.0001	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Thallium (Tl)-Total	0.0008	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Uranium (U)-Total	0.015	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Zinc (Zn)-Total	0.03	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTES

1. Guidelines are presented in mg/L unless otherwise stated
2. Canadian environmental quality guidelines - water quality guidelines for the protection of aquatic life (CEQG-PAL) - Freshwater
3. Values represent percentages of samples collected at each site that exceed one or more aquatic life guideline
4. The percentage is based on the number of samples that exceed the lowest applicable guideline
5. Guidelines are specific to total concentration only

Appendix 6

Historical Data

Historical Data
Table 1 - DST Water Quality Lab Results

Maxxam Job #: B188343
Report Date: 2011/06/30

DST Consulting Engineers Inc
Client Project #: OE-TB-012689
Project name:
Sampler Initials:

ANION SCAN IN WATER (WATER)

Maxxam Job #		B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343
Maxxam ID		JW3274/5	JW3276/7	JW3278/9	JW3280/1	JW3282/3	JW3284/5	JW3286/7	JW3288/9	JW3290/1	JW3292/3	JW3294/5	JW3296	JW3297	
Sampling Date		6/15/2011	6/15/2011	6/15/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/15/2011	
COC Number		266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01
	Units	RDL	SW BK11-1L	SW BK11-2L	SW PL11-1L	SW SL11-1L	SW BC11-1C	SW BL11-2C	SW BL11-1L	SW BL11-2L	SW BL11-3L	SW DP11-1A	SW WH11-1L	TRIP BLANK	FBLK
Alkalinity (Total as CaCO3)	mg/L	1	10	9	22	22	3	23	8	7	7	2	2	<1	2
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	1	10	9	22	21	3	23	8	7	7	2	2	<1	2
Carb. Alkalinity (calc. as CaCO3)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Conductivity	umho	1	31	31	50	54	18	50	25	24	24	18	18	1	12
Dissolved Bromide (Br-)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Chloride (Cl)	mg/L	1	1	1	<1	<1	<1	<1	1	<1	<1	1	1	<1	<1
Dissolved Inorganic Carbon (C)	mg/L	1	2	2	5	4	<1	5	2	2	2	<1	<1	<1	<1
Dissolved Organic Carbon	mg/L	0.2	6.2	6.1	4.4	4.2	7.9	4.2	5.1	5.1	5.3	8.1	9.0	0.2	<0.2
Dissolved Phosphorus	mg/L	0.002	0.014	0.014	0.012	0.016	0.010	0.010	0.013	0.008	0.011	0.014	0.013	0.007	0.008
Dissolved Sulphate (SO4)	mg/L	1	2	1	2	3	<1	2	2	2	2	1	1	<1	<1
Fluoride (F-)	mg/L	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
Hardness (CaCO3)	mg/L	1	12	12	23	23	6	21	10	9	10	5	6	<1	<1
Nitrate (N)	mg/L	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
Nitrate + Nitrite	mg/L	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
Nitrite (N)	mg/L	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
Orthophosphate (P)	mg/L	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
pH	pH		7.07	6.93	7.31	7.15	6.46	7.18	6.83	6.98	6.75	6.36	6.25	5.71	5.50
Total Ammonia-N	mg/L	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
Total Dissolved Solids	mg/L	10	18	18	32	36	12	30	16	16	18	10	14	<10	<10
Total Kjeldahl Nitrogen (TKN)	mg/L	0.1	0.3	0.4	0.4	0.4	0.5	0.4	0.4	0.4	0.3	0.5	0.4	<0.1	0.1
Total Organic Carbon (TOC)	mg/L	0.2	6.5	6.4	5.0	9.7	8.7	4.3	5.5	5.4	5.7	8.8	10.0	<0.2	<0.2
Total Phosphorus	mg/L	0.002	0.015	0.013	0.021	0.023	0.012	0.012	0.012	0.009	0.014	0.012	0.012	0.003	0.003
Total Suspended Solids	mg/L	1	<1	1	<1	3	1	<1	<1	<1	<1	2	<1	1	<1
Turbidity	NTU	N/A	0.54	0.45	1.1	1.2	0.39	0.45	0.55	0.52	0.98	0.56	0.61	0.42	0.5
Metals															
Dissolved (0.2u) Aluminum (Al)	ug/L	5	12	18	<5	20	110	7	23	29	32	120	150	<5	<5
Dissolved Aluminum (Al)	ug/L	5	12	14	<5	22	110	7	27	32	34	120	140	<5	<5
Dissolved Antimony (Sb)	ug/L	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
Dissolved Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Barium (Ba)	ug/L	5	5	5	14	10	5	14	<5	<5	<5	6	<5	<5	<5
Dissolved Beryllium (Be)	ug/L	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
Dissolved Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dissolved Cadmium (Cd)	ug/L	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
Dissolved Calcium (Ca)	ug/L	200	3700	3800	7900	7700	1500	7200	2800	2700	2800	1400	1600	<200	<200
Dissolved Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Cobalt (Co)	ug/L	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
Dissolved Copper (Cu)	ug/L	1	<1	1	1	2	<1	1	<1	1	<1	<1	<1	<1	<1
Dissolved Iron (Fe)	ug/L	100	<100	<100	<100	120	200	<100	<100	<100	<100	200	190	<100	<100
Dissolved Lead (Pb)	ug/L	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
Dissolved Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Magnesium (Mg)	ug/L	50	600	630	760	880	450	720	600	600	620	450	430	<50	<50
Dissolved Manganese (Mn)	ug/L	2	<2	<2	<2	27	9	53	<2	<2	<2	9	13	<2	<2
Dissolved Mercury (Hg)	ug/L	0.01	0.03	0.08	0.07	<0.01	0.04	<0.01	0.03	0.18	0.11	0.05	0.03		
Dissolved Molybdenum (Mo)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Nickel (Ni)	ug/L	1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Historical Data
Table 1 - DST Water Quality Lab Results

ANION SCAN IN WATER (WATER)

Maxxam Job #			B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343	B188343
Maxxam ID			JW3274/5	JW3276/7	JW3278/9	JW3280/1	JW3282/3	JW3284/5	JW3286/7	JW3288/9	JW3290/1	JW3292/3	JW3294/5	JW3296	JW3297
Sampling Date			6/15/2011	6/15/2011	6/15/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/14/2011	6/15/2011
COC Number			266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01	266778-01-01
	Units	RDL	SW BK11-1L	SW BK11-2L	SW PL11-1L	SW SL11-1L	SW BC11-1C	SW BL11-2C	SW BL11-1L	SW BL11-2L	SW BL11-3L	SW DP11-1A	SW WH11-1L	TRIP BLANK	FBLK
Dissolved Potassium (K)	ug/L	200	560	580	1200	1400	460	1100	440	420	440	440	420	<200	<200
Dissolved Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Silicon (Si)	ug/L	50	1700	1600	2200	3000	940	2200	1400	1500	1500	920	1300	<50	<50
Dissolved Silver (Ag)	ug/L	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
Dissolved Sodium (Na)	ug/L	100	1100	1200	900	1300	1100	870	910	940	940	1100	1300	<100	<100
Dissolved Strontium (Sr)	ug/L	1	11	11	18	20	9	19	12	11	12	9	9	<1	1
Dissolved Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Thallium (Tl)	ug/L	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
Dissolved Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Uranium (U)	ug/L	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
Dissolved Vanadium (V)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Zinc (Zn)	ug/L	5	<5	9	<5	6	<5	8	<5	<5	<5	<5	<5	<5	<5
Dissolved Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (VI)	ug/L	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
Total Aluminum (Al)	ug/L	5	21	19	7	30	130	9	41	46	47	140	170	<5	<5
Total Antimony (Sb)	ug/L	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
Total Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Barium (Ba)	ug/L	5	5	<5	13	11	6	15	<5	<5	<5	6	<5	<5	<5
Total Beryllium (Be)	ug/L	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
Total Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Cadmium (Cd)	ug/L	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
Total Calcium (Ca)	ug/L	200	3700	3700	7800	8500	1400	7300	2900	2600	2800	1500	49000	<200	<200
Total Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Cobalt (Co)	ug/L	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
Total Copper (Cu)	ug/L	1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	2	<1	<1
Total Iron (Fe)	ug/L	100	<100	<100	<100	210	300	<100	<100	<100	<100	280	290	<100	<100
Total Lead (Pb)	ug/L	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
Total Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Magnesium (Mg)	ug/L	50	650	600	740	970	460	740	670	630	640	470	440	<50	<50
Total Manganese (Mn)	ug/L	2	6	5	6	44	19	62	6	5	5	20	15	<2	<2
Total Mercury (Hg)	ug/L	0.05	1.34	0.54	0.39	<0.01	0.44	<0.01	0.02	0.15	0.07	0.66	0.54	<0.01	<0.01
Total Molybdenum (Mo)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Nickel (Ni)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1
Total Potassium (K)	ug/L	200	580	580	1300	1700	480	1200	460	450	460	490	450	<200	<200
Total Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Silicon (Si)	ug/L	50	1700	1500	2200	3300	980	2200	1400	1600	1600	960	1300	<50	<50
Total Silver (Ag)	ug/L	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
Total Sodium (Na)	ug/L	100	1300	1200	930	1400	1200	930	1000	940	1000	1300	1300	<100	<100
Total Strontium (Sr)	ug/L	1	12	12	19	22	10	20	13	12	12	9	9	<1	<1
Total Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Thallium (Tl)	ug/L	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
Total Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Uranium (U)	ug/L	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
Total Vanadium (V)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Zinc (Zn)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Historical Data
Table 1 - DST Water Quality Lab Results

Maxxam Job #: B1C7045
Report Date: 2011/08/31

ANION SCAN IN WATER (WATER)

Maxxam Job #			B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045
Maxxam ID			KP7445	KP7447	KP7449	KP7451	KP7453	KP7455	KP7457	KP7459	KP7461	KP7463	KP7465	KP7467	KP7469	KP7471	KP7473	KP7475	KP7477	KP7479	KP7480
Sampling Date			8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011
COC Number			275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01	275507-04-01
	Units	RDL	SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND	FDBLK	TRBLK
Inorganics																					
Alkalinity (Total as CaCO3)	mg/L	1	10	9	10	11	9	10	9	9	9	22	7	7	7	7	7	7	7	<1	<1
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	1	10	9	10	11	9	10	9	9	9	22	7	7	7	7	7	7	7	<1	<1
Carb. Alkalinity (calc. as CaCO3)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Conductivity	umho/cm	1	31	31	32	31	31	32	31	31	31	49	24	24	24	24	24	24	24	1	1
Dissolved Bromide (Br-)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Chloride (Cl)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Inorganic Carbon (C)	mg/L	1	<1	<1	<1	<1	<1	3	<1	<1	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1
Dissolved Organic Carbon	mg/L	0.2	6.3	6.3	5.6	6.4	6.4	5.9	6.4	6.3	5.4	4.3	4.8	4.7	4.8	4.6	4.7	4.7	4.6	<0.2	<0.2
Dissolved Phosphorus	mg/L	0.002	0.004	<0.002	0.002	0.003	0.003	0.002	0.006	0.002	0.003	0.003	0.002	<0.002	0.002	0.003	0.003	<0.002	0.003	0.003	0.002
Dissolved Sulphate (SO4)	mg/L	1	2	2	2	1	1	1	1	1	2	<1	2	2	2	2	2	2	2	<1	<1
Fluoride (F-)	mg/L	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
Hardness (CaCO3)	mg/L	1	12	12	12	11	12	12	11	11	12	21	9	9	9	9	9	9	9	<1	<1
Nitrate (N)	mg/L	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
Nitrate + Nitrite	mg/L	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
Nitrite (N)	mg/L	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
Orthophosphate (P)	mg/L	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
pH	pH		6.78	6.55	6.50	7.05	6.49	6.39	6.57	6.58	6.34	6.65	6.44	6.47	6.45	6.46	6.39	6.47	6.39	5.78	5.57
Total Ammonia-N	mg/L	0.05	0.62	0.11	0.17	<0.05	0.37	<0.05	0.07	<0.05	0.58	<0.05	<0.05	<0.05	0.13	<0.05	0.34	0.20	<0.05	<0.05	<0.05
Total Dissolved Solids	mg/L	10	20	22	24	20	20	22	22	20	24	36	14	18	16	14	14	18	18	<10	<10
Total Kjeldahl Nitrogen (TKN)	mg/L	0.2	0.9	0.6	0.6	1.0	0.9	0.6	0.8	0.5	0.9	0.5	0.4	<0.5 (1)	0.6	0.3	0.6	0.6	0.4	<0.1	0.1
Total Organic Carbon (TOC)	mg/L	0.2	6.5	6.4	5.8	6.7	6.7	6.0	6.6	6.5	5.5	4.3	4.9	4.8	4.8	4.5	4.5	4.8	4.5	<0.2	<0.2
Total Phosphorus	mg/L	0.002	0.003	0.004	0.006	0.009	0.009	0.006	0.003	0.004	0.006	0.004	0.002	0.002	<0.002	0.002	0.002	0.002	0.002	<0.002	<0.002
Total Suspended Solids	mg/L	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1
Turbidity	NTU	0.2	1.0	0.7	0.7	0.8	0.6	1.0	0.8	0.7	0.5	0.4	0.5	0.4	0.5	0.5	0.4	0.5	0.4	<0.2	<0.2
Metals																					
Dissolved (0.2u) Aluminum (Al)	ug/L	5	9	9	12	9	11	12	9	9	14	<5	15	15	15	14	14	16	14	<5	<5
Dissolved Aluminum (Al)	ug/L	5	8	8	11	12	9	12	9	9	12	<5	15	15	15	17	14	17	15	<5	<5
Dissolved Antimony (Sb)	ug/L	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
Dissolved Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Barium (Ba)	ug/L	2	5	4	5	4	5	6	4	4	6	12	4	4	4	4	4	4	4	<2	<2
Dissolved Beryllium (Be)	ug/L	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
Dissolved Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dissolved Cadmium (Cd)	ug/L	0.1	0.2	<0.1	0.1	0.2	0.4	0.2	<0.1	0.1	<0.1	0.1	0.4	0.3	0.2	<0.1	<0.1	0.5	<0.1	<0.1	<0.1
Dissolved Calcium (Ca)	ug/L	200	3700	3700	3800	3600	3700	3700	3500	3500	3600	7200	2600	2600	2500	2600	2600	2600	2600	<200	<200
Dissolved Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Cobalt (Co)	ug/L	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
Dissolved Copper (Cu)	ug/L	1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Iron (Fe)	ug/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Dissolved Lead (Pb)	ug/L	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
Dissolved Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Magnesium (Mg)	ug/L	50	580	590	590	580	570	590	590	590	590	670	540	570	580	590	570	550	580	<50	<50
Dissolved Manganese (Mn)	ug/L	2	<2	<2	6	<2	<2	33	<2	<2	<2	5	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Mercury (Hg)	ug/L	0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.14	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
Dissolved Molybdenum (Mo)	ug/L	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
Dissolved Nickel (Ni)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Historical Data
Table 1 - DST Water Quality Lab Results

cont'd		ANION SCAN IN WATER (WATER)																			
Maxxam Job #		B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045
Maxxam ID		KP7445	KP7447	KP7449	KP7451	KP7453	KP7455	KP7457	KP7459	KP7461	KP7463	KP7465	KP7467	KP7469	KP7471	KP7473	KP7475	KP7477	KP7479	KP7480	
Sampling Date		8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	
COC Number		275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	
	Units	RDL	SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND	FDBLK	TRBLK
Dissolved Potassium (K)	ug/L	200	590	580	630	600	610	620	590	590	620	1200	460	430	420	430	460	410	<200	<200	
Dissolved Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	
Dissolved Silicon (Si)	ug/L	50	1400	1400	1700	1400	1400	1700	1400	1400	2000	2100	1200	1200	1200	1200	1100	1200	1200	<50	<50
Dissolved Silver (Ag)	ug/L	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
Dissolved Sodium (Na)	ug/L	100	1200	1100	1100	1100	1200	1100	1100	1100	1100	850	900	930	910	970	900	930	920	<100	<100
Dissolved Strontium (Sr)	ug/L	1	12	11	11	11	11	11	11	10	11	17	11	11	11	11	11	11	11	<1	<1
Dissolved Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Thallium (Tl)	ug/L	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
Dissolved Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Uranium (U)	ug/L	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
Dissolved Vanadium (V)	ug/L	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
Dissolved Zinc (Zn)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	6	<5
Dissolved Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (VI)	ug/L	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
Total Aluminum (Al)	ug/L	5	19	16	24	18	15	22	19	17	26	9	26	40	28	25	27	31	25	<5	<5
Total Antimony (Sb)	ug/L	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
Total Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Barium (Ba)	ug/L	2	5	5	6	5	5	6	5	5	6	13	4	5	4	4	4	4	4	<2	<2
Total Beryllium (Be)	ug/L	0.5	<0.5	<0.5	0.6	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Cadmium (Cd)	ug/L	0.1	<0.1	<0.1	0.3	<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
Total Calcium (Ca)	ug/L	200	3500	3400	3600	3500	3500	3500	3600	3500	3700	7000	2400	2600	2500	2600	2600	2600	2400	<200	<200
Total Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Cobalt (Co)	ug/L	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
Total Copper (Cu)	ug/L	1	<1	1	2	<1	1	<1	1	2	1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1
Total Iron (Fe)	ug/L	100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100	<100
Total Lead (Pb)	ug/L	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
Total Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Magnesium (Mg)	ug/L	50	610	600	660	600	620	650	620	640	720	620	620	620	640	640	640	640	610	<50	<50
Total Manganese (Mn)	ug/L	2	8	9	29	9	9	68	8	8	15	34	8	8	9	6	7	7	6	<2	<2
Total Mercury (Hg)	ug/L	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
Total Molybdenum (Mo)	ug/L	0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	1.2	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Total Nickel (Ni)	ug/L	1	<1	1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Potassium (K)	ug/L	200	560	550	610	560	570	590	590	600	610	1200	420	420	430	430	420	450	400	<200	<200
Total Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Silicon (Si)	ug/L	50	1500	1400	1900	1400	1500	1900	1500	1500	2100	2200	1200	1300	1300	1300	1400	1200	1200	<50	<50
Total Silver (Ag)	ug/L	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
Total Sodium (Na)	ug/L	100	1200	1100	1200	1100	1200	1100	1200	1200	1200	910	950	950	960	1000	990	990	930	<100	<100
Total Strontium (Sr)	ug/L	1	11	11	12	11	12	11	11	11	12	19	12	12	12	12	13	12	12	<1	<1
Total Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Thallium (Tl)	ug/L	0.05	<0.05	<0.05	0.15	<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
Total Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Historical Data
Table 1 - DST Water Quality Lab Results

cont'd		ANION SCAN IN WATER (WATER)																			
Maxxam Job #			B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045
Maxxam ID			KP7445	KP7447	KP7449	KP7451	KP7453	KP7455	KP7457	KP7459	KP7461	KP7463	KP7465	KP7467	KP7469	KP7471	KP7473	KP7475	KP7477	KP7479	KP7480
Sampling Date			8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/16/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011	8/17/2011
COC Number			275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01
	Units	RDL	SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND	FDBLK	TRBLK
Total Uranium (U)	ug/L	0.1	<0.1	<0.1	0.3	<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
Total Vanadium (V)	ug/L	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
Total Zinc (Zn)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1

Historical Data
Table 1 - DST Water Quality Lab Results

Maxxam Job #: B1C7045
Report Date: 2011/08/31

ANION SCAN IN WATER (WATER)

Maxxam Job #			B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1E9327	B1E9327	B1E9327	B1E9327
Maxxam ID			KP7481	KP7483	KP7485	KP7487	KP7489	KP7491	KP7493	KP7495	KP7497	KP7499	KP7501	KP7503	LA9877	LA9879	LA9881	LA9883
Sampling Date			8/17/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	9/23/2011	9/23/2011	9/23/2011	9/23/2011
COC Number			275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275368-01-01	275368-01-01	275368-01-01	275368-01-01
	Units	RDL	SW-SL11-1L	SW BL11-1L TOP	SW BL11-1L MID	SW BL11-1L BOT	SW BL11-1L AND	SW BL11-1C	SW PL11-1L TOP	SW PL11-1L MID	SW PL11-1L BOT	WH11-1L TOP	WH11-1L MID	WH11-1L BOT	SW-T1-11-3L BOT	SW-T1-11-4L	SW-T1-11-4L TOP	SW-T1-11-3L TOP
Inorganics																		
Alkalinity (Total as CaCO3)	mg/L	1	21	7	8	8	9	3	23	22	24	3	3	3	24	11	4	24
Bicarb. Alkalinity (calc. as CaCO3)	mg/L	1	21	7	8	8	9	3	23	22	24	3	3	3	24	11	4	24
Carb. Alkalinity (calc. as CaCO3)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Conductivity	umho/cm	1	53	25	25	24	25	18	50	50	52	18	18	19	54	35	16	54
Dissolved Bromide (Br-)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Chloride (Cl)	mg/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Inorganic Carbon (C)	mg/L	1	4	2	<1	2	2	<1	5	5	5	<1	<1	<1	4	1	<1	4
Dissolved Organic Carbon	mg/L	0.2	9.1	4.8	4.7	5.0	4.9	7.7	4.6	4.6	4.0	8.3	8.4	8.4	11.2	25.6	10.0	9.4
Dissolved Phosphorus	mg/L	0.002	0.005	0.003	<0.002	0.004	0.003	0.005	0.004	0.003	0.003	0.003	0.003	0.003	<0.002	0.014	<0.002	0.003
Dissolved Sulphate (SO4)	mg/L	1	3	2	2	2	3	2	2	2	2	<1	1	1	1	1	1	3
Fluoride (F-)	mg/L	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
Hardness (CaCO3)	mg/L	1	22	9	9	9	9	5	20	19	21	5	5	5	25	18	6	26
Nitrate (N)	mg/L	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
Nitrate + Nitrite	mg/L	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
Nitrite (N)	mg/L	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
Orthophosphate (P)	mg/L	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
pH	pH		6.70	6.42	6.47	6.39	6.73	6.22	6.76	6.85	6.71	6.16	6.28	6.08	7.42	7.02	6.67	7.42
Total Ammonia-N	mg/L	0.05	0.35	0.63	0.37	<0.05	<0.05	<0.05	<0.05	<0.05	0.46	0.46	0.14	0.71	<0.05	0.80	0.36	<0.05
Total Dissolved Solids	mg/L	10	40	18	20	16	14	10	38	34	38	10	18	10	46	32	16	30
Total Kjeldahl Nitrogen (TKN)	mg/L	0.2	1.1	0.9	0.7	0.5	0.5	0.4	<0.5 (1)	0.6	1.1	1.0	0.9	2	0.6	2	0.9	0.7
Total Organic Carbon (TOC)	mg/L	0.2	9.6	5.0	4.7	4.9	5.0	7.8	4.7	4.9	4.2	8.5	8.4	8.6	9.4	21.1	8.2	9.6
Total Phosphorus	mg/L	0.002	0.016	0.003	0.003	0.003	0.003	0.005	0.003	0.005	0.007	0.004	0.004	0.005	0.021	0.023	0.025	0.013
Total Suspended Solids	mg/L	1	<1	<1	<1	<1	<1	<1	1	1	2	<1	<1	1	<1	3	3	<1
Turbidity	NTU	0.2	2.5	0.5	0.8	0.6	0.5	0.6	0.4	0.8	1.3	1.0	0.8	1.0	2.2	3.9	1.6	1.8
Metals																		
Dissolved (0.2u) Aluminum (Al)	ug/L	5	7	14	14	19	14	88	<5	<5	<5	99	98	110	8	130	9	9
Dissolved Aluminum (Al)	ug/L	5	7	14	15	20	14	81	<5	<5	<5	93	89	120	10	150	10	10
Dissolved Antimony (Sb)	ug/L	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	0.8	<0.5	<0.5
Dissolved Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Barium (Ba)	ug/L	2	9	4	4	4	4	4	11	10	17	3	3	4	6	6	4	6
Dissolved Beryllium (Be)	ug/L	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
Dissolved Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	11	<10	<10
Dissolved Cadmium (Cd)	ug/L	0.1	<0.1	<0.1	<0.1	0.4	<0.1	<0.1	0.3	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.7	<0.1	<0.1
Dissolved Calcium (Ca)	ug/L	200	7400	2600	2500	2600	2600	1400	7000	6600	7400	1300	1300	1500	9000	5900	1500	9100
Dissolved Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Cobalt (Co)	ug/L	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
Dissolved Copper (Cu)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	2	<1	1
Dissolved Iron (Fe)	ug/L	100	<100	<100	<100	<100	<100	210	<100	<100	<100	<100	<100	190	120	900	<100	<100
Dissolved Lead (Pb)	ug/L	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	<0.5	<0.5

Historical Data
Table 1 - DST Water Quality Lab Results

cont'd		ANION SCAN IN WATER (WATER)																
Maxxam Job #			B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1E9327	B1E9327	B1E9327	B1E9327
Maxxam ID			KP7481	KP7483	KP7485	KP7487	KP7489	KP7491	KP7493	KP7495	KP7497	KP7499	KP7501	KP7503	LA9877	LA9879	LA9881	LA9883
Sampling Date			8/17/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	9/23/2011	9/23/2011	9/23/2011	9/23/2011
COC Number			275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275368-01-01	275368-01-01	275368-01-01	275368-01-01
	Units	RDL	SW-SL11-1L	SW BL11-1L TOP	SW BL11-1L MID	SW BL11-1L BOT	SW BL11-1L AND	SW BL11-1C	SW PL11-1L TOP	SW PL11-1L MID	SW PL11-1L BOT	SW WH11-1L TOP	SW WH11-1L MID	SW WH11-1L BOT	SW-T1-11-3L BOT	SW-T1-11-4L	SW-T1-11-4L TOP	SW-T1-11-3L TOP
Dissolved Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Magnesium (Mg)	ug/L	50	850	590	580	560	580	440	700	640	720	420	410	430	710	750	510	710
Dissolved Manganese (Mn)	ug/L	2	17	<2	<2	3	<2	20	<2	<2	85	4	5	34	<2	12	<2	<2
Dissolved Mercury (Hg)	ug/L	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	0.05	0.08	0.12	0.19
Dissolved Molybdenum (Mo)	ug/L	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
Dissolved Nickel (Ni)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Potassium (K)	ug/L	200	1400	430	420	470	440	430	1100	1000	1100	400	420	440	440	600	240	440
Dissolved Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Dissolved Silicon (Si)	ug/L	50	2600	1100	1200	1300	1200	1000	2000	1800	2400	810	800	980	1200	3800	450	1200
Dissolved Silver (Ag)	ug/L	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
Dissolved Sodium (Na)	ug/L	100	1300	920	900	960	930	1100	880	780	860	1300	1200	1300	730	930	680	750
Dissolved Strontium (Sr)	ug/L	1	19	11	11	11	11	8	17	16	18	8	8	9	15	14	7	15
Dissolved Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Thallium (Tl)	ug/L	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
Dissolved Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2				
Dissolved Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Uranium (U)	ug/L	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
Dissolved Vanadium (V)	ug/L	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
Dissolved Zinc (Zn)	ug/L	5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	10	<5	<5	10	<5	<5
Dissolved Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Chromium (VI)	ug/L	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
Total Aluminum (Al)	ug/L	5	50	27	29	35	28	100	6	10	9	130	120	150	43	220	36	20
Total Antimony (Sb)	ug/L	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
Total Arsenic (As)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Barium (Ba)	ug/L	2	12	5	5	5	4	12	5	13	14	19	4	4	7	7	5	7
Total Beryllium (Be)	ug/L	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
Total Bismuth (Bi)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1
Total Boron (B)	ug/L	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Total Cadmium (Cd)	ug/L	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	0.2	<0.1	<0.1
Total Calcium (Ca)	ug/L	200	7300	2700	2700	2600	2700	1300	7200	7200	7400	1400	1300	1500	9400	5700	1500	9200
Total Chromium (Cr)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Cobalt (Co)	ug/L	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
Total Copper (Cu)	ug/L	1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	1	<1
Total Iron (Fe)	ug/L	100	280	<100	<100	<100	<100	330	<100	<100	130	180	170	440	240	1800	100	170
Total Lead (Pb)	ug/L	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
Total Lithium (Li)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Magnesium (Mg)	ug/L	50	880	660	660	610	660	470	770	770	780	450	430	470	750	760	530	690
Total Manganese (Mn)	ug/L	2	69	7	7	10	7	28	14	15	110	10	10	41	44	21	18	41
Total Mercury (Hg)	ug/L	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	0.04	0.02	0.08	0.07
Total Molybdenum (Mo)	ug/L	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
Total Nickel (Ni)	ug/L	1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	2	<1	<1
Total Potassium (K)	ug/L	200	1400	450	460	440	450	410	1200	1200	1200	430	420	430	460	470	260	420
Total Selenium (Se)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2
Total Silicon (Si)	ug/L	50	2900	1300	1300	1400	1400	1100	2200	2100	2600	930	860	1100	1400	3800	480	1300
Total Silver (Ag)	ug/L	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

Historical Data
Table 1 - DST Water Quality Lab Results

cont'd		ANION SCAN IN WATER (WATER)																
Maxxam Job #			B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1C7045	B1E9327	B1E9327	B1E9327	B1E9327
Maxxam ID			KP7481	KP7483	KP7485	KP7487	KP7489	KP7491	KP7493	KP7495	KP7497	KP7499	KP7501	KP7503	LA9877	LA9879	LA9881	LA9883
Sampling Date			8/17/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	8/18/2011	9/23/2011	9/23/2011	9/23/2011	9/23/2011
COC Number			275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275307-04-01	275368-01-01	275368-01-01	275368-01-01	275368-01-01
	Units	RDL	SW-SL11-1L	SW BL11-1L TOP	SW BL11-1L MID	SW BL11-1L BOT	SW BL11-1L AND	SW BL11-1C	SW PL11-1L TOP	SW PL11-1L MID	SW PL11-1L BOT	SW WH11-1L TOP	SW WH11-1L MID	SW WH11-1L BOT	SW-T1-11-3L BOT	SW-T1-11-4L	SW-T1-11-4L TOP	SW-T1-11-3L TOP
Total Sodium (Na)	ug/L	100	1300	1000	1000	970	1000	1100	920	930	910	1400	1300	1400	770	790	660	670
Total Strontium (Sr)	ug/L	1	21	13	12	12	12	9	19	19	19	9	8	9	16	16	8	16
Total Tellurium (Te)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Thallium (Tl)	ug/L	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
Total Thorium (Th)	ug/L	2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2	<2				
Total Tin (Sn)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Titanium (Ti)	ug/L	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Tungsten (W)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Total Uranium (U)	ug/L	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
Total Vanadium (V)	ug/L	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	0.9	<0.5	<0.5
Total Zinc (Zn)	ug/L	5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Total Zirconium (Zr)	ug/L	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

GENERAL COMMENTS

Hg Analysis: Sample was decanted prior to extraction as per client request.
 Sample LA9877-01: Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.
 Sample LA9879-01: Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

The re-analysis confirmed that the result for dissolved cadmium was higher than the result for total cadmium.
 Sample LA9881-01: Total Organic Carbon < Dissolved Organic Carbon: Both values fall within acceptable RPD limits for duplicates and are likely equivalent.

Historical Data
Table 2 - DST Water Quality Lab Results

Parameter	PWQO Guidelines (ug/L)	RDL	February 2009														
			SW-SR1 - SW-SR6						SW-BL1 - SW-BL6					SW-SR22	SW-BL55	FIELD BLANK	TRIP BLANK
			SW-SR1	SW-SR2	SW-SR3	SW-SR4	SW-SR5	SW-SR6	SW-BL1	SW-BL2	SW-BL3	SW-BL5	SW-BL6	SW-SR22	SW-BL55	FIELD BLANK	TRIP BLANK
Dissolved (0.2u) Aluminum (Al)		5	37	43	16	12	<5	18	100	25	20	6	140	31	6	<5	<5
Chromium (VI)																	
Mercury (Hg)	0.026	0.01	0.03	0.02	0.03	<0.02	<0.02	0.05	0.02	0.02	0.07	<0.02	0.03	0.02	<0.02	<0.02	<0.02
Dissolved Aluminum (Al)	75	5	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00
Dissolved Antimony (Sb)	0	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
Dissolved Arsenic (As)	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Barium (Ba)	0	5	10	9	24	<5	13	6	5	<5	<5	<5	6	9	<5	<5	<5
Dissolved Beryllium (Be)	0	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
Dissolved Bismuth (Bi)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Boron (B)	1500	10	44	42	45	20	10	10	10	10	10	10	10	40	10	10	10
Dissolved Cadmium (Cd)	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
Dissolved Calcium (Ca)	0	200	260000	270000	73000	62000	43000	8700	2500	3000	3100	3800	1700	270000	4100	<200	<200
Dissolved Chromium (Cr)	8.9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Dissolved Cobalt (Co)	0	0.5	2.3	2.3	<0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	2.3	<0.5	<0.5	<0.5
Dissolved Copper (Cu)	1.185	1	1	1	4	2	1	5	2	5	1	1	1	1	1	1	1
Dissolved Iron (Fe)	300	100	100	100	100	100	100	140	150	100	100	100	350	100	100	100	100
Dissolved Lead (Pb)	1	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
Dissolved Lithium (Li)	0	5	36	37	6	25	25	<5	<5	<5	<5	<5	<5	36	<5	<5	<5
Dissolved Magnesium (Mg)	0	50	160000	170000	39000	21000	7100	2000	640	740	730	630	500	170000	740	<50	<50
Dissolved Manganese (Mn)	50	2	240	240	2	1400	1700	3	3	2	2	2	15	240	2	2	2
Dissolved Molybdenum (Mo)	73	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Nickel (Ni)	22.604	1	30	30	3	23	4	1	1	1	1	1	1	31	1	1	1
Dissolved Potassium (K)	0	200	5500	5600	3500	1900	1600	530	560	530	440	520	260	5500	620	<200	<200
Dissolved Selenium (Se)	15	2	6	7	2	2	2	2	2	2	2	2	2	6	2	2	2
Dissolved Silicon (Si)	0	50	2900	2800	870	2500	1500	2200	1900	1600	1600	1600	1500	2800	1600	64	200
Dissolved Silver (Ag)	0.25	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
Dissolved Sodium (Na)	0	100	18000	18000	8000	1900	1100	1700	1300	1300	1100	1100	1200	18000	1300	<100	<100
Dissolved Strontium (Sr)	0	1	1200	1300	480	170	110	20	11	13	13	12	10	1200	12	<1	<1
Dissolved Tellurium (Te)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Thallium (Tl)	0.8	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
Dissolved Tin (Sn)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Titanium (Ti)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Tungsten (W)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Uranium (U)	15	0.1	1.2	1.2	2.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	1.2	0.1	0.1	0.1
Dissolved Vanadium (V)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Zinc (Zn)	30	5	5	5	5	9	5	5	9	5	5	5	5	5	5	5	5
Dissolved Zirconium (Zr)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

Total Aluminum (Al)	75
Total Cadmium (Cd)	0.02
Total Copper (Cu)	1.185
Total Iron (Fe)	300
Total Manganese (Mn)	50
Total Mercury (Hg)	0.026

Notes:

- a) BK = Beak Lake (Wapageisi Lake Watershed)
- BL = Bending Lake (Bending Lake Watershed)
- SL11 = SL 5 = Unnamed (Wabigoon Lake Watershed)
- BC = Bending Creek (Bending Lake Watershed)
- PL = Page Lake (Bending Lake Watershed)
- WH = West Hawk L = BGL1 (Bending Lake Watershed)
- b) Cells shaded red indicate exceedances of PWQO standards for that analyte

Historical Data
Table 2 - DST Water Quality Lab Results

Parameter	PWQO Guidelines (ug/L)	RDL	Q2												15th June 2011	
			15th June 2011						14th June 2011						15th June 2011	
			SW BK11-1L	SW BK11-2L	SW PL11-1L	SW SL11-1L	SW BC11-1C	SW SW2C	SW BL11-1L	SW BL11-2L	SW BL11-3L	SW DP11-1A	SW WH11-1L	TRIP BLANK	FBLK	
			12	18	<5	20	110	7	23	29	32	120	150	<5	<5	
Dissolved (0.2u) Aluminum (Al)		5	12	18	<5	20	110	7	23	29	32	120	150	<5	<5	
Chromium (VI)																
Mercury (Hg)	0.026	0.01	0.03	0.08	0.07	0.01	0.04	0.01	0.03	0.18	0.11	0.05	0.03			
Dissolved Aluminum (Al)	75	5	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	
Dissolved Antimony (Sb)	0	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	
Dissolved Arsenic (As)	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Dissolved Barium (Ba)	0	5	5	5	14	10	5	14	<5	<5	<5	6	<5	<5	<5	
Dissolved Beryllium (Be)	0	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	
Dissolved Bismuth (Bi)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dissolved Boron (B)	1500	10	10	10	10	10	10	10	10	10	10	10	10	10	10	
Dissolved Cadmium (Cd)	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	
Dissolved Calcium (Ca)	0	200	3700	3800	7900	7700	1500	7200	2800	2700	2800	1400	1600	<200	<200	
Dissolved Chromium (Cr)	8.9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
Dissolved Cobalt (Co)	0	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	
Dissolved Copper (Cu)	1.185	1	1	1	2	1	1	1	1	1	1	1	1	1	1	
Dissolved Iron (Fe)	300	100	100	100	120	200	100	100	100	100	100	200	190	100	100	
Dissolved Lead (Pb)	1	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	
Dissolved Lithium (Li)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Dissolved Magnesium (Mg)	0	50	600	630	760	880	450	720	600	600	620	450	430	<50	<50	
Dissolved Manganese (Mn)	50	2	2	2	27	9	53	2	2	2	2	9	13	2	2	
Dissolved Molybdenum (Mo)	73	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Dissolved Nickel (Ni)	22.604	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
Dissolved Potassium (K)	0	200	560	580	1200	1400	460	1100	440	420	440	440	420	<200	<200	
Dissolved Selenium (Se)	15	2	2	2	2	2	2	2	2	2	2	2	2	2	2	
Dissolved Silicon (Si)	0	50	1700	1600	2200	3000	940	2200	1400	1500	1500	920	1300	<50	<50	
Dissolved Silver (Ag)	0.25	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	
Dissolved Sodium (Na)	0	100	1100	1200	900	1300	1100	870	910	940	940	1100	1300	<100	<100	
Dissolved Strontium (Sr)	0	1	11	11	18	20	9	19	12	11	12	9	9	<1	1	
Dissolved Tellurium (Te)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dissolved Thallium (Tl)	0.8	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	
Dissolved Tin (Sn)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dissolved Titanium (Ti)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	
Dissolved Tungsten (W)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dissolved Uranium (U)	15	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	
Dissolved Vanadium (V)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	
Dissolved Zinc (Zn)	30	5	5	9	5	6	5	8	5	5	5	5	5	5	5	
Dissolved Zirconium (Zr)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	

		SW BK11-1L	SW BK11-2L	SW PL11-1L	SW SL11-1L	SW BC11-1C	SW SW2C	SW BL11-1L	SW BL11-2L	SW BL11-3L	SW DP11-1A	SW WH11-1L	TRIP BLANK	FBLK
Total Aluminum (Al)	75	21	19	7	30	130	9	41	46	47	140	170	5	5
Total Cadmium (Cd)	0.02	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
Total Copper (Cu)	1.185	1	1	1	1	1	1	1	1	1	1	2	1	1
Total Iron (Fe)	300	100	100	100	210	300	100	100	100	100	280	290	100	100
Total Manganese (Mn)	50	6	5	6	44	19	62	6	5	5	20	15	2	2
Total Mercury (Hg)	0.026	1.34	0.54	0.39	0.01	0.44	0.01	0.02	0.15	0.07	0.66	0.54	0.01	0.01

Notes:

- a) BK = Beak Lake (Wapageisi Lake Watershed)
- BL = Bending Lake (Bending Lake Watershed)
- SL11 = SL 5 = Unnamed (Wabigoon Lake Watershed)
- BC = Bending Creek (Bending Lake Watershed)
- PL = Page Lake (Bending Lake Watershed)
- WH = West Hawk L = BGL1 (Bending Lake Watershed)
- b) Cells shaded red indicate exceedances of PWQO standard

Historical Data
Table 2 - DST Water Quality Lab Results

Parameter	PWQO Guidelines (ug/L)	RDL	Q3																
			16th August 2011									17th August 2011							
			SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND
			SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND
Dissolved (0.2u) Aluminum (Al)		5	9	9	12	9	11	12	9	9	14	<5	15	15	15	14	14	16	14
Chromium (VI)																			
Mercury (Hg)	0.026	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.14	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01
Dissolved Aluminum (Al)	75	5	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	17	15
Dissolved Antimony (Sb)	0	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
Dissolved Arsenic (As)	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Barium (Ba)	0	5	5	4	5	4	5	6	4	4	6	12	4	4	4	4	4	4	4
Dissolved Beryllium (Be)	0	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
Dissolved Bismuth (Bi)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Boron (B)	1500	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
Dissolved Cadmium (Cd)	0.1	0.1	0.2	0.1	0.1	0.2	0.4	0.2	0.1	0.1	0.1	0.1	0.4	0.3	0.2	0.1	0.1	0.5	0.1
Dissolved Calcium (Ca)	0	200	3700	3700	3800	3600	3700	3500	3500	3600	7200	2600	2600	2500	2600	2600	2600	2600	2600
Dissolved Chromium (Cr)	8.9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Dissolved Cobalt (Co)	0	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
Dissolved Copper (Cu)	1.185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Iron (Fe)	300	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Dissolved Lead (Pb)	1	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
Dissolved Lithium (Li)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Magnesium (Mg)	0	50	580	590	590	580	570	590	580	590	590	670	540	570	580	590	570	550	580
Dissolved Manganese (Mn)	50	2	2	2	6	2	2	33	2	2	2	5	2	2	2	2	2	2	2
Dissolved Molybdenum (Mo)	73	1	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
Dissolved Nickel (Ni)	22.604	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Potassium (K)	0	200	590	580	630	600	610	620	590	590	620	1200	460	430	420	430	430	460	410
Dissolved Selenium (Se)	15	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dissolved Silicon (Si)	0	50	1400	1400	1700	1400	1400	1700	1400	1400	2000	2100	1200	1200	1200	1200	1100	1200	1200
Dissolved Silver (Ag)	0.25	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
Dissolved Sodium (Na)	0	100	1200	1100	1100	1100	1200	1100	1100	1100	1100	850	900	930	910	970	900	930	920
Dissolved Strontium (Sr)	0	1	12	11	11	11	11	11	11	10	11	17	11	11	11	11	11	11	11
Dissolved Tellurium (Te)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Thallium (Tl)	0.8	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
Dissolved Tin (Sn)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Titanium (Ti)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Dissolved Tungsten (W)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
Dissolved Uranium (U)	15	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
Dissolved Vanadium (V)	0	1	<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
Dissolved Zinc (Zn)	30	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Dissolved Zirconium (Zr)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1

	SW BK11-1L TOP	SW BK11-1L MID	SW BK11-1L BOT	SW BK11-2L TOP	SW BK11-2L MID	SW BK11-2L BOT	SW BK11-3L TOP	SW BK11-3L MID	SW BK11-3L BOT	SW BL11-2C	SW BL11-3L TOP	SW BL11-3L MID	SW BL11-3L BOT	SW BL11-2L TOP	SW BL11-2L MID	SW BL11-2L BOT	SW BL11-2L AND	
Total Aluminum (Al)	75	19	16	24	18	15	22	19	17	26	9	26	40	28	25	27	31	25
Total Cadmium (Cd)	0.02	0.1	0.1	0.3	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
Total Copper (Cu)	1.185	1	1	2	1	1	1	2	1	1	1	1	1	1	1	1	1	1
Total Iron (Fe)	300	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100	100
Total Manganese (Mn)	50	8	9	29	9	9	68	8	8	15	34	8	8	9	6	7	7	6
Total Mercury (Hg)	0.026	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

Notes:

- a) BK = Beak Lake (Wapageisi Lake Watershed)
- BL = Bending Lake (Bending Lake Watershed)
- SL11 = SL 5 = Unnamed (Wabigoon Lake Watershed)
- BC = Bending Creek (Bending Lake Watershed)
- PL = Page Lake (Bending Lake Watershed)
- WH = West Hawk L = BGL1 (Bending Lake Watershed)
- b) Cells shaded red indicate exceedances of PWQO standard

Historical Data
Table 2 - DST Water Quality Lab Results

Parameter	PWQO Guidelines (ug/L)	RDL	Q3																	
			17th August 2011					18th August 2011								23rd August 2011				
			FDBLK	TRBLK	SW-SL11-1L	SW BL11-1L TOP	SW BL11-1L MID	SW BL11-1L BOT	SW BL11-1L AND	SW BL11-1C	SW PL11-1L TOP	SW PL11-1L MID	SW PL11-1L BOT	SW WH11-1L TOP	SW WH11-1L MID	SW WH11-1L BOT	SW-T1-11-3L BOT	SW-T1-11-4L	SW-T1-11-4L TOP	SW-T1-11-3L TOP
					1L	1L TOP	1L MID	1L BOT	1L AND	1C	1L TOP	1L MID	1L BOT	1L TOP	1L MID	1L BOT	3L BOT	4L	4L TOP	3L TOP
Dissolved (0.2u) Aluminum (Al)		5	<5	<5	7	14	14	19	14	88	<5	<5	<5	99	98	110	8	130	9	9
Chromium (VI)																				
Mercury (Hg)	0.026	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	0.05	0.08	0.12	0.19
Dissolved Aluminum (Al)	75	5	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	13.00	10.00	150.00	10.00	10.00
Dissolved Antimony (Sb)	0	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	0.8	0.5	0.5
Dissolved Arsenic (As)	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Barium (Ba)	0	5	<2	<2	9	4	4	4	4	4	11	10	17	3	3	4	6	6	4	6
Dissolved Beryllium (Be)	0	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
Dissolved Bismuth (Bi)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1
Dissolved Boron (B)	1500	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	11	10	10
Dissolved Cadmium (Cd)	0.1	0.1	0.1	0.1	0.1	0.1	0.4	0.1	0.1	0.1	0.3	0.1	0.1	0.1	0.1	0.1	0.1	0.7	0.1	0.1
Dissolved Calcium (Ca)	0	200	<200	<200	7400	2600	2500	2600	2600	1400	7000	6600	7400	1300	1300	1500	9000	5900	1500	9100
Dissolved Chromium (Cr)	8.9	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Dissolved Cobalt (Co)	0	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
Dissolved Copper (Cu)	1.185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
Dissolved Iron (Fe)	300	100	100	100	100	100	100	100	100	210	100	100	100	100	100	190	120	900	100	100
Dissolved Lead (Pb)	1	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	0.6	0.5	0.5
Dissolved Lithium (Li)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	5	5	5
Dissolved Magnesium (Mg)	0	50	<50	<50	850	590	580	560	580	440	700	640	720	420	410	430	710	750	510	710
Dissolved Manganese (Mn)	50	2	2	2	17	2	2	3	2	20	2	2	85	4	5	34	2	12	2	2
Dissolved Molybdenum (Mo)	73	1	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
Dissolved Nickel (Ni)	22.604	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Dissolved Potassium (K)	0	200	<200	<200	1400	430	420	470	440	430	1100	1000	1100	400	420	440	440	600	240	440
Dissolved Selenium (Se)	15	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
Dissolved Silicon (Si)	0	50	<50	<50	2600	1100	1200	1300	1200	1000	2000	1800	2400	810	800	980	1200	3800	450	1200
Dissolved Silver (Ag)	0.25	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
Dissolved Sodium (Na)	0	100	<100	<100	1300	920	900	960	930	1100	880	780	860	1300	1200	1300	730	930	680	750
Dissolved Strontium (Sr)	0	1	<1	<1	19	11	11	11	11	8	17	16	18	8	8	9	15	14	7	15
Dissolved Tellurium (Te)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1
Dissolved Thallium (Tl)	0.8	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
Dissolved Tin (Sn)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1
Dissolved Titanium (Ti)	0	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	5	5	5
Dissolved Tungsten (W)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1
Dissolved Uranium (U)	15	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
Dissolved Vanadium (V)	0	1	<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
Dissolved Zinc (Zn)	30	5	6	5	5	5	5	5	5	5	5	5	5	5	10	5	5	10	5	5
Dissolved Zirconium (Zr)	0	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	1

		FDBLK	TRBLK	SW-SL11-1L	SW BL11-1L TOP	SW BL11-1L MID	SW BL11-1L BOT	SW BL11-1L AND	SW BL11-1C	SW PL11-1L TOP	SW PL11-1L MID	SW PL11-1L BOT	SW WH11-1L TOP	SW WH11-1L MID	SW WH11-1L BOT	SW-T1-11-3L BOT	SW-T1-11-4L	SW-T1-11-4L TOP	SW-T1-11-3L TOP
Total Aluminum (Al)	75	5	5	50	27	29	35	28	100	6	10	9	130	120	150	43	220	36	20
Total Cadmium (Cd)	0.02	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	0.2	0.1	0.1
Total Copper (Cu)	1.185	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	1	1
Total Iron (Fe)	300	100	100	280	100	100	100	100	330	100	100	130	180	170	440	240	1800	100	170
Total Manganese (Mn)	50	2	2	69	7	7	10	7	28	14	15	110	10	10	41	44	21	18	41
Total Mercury (Hg)	0.026	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	0.04	0.02	0.08	0.07

- Notes:
- a) BK = Beak Lake (Wapageisi Lake Watershed)
 - BL = Bending Lake (Bending Lake Watershed)
 - SL11 = SL 5 = Unnamed (Wabigoon Lake Watershed)
 - BC = Bending Creek (Bending Lake Watershed)
 - PL = Page Lake (Bending Lake Watershed)
 - WH = West Hawk L = BGL1 (Bending Lake Watershed)
 - b) Cells shaded red indicate exceedances of PWQO standard

Appendix 6 - Historical Data
DST Surface Water Quality Site Locations

Site	Northing	Easting
SW-SL11-1L	5466389	556865
SW-WH11-1L	5472740	560933
SW-BC11-1C	5465669	562843
SW-PL11-1L	5463100	559643
SW-BL 11-2C	5463250	560186
SW-BL11-1L	5462295	562144
SW-BL11-2L	5461146	563613
SW-BL11-3L	5458358	565165
SW-BK11-1L	5458184	553471
SW-BK11-2L	5459735	555313
SW-BK11-3L	5460467	556618



Appendix 7

Water Quality Summary Statistics

Table 1 - TC1

In Situ Parameters	Total Count	Min	Median	Max	Standard Deviation
Temp	3	11.17	20.03	22.65	6.0E+00
EC (uS/cm)	3	26	29	29	1.7E+00
Dissolved Oxygen (%)	3	83.4	99.4	101.7	1.0E+01
Dissolved Oxygen (mg/L)	3	7.57	8.71	10.93	1.7E+00
pH	3	7.25	7.34	7.8	3.0E-01
ORP	3	88.8	141.5	207.3	5.9E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	26	27.75	30.4	2.3E+00
Hardness (as CaCO3)	4	7.26	8.08	8.99	7.8E-01
pH	4	6.7	6.755	7.12	1.9E-01
Total Suspended Solids	4	1	2.2	5.7	2.2E+00
Total Dissolved Solids	4	23	27.5	34	5.4E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.1	2.5	3.2	5.2E-01
Alkalinity, Total (as CaCO3)	4	5.5	6.8	8	1.3E+00
Ammonia, Total (as N)	4	0.02	0.02	0.02	-
Bromide (Br)	4	0.1	0.1	0.1	-
Chloride (Cl)	4	2.37	2.595	3.11	3.6E-01
Fluoride (F)	4	0.02	0.0215	0.027	3.1E-03
Nitrate (as N)	4	0.02	0.02	0.02	-
Nitrite (as N)	4	0.01	0.01	0.01	-
Total Kjeldahl Nitrogen	4	0.25	0.325	0.44	8.3E-02
Total Nitrogen	4	0.25	0.325	0.44	8.3E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	-
Phosphorus (P)-Total	4	0.0082	0.00915	0.0098	6.6E-04
Sulfate (SO4)	4	1.1	1.48	2.07	5.0E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	9.2	9.55	10.9	7.6E-01
Total Organic Carbon	4	9.1	9.45	9.6	2.2E-01
Total Metals					
Aluminum (Al)-Total	4	0.0412	0.05585	0.0737	1.4E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	-
Arsenic (As)-Total	4	0.00025	0.00029	0.00034	4.9E-05
Barium (Ba)-Total	4	0.0036	0.00419	0.00498	6.0E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	-
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	-
Boron (B)-Total	4	0.01	0.01	0.01	-
Cadmium (Cd)-Total	4	0.000068	0.0001345	0.0000701	3.0E-05
Calcium (Ca)-Total	4	2.03	2.35	2.46	1.9E-01
Cesium (Cs)-Total	4	0.00001	0.00001	0.000011	5.0E-07
Chromium (Cr)-Total	4	0.00023	0.00026	0.00042	8.8E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.000515	0.00058	3.8E-05
Iron (Fe)-Total	4	0.3	0.346	0.584	1.3E-01
Lead (Pb)-Total	4	0.000126	0.000144	0.000296	8.0E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.496	0.615	0.644	6.8E-02
Manganese (Mn)-Total	4	0.00624	0.0094	0.0153	4.0E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.000064	7.0E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.297	0.3535	0.428	5.4E-02
Rubidium (Rb)-Total	4	0.00094	0.001185	0.00133	1.8E-04
Selenium (Se)-Total	4	0.000055	0.0000755	0.000097	2.2E-05
Silicon (Si)-Total	4	1.61	1.695	1.91	1.3E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	1.83	2.245	2.65	3.5E-01
Strontium (Sr)-Total	4	0.00967	0.01037	0.0112	7.6E-04
Sulfur (S)-Total	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.000105	0.00012	9.6E-06
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.00072	0.000835	0.00145	3.4E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000076	0.000091	0.000108	1.5E-05
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.0051	1.1E-03
Zirconium (Zr)-Total	4	0.000074	0.000084	0.000095	8.7E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0215	0.035	0.0613	1.7E-02
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00022	0.00027	0.00031	4.0E-05
Barium (Ba)-Dissolved	4	0.00327	0.00396	0.00499	7.4E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000054	0.0000605	0.0000434	1.9E-05
Calcium (Ca)-Dissolved	4	2	2.26	2.56	2.5E-01
Cesium (Cs)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	4	0.00011	0.0002	0.0003	7.9E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00027	0.00032	0.00089	2.9E-04
Iron (Fe)-Dissolved	4	0.171	0.2355	0.294	5.0E-02
Lead (Pb)-Dissolved	4	0.000056	0.000085	0.000205	6.7E-05
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.551	0.593	0.629	4.1E-02
Manganese (Mn)-Dissolved	4	0.00265	0.0051	0.0056	1.3E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	-
Potassium (K)-Dissolved	4	0.317	0.3445	0.482	7.5E-02
Rubidium (Rb)-Dissolved	4	0.00094	0.00113	0.00127	1.5E-04
Selenium (Se)-Dissolved	4	0.000052	0.000058	0.000073	9.0E-06
Silicon (Si)-Dissolved	4	1.46	1.725	1.91	2.2E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	2.04	2.215	2.77	3.4E-01
Strontium (Sr)-Dissolved	4	0.00854	0.00998	0.0107	1.0E-03
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.00011	5.0E-06
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.00052	0.00063	1.7E-04
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00007	0.0000815	0.000091	8.6E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.0011	0.00285	0.0064	2.2E-03
Zirconium (Zr)-Dissolved	4	0.000078	0.0000935	0.000105	1.2E-05

Notes:

1. Units are mg/L unless stated otherwise

Table 2 - TC2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.34	17.95	22.11	5.4E+00
EC (uS/cm)	3	22	22	24	1.2E+00
Dissolved Oxygen (%)	3	88.8	100	108	9.6E+00
Dissolved Oxygen (mg/L)	3	7.73	10.19	11.35	1.8E+00
pH	3	7.39	7.54	7.95	2.9E-01
ORP	3	131.9	168.2	186.9	2.8E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	22	23	23.5	6.8E-01
Hardness (as CaCO3)	4	8.48	8.57	9.18	3.3E-01
pH	4	6.84	6.93	6.99	6.2E-02
Total Suspended Solids	4	1	1.05	1.4	1.9E-01
Total Dissolved Solids	4	21	25	29	3.3E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.1	2.25	3.6	7.1E-01
Alkalinity, Total (as CaCO3)	4	7.9	8.2	8.9	4.3E-01
Ammonia, Total (as N)	4	0.02	0.02	0.02	0.0E+00
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.27	0.29	0.43	7.4E-02
Fluoride (F)	4	0.023	0.027	0.034	4.6E-03
Nitrate (as N)	4	0.02	0.02	0.029	4.5E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.2	0.235	0.25	2.4E-02
Total Nitrogen	4	0.22	0.24	0.25	1.5E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0041	0.00485	0.0065	1.0E-03
Sulfate (SO4)	4	1.7	2.065	2.48	3.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	6	6.15	6.3	1.3E-01
Total Organic Carbon	4	5.7	6	6.4	3.0E-01
Total Metals					
Aluminum (Al)-Total	4	0.0252	0.04155	0.0465	9.5E-03
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00019	0.00022	0.00026	2.9E-05
Barium (Ba)-Total	4	0.00385	0.004145	0.00449	2.7E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.00000715	0.0000282	1.1E-05
Calcium (Ca)-Total	4	2.49	2.56	2.62	6.2E-02
Cesium (Cs)-Total	4	0.000015	0.0000165	0.000019	2.1E-06
Chromium (Cr)-Total	4	0.00016	0.00021	0.00039	1.0E-04
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.00051	5.0E-06
Iron (Fe)-Total	4	0.087	0.1085	0.155	3.3E-02
Lead (Pb)-Total	4	0.00005	0.00005	0.000069	9.5E-06
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.623	0.627	0.653	1.4E-02
Manganese (Mn)-Total	4	0.00472	0.007785	0.00978	2.2E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.0000059	0.0000685	0.000079	9.7E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.405	0.43	0.445	1.7E-02
Rubidium (Rb)-Total	4	0.00124	0.001325	0.00142	9.6E-05
Selenium (Se)-Total	4	0.00005	0.000057	0.000087	1.7E-05
Silicon (Si)-Total	4	1.38	1.495	1.58	9.8E-02
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.932	0.96	1.07	6.5E-02
Strontium (Sr)-Total	4	0.0118	0.012	0.0125	3.1E-04
Sulfur (S)-Total	4	0.5	0.61	0.66	6.8E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.00042	1.6E-04
Titanium (Ti)-Total	4	0.0003	0.000675	0.00127	4.4E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000079	0.0000825	0.000088	3.9E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.0038	4.0E-04
Zirconium (Zr)-Total	4	0.00006	0.00006	0.000065	2.5E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0157	0.02095	0.0271	6.2E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00015	0.00018	0.00019	1.9E-05
Barium (Ba)-Dissolved	4	0.00379	0.004025	0.00418	1.7E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.0000068	0.0000214	7.8E-06
Calcium (Ca)-Dissolved	4	2.41	2.43	2.62	9.9E-02
Cesium (Cs)-Dissolved	4	0.000014	0.0000165	0.000018	1.7E-06
Chromium (Cr)-Dissolved	4	0.0001	0.00012	0.00015	2.6E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00026	0.00029	0.00033	3.0E-05
Iron (Fe)-Dissolved	4	0.04	0.047	0.061	1.0E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.593	0.612	0.64	2.2E-02
Manganese (Mn)-Dissolved	4	0.00065	0.001075	0.00149	3.7E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.0000051	0.0000665	0.00009	1.6E-05
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.395	0.42	0.45	2.3E-02
Rubidium (Rb)-Dissolved	4	0.00122	0.001275	0.00131	3.7E-05
Selenium (Se)-Dissolved	4	0.00005	0.000056	0.000073	1.0E-05
Silicon (Si)-Dissolved	4	1.26	1.515	1.57	1.4E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.905	0.9725	1.06	6.4E-02
Strontium (Sr)-Dissolved	4	0.0107	0.01135	0.0118	4.5E-04
Sulfur (S)-Dissolved	4	0.5	0.51	0.67	8.2E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.000067	0.000072	0.000074	3.4E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00135	0.0022	5.9E-04
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 3 - BGL1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.3	20.87	24.18	6.7E+00
EC (uS/cm)	3	18	21	21	1.7E+00
Dissolved Oxygen (%)	3	97.8	98.5	100	1.1E+00
Dissolved Oxygen (mg/L)	3	8.36	8.62	10.64	1.2E+00
pH	3	7.41	7.44	7.62	1.1E-01
ORP	3	115.8	161.7	166.2	2.8E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	17.6	19.85	23.4	2.5E+00
Hardness (as CaCO3)	4	5.13	5.555	6.03	4.4E-01
pH	4	6.16	6.215	7.07	4.4E-01
Total Suspended Solids	4	1	1	7.2	3.1E+00
Total Dissolved Solids	4	26	29.5	31	2.4E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	3.1	3.3	3.5	1.8E-01
Alkalinity, Total (as CaCO3)	4	2.6	3.2	3.9	5.3E-01
Ammonia, Total (as N)	4	0.02	0.032	0.05	1.6E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	1.33	1.68	2.74	6.2E-01
Fluoride (F)	4	0.023	0.028	0.035	4.9E-03
Nitrate (as N)	4	0.02	0.02	0.034	7.0E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.25	0.35	0.59	1.4E-01
Total Nitrogen	4	0.25	0.35	0.62	1.6E-01
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0058	0.01105	0.0255	9.1E-03
Sulfate (SO4)	4	0.97	1.47	1.63	3.0E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	10.7	12.05	12.7	8.4E-01
Total Organic Carbon	4	10.4	12.9	13.2	1.3E+00
Total Metals					
Aluminum (Al)-Total	4	0.127	0.15	0.172	1.8E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00029	0.00032	0.00034	2.2E-05
Barium (Ba)-Total	4	0.0034	0.00492	0.00552	9.1E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.0000121	0.00001675	0.0000615	3.0E-04
Calcium (Ca)-Total	4	1.32	1.47	1.65	1.5E-01
Cesium (Cs)-Total	4	0.000014	0.000018	0.000019	2.4E-06
Chromium (Cr)-Total	4	0.00032	0.00033	0.00036	1.7E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Iron (Fe)-Total	4	0.174	0.2675	0.351	7.7E-02
Lead (Pb)-Total	4	0.000105	0.000122	0.000158	2.5E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.404	0.4595	0.483	3.6E-02
Manganese (Mn)-Total	4	0.0081	0.01085	0.0171	3.8E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000006	5.0E-07
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.000051	5.0E-07
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.342	0.38	0.453	4.7E-02
Rubidium (Rb)-Total	4	0.00115	0.001225	0.00151	1.6E-04
Selenium (Se)-Total	4	0.000068	0.0000855	0.000127	2.5E-05
Silicon (Si)-Total	4	1.04	1.415	1.51	2.1E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	1.52	1.63	2.25	3.4E-01
Strontium (Sr)-Total	4	0.00866	0.009305	0.0099	5.5E-04
Sulfur (S)-Total	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.00096	0.001085	0.00144	2.1E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000051	0.0000545	0.000061	5.1E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.0032	0.0038	3.8E-04
Zirconium (Zr)-Total	4	0.000129	0.000131	0.000138	3.9E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.109	0.1435	0.17	2.6E-02
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00028	0.0003	0.00034	2.6E-05
Barium (Ba)-Dissolved	4	0.00334	0.005075	0.00567	1.0E-03
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.0000097	0.00002075	0.0000585	2.8E-04
Calcium (Ca)-Dissolved	4	1.35	1.48	1.6	1.2E-01
Cesium (Cs)-Dissolved	4	0.000015	0.0000155	0.00002	2.4E-06
Chromium (Cr)-Dissolved	4	0.00019	0.000285	0.00034	6.4E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.00012	1.0E-05
Copper (Cu)-Dissolved	4	0.00033	0.000415	0.00048	7.6E-05
Iron (Fe)-Dissolved	4	0.12	0.235	0.327	8.5E-02
Lead (Pb)-Dissolved	4	0.000083	0.0001	0.000164	3.6E-05
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.423	0.453	0.492	3.6E-02
Manganese (Mn)-Dissolved	4	0.00376	0.00811	0.0205	7.4E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.0000053	1.5E-07
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.351	0.3815	0.484	5.8E-02
Rubidium (Rb)-Dissolved	4	0.00111	0.00121	0.00158	2.1E-04
Selenium (Se)-Dissolved	4	0.00005	0.000078	0.000084	1.6E-05
Silicon (Si)-Dissolved	4	0.948	1.39	1.48	2.4E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	1.49	1.745	2.24	3.4E-01
Strontium (Sr)-Dissolved	4	0.00844	0.00887	0.00988	6.7E-04
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.00059	0.00091	0.00135	3.1E-04
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00005	0.000052	0.000056	2.6E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.0017	0.00395	0.0056	1.7E-03
Zirconium (Zr)-Dissolved	4	0.000126	0.0001545	0.00017	1.9E-05

Notes:

1. Units are mg/L unless stated otherwise

Table 4 - BGL2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	10.94	15.735	22.97	6.2E+00
EC (uS/cm)	4	23	23	23	0.0E+00
Dissolved Oxygen (%)	4	94.4	98.14	111	7.8E+00
Dissolved Oxygen (mg/L)	4	8.09	10.205	11.14	1.3E+00
pH	4	6.55	6.84	7.2	3.1E-01
ORP	4	146.8	190.05	215.5	3.4E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	23.3	23.65	24.6	5.9E-01
Hardness (as CaCO3)	4	8.55	8.905	9.39	3.5E-01
pH	4	6.83	7.025	7.27	2.4E-01
Total Suspended Solids	4	1	1	1	0.0E+00
Total Dissolved Solids	4	17	22.5	30	5.4E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.2	2.3	2.9	3.2E-01
Alkalinity, Total (as CaCO3)	4	7.3	7.9	10.2	1.3E+00
Ammonia, Total (as N)	4	0.02	0.02	0.02	0.0E+00
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.3	0.32	0.35	2.1E-02
Fluoride (F)	4	0.022	0.0265	0.035	5.6E-03
Nitrate (as N)	4	0.02	0.029	0.04	9.1E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.17	0.26	0.42	1.0E-01
Total Nitrogen	4	0.2	0.26	0.46	1.1E-01
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0034	0.00385	0.0067	1.5E-03
Sulfate (SO4)	4	1.81	2.06	2.55	3.6E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	5.8	6.2	7	5.1E-01
Total Organic Carbon	4	5.9	6.3	7.3	6.2E-01
Total Metals					
Aluminum (Al)-Total	4	0.0333	0.03995	0.0529	8.2E-03
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00019	0.00022	0.00023	1.9E-05
Barium (Ba)-Total	4	0.00431	0.004435	0.00467	1.5E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.00017325	0.00245	1.2E-03
Calcium (Ca)-Total	4	2.55	2.63	2.77	9.3E-02
Cesium (Cs)-Total	4	0.000014	0.0000165	0.000017	1.4E-06
Chromium (Cr)-Total	4	0.00017	0.00027	0.00324	1.5E-03
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.00074	1.2E-04
Iron (Fe)-Total	4	0.049	0.0855	0.132	3.5E-02
Lead (Pb)-Total	4	0.00005	0.0000975	0.000523	2.3E-04
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.571	0.618	0.656	3.5E-02
Manganese (Mn)-Total	4	0.00222	0.005125	0.00711	2.0E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.000072	0.000078	0.000111	1.8E-05
Nickel (Ni)-Total	4	0.0005	0.0005	0.00163	5.7E-04
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.418	0.442	0.465	2.7E-02
Rubidium (Rb)-Total	4	0.00122	0.001295	0.00139	7.1E-05
Selenium (Se)-Total	4	0.000064	0.000087	0.000097	1.5E-05
Silicon (Si)-Total	4	1.4	1.515	1.67	1.2E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.909	0.9765	1.04	6.4E-02
Strontium (Sr)-Total	4	0.0114	0.0118	0.0125	4.6E-04
Sulfur (S)-Total	4	0.5	0.535	0.66	7.0E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.00011	5.0E-06
Titanium (Ti)-Total	4	0.00034	0.00055	0.00064	1.4E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000062	0.000068	0.000074	5.2E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.0000605	0.000061	5.8E-07
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0207	0.0214	0.0399	9.4E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00011	0.000195	0.00021	4.6E-05
Barium (Ba)-Dissolved	4	0.00293	0.004075	0.00443	6.5E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.0000345	0.000122	5.2E-05
Calcium (Ca)-Dissolved	4	2.44	2.63	2.95	2.2E-01
Cesium (Cs)-Dissolved	4	0.000013	0.000015	0.000016	1.5E-06
Chromium (Cr)-Dissolved	4	0.0001	0.00013	0.00046	1.7E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.0002	0.000275	0.00034	5.7E-05
Iron (Fe)-Dissolved	4	0.026	0.0325	0.077	2.4E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.383	0.599	0.639	1.2E-01
Manganese (Mn)-Dissolved	4	0.00062	0.00084	0.00226	7.7E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.000059	0.0000615	0.00007	4.8E-06
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.00082	1.6E-04
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.279	0.4275	0.471	8.5E-02
Rubidium (Rb)-Dissolved	4	0.00083	0.001275	0.00135	2.4E-04
Selenium (Se)-Dissolved	4	0.00005	0.000067	0.000077	1.1E-05
Silicon (Si)-Dissolved	4	1.34	1.585	1.68	1.5E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.614	0.973	1.02	1.9E-01
Strontium (Sr)-Dissolved	4	0.0108	0.01115	0.0119	4.8E-04
Sulfur (S)-Dissolved	4	0.5	0.5	0.64	7.0E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00032	1.0E-05
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.000054	0.0000575	0.000064	4.6E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00115	0.0014	2.1E-04
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 5 - BGL3

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	8.69	18.935	23.2	6.8E+00
EC (uS/cm)	4	38	47	55	6.9E+00
Dissolved Oxygen (%)	4	96.2	97.8	106.6	4.8E+00
Dissolved Oxygen (mg/L)	4	8.28	9.425	11.55	1.4E+00
pH	4	6.64	7.05	7.38	3.1E-01
ORP	4	95.4	169.2	244.5	6.2E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	37.6	46.1	47.3	4.5E+00
Hardness (as CaCO3)	4	15.1	19.6	21.4	2.8E+00
pH	4	7.05	7.14	7.4	1.6E-01
Total Suspended Solids	4	1.6	1.7	16.7	7.5E+00
Total Dissolved Solids	4	25	37.5	46	8.7E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.6	2.85	3	1.7E-01
Alkalinity, Total (as CaCO3)	4	13.9	21.7	23.8	4.4E+00
Ammonia, Total (as N)	4	0.02	0.0205	0.034	6.8E-03
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.15	0.185	0.28	5.9E-02
Fluoride (F)	4	0.02	0.023	0.028	3.4E-03
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.28	0.415	0.45	7.8E-02
Total Nitrogen	4	0.28	0.415	0.45	7.8E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0097	0.01045	0.0118	9.2E-04
Sulfate (SO4)	4	2.02	2.475	3.46	6.1E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	7.1	9.15	9.6	1.2E+00
Total Organic Carbon	4	7.4	9.2	9.6	1.0E+00
Total Metals					
Aluminum (Al)-Total	4	0.0121	0.01885	0.0295	7.5E-03
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00017	0.00019	0.00024	3.1E-05
Barium (Ba)-Total	4	0.00926	0.01045	0.011	7.6E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.00001715	0.0000704	3.5E-04
Calcium (Ca)-Total	4	5.3	6.635	7.02	7.7E-01
Cesium (Cs)-Total	4	0.00001	0.00001	0.000012	1.0E-06
Chromium (Cr)-Total	4	0.00017	0.00018	0.00031	6.7E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.00074	1.2E-04
Iron (Fe)-Total	4	0.146	0.246	0.363	9.4E-02
Lead (Pb)-Total	4	0.000062	0.0000845	0.000583	2.5E-04
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.647	0.8215	0.888	1.2E-01
Manganese (Mn)-Total	4	0.0109	0.0209	0.0246	6.1E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.000054	0.000076	1.2E-05
Nickel (Ni)-Total	4	0.0005	0.0005	0.00055	2.5E-05
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.989	1.18	1.32	1.4E-01
Rubidium (Rb)-Total	4	0.0015	0.001595	0.00193	2.0E-04
Selenium (Se)-Total	4	0.000056	0.0000655	0.000085	1.2E-05
Silicon (Si)-Total	4	0.82	1.125	1.48	3.0E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.898	0.9735	1.15	1.1E-01
Strontium (Sr)-Total	4	0.0132	0.01735	0.0201	2.9E-03
Sulfur (S)-Total	4	0.5	0.77	0.8	1.4E-01
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.000115	0.0004	1.5E-04
Titanium (Ti)-Total	4	0.00035	0.000535	0.00075	1.7E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000019	0.000021	0.000025	2.6E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.006	0.00815	0.0164	4.6E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00015	0.000165	0.00021	2.6E-05
Barium (Ba)-Dissolved	4	0.00889	0.009805	0.0102	6.1E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.00002955	0.0000424	1.6E-05
Calcium (Ca)-Dissolved	4	5.01	6.54	7.15	9.3E-01
Cesium (Cs)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	4	0.0001	0.0001	0.00075	3.3E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00035	0.00037	0.00038	1.3E-05
Iron (Fe)-Dissolved	4	0.057	0.128	0.218	6.8E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.000067	8.5E-06
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.621	0.792	0.851	1.1E-01
Manganese (Mn)-Dissolved	4	0.00069	0.004545	0.00956	3.8E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.0000525	0.000053	1.4E-06
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.00052	1.0E-05
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.999	1.165	1.26	1.1E-01
Rubidium (Rb)-Dissolved	4	0.00154	0.00164	0.00167	5.7E-05
Selenium (Se)-Dissolved	4	0.00005	0.0000515	0.000076	1.3E-05
Silicon (Si)-Dissolved	4	0.811	1.0045	1.52	3.2E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.879	1.035	1.09	9.3E-02
Strontium (Sr)-Dissolved	4	0.0129	0.0166	0.0188	2.7E-03
Sulfur (S)-Dissolved	4	0.56	0.685	0.72	7.0E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.000016	0.000018	0.000023	3.0E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.0016	0.0065	2.6E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 6 - BGL5

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	10.7	13.715	22.23	5.0E+00
EC (uS/cm)	4	22	23	23	5.0E-01
Dissolved Oxygen (%)	4	90.4	96.95	105.1	6.6E+00
Dissolved Oxygen (mg/L)	4	7.83	10.465	10.78	1.4E+00
pH	4	6.45	7.205	7.56	5.0E-01
ORP	4	146.1	167.6	194	2.2E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	23.1	23.25	23.6	2.2E-01
Hardness (as CaCO3)	4	8.76	8.82	9.32	2.6E-01
pH	4	6.81	6.85	7.3	2.3E-01
Total Suspended Solids	4	1	1	1.1	5.0E-02
Total Dissolved Solids	4	21	25.5	27	2.6E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2	2.1	2.5	2.4E-01
Alkalinity, Total (as CaCO3)	4	8.1	8.25	8.5	2.1E-01
Ammonia, Total (as N)	4	0.02	0.02	0.12	5.0E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.25	0.285	0.36	5.4E-02
Fluoride (F)	4	0.021	0.0305	0.035	6.0E-03
Nitrate (as N)	4	0.02	0.02	0.04	1.0E-02
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.17	0.235	0.25	3.8E-02
Total Nitrogen	4	0.21	0.235	0.25	2.1E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0032	0.00465	0.006	1.2E-03
Sulfate (SO4)	4	1.74	1.89	3.12	6.4E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	5.7	6.35	6.9	6.1E-01
Total Organic Carbon	4	5.9	6.2	7	4.7E-01
Total Metals					
Aluminum (Al)-Total	4	0.0262	0.0392	0.0506	1.0E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00021	0.00021	0.00023	1.0E-05
Barium (Ba)-Total	4	0.00402	0.004255	0.00449	2.1E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.0000087	0.0000886	4.1E-05
Calcium (Ca)-Total	4	2.56	2.625	2.69	5.4E-02
Cesium (Cs)-Total	4	0.000014	0.0000165	0.00002	2.5E-06
Chromium (Cr)-Total	4	0.00015	0.000195	0.00023	3.9E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.00057	3.5E-05
Iron (Fe)-Total	4	0.068	0.1285	0.178	5.5E-02
Lead (Pb)-Total	4	0.00005	0.00005	0.000138	4.4E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.604	0.625	0.676	3.2E-02
Manganese (Mn)-Total	4	0.00462	0.006195	0.0115	3.1E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.000066	0.00007	0.000079	5.6E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.42	0.4455	0.478	2.5E-02
Rubidium (Rb)-Total	4	0.00122	0.001255	0.00144	1.0E-04
Selenium (Se)-Total	4	0.000058	0.000078	0.000088	1.5E-05
Silicon (Si)-Total	4	1.41	1.59	1.7	1.5E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.919	0.968	1.04	5.0E-02
Strontium (Sr)-Total	4	0.0116	0.0118	0.0123	3.1E-04
Sulfur (S)-Total	4	0.5	0.625	0.69	9.1E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.000475	0.0007	1.7E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000063	0.0000715	0.000074	5.0E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.0056	1.3E-03
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0194	0.0256	0.0414	9.7E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00016	0.00019	0.0002	1.9E-05
Barium (Ba)-Dissolved	4	0.00391	0.0041	0.00439	2.1E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.00000525	0.000015	4.9E-06
Calcium (Ca)-Dissolved	4	2.49	2.52	2.67	8.1E-02
Cesium (Cs)-Dissolved	4	0.000014	0.0000165	0.000018	1.7E-06
Chromium (Cr)-Dissolved	4	0.0001	0.00015	0.00027	8.3E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00027	0.00038	0.0004	5.9E-05
Iron (Fe)-Dissolved	4	0.037	0.0595	0.087	2.4E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.000083	1.7E-05
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.611	0.617	0.644	1.5E-02
Manganese (Mn)-Dissolved	4	0.00066	0.00094	0.00204	6.2E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.000065	0.0000705	0.000077	6.1E-06
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.00092	2.1E-04
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.404	0.43	0.49	3.6E-02
Rubidium (Rb)-Dissolved	4	0.00117	0.001225	0.00133	7.0E-05
Selenium (Se)-Dissolved	4	0.00005	0.0000665	0.000082	1.8E-05
Silicon (Si)-Dissolved	4	1.29	1.59	1.61	1.5E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.962	0.9725	1.03	3.1E-02
Strontium (Sr)-Dissolved	4	0.0107	0.01125	0.0119	4.9E-04
Sulfur (S)-Dissolved	4	0.5	0.515	0.69	9.1E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00047	8.5E-05
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00006	0.000063	0.000065	2.2E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.0014	0.00175	0.017	7.7E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 7 - BEND1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	10.81	14.545	21.8	4.9E+00
EC (uS/cm)	1	23	23	23	#DIV/0!
Dissolved Oxygen (%)	3	96	100	107	5.6E+00
Dissolved Oxygen (mg/L)	3	7.97	10.42	10.68	1.5E+00
pH	1	7.04	7.04	7.04	#DIV/0!
ORP	1	146.1	146.1	146.1	#DIV/0!
Depth (m)	4		-	3	1.3E+00
Physical Tests					
Conductivity (EC)	4	22.4	22.8	24.2	8.1E-01
Hardness (as CaCO3)	4	8.56	8.71	9.4	3.8E-01
pH	4	6.86	6.885	7.31	2.2E-01
Total Suspended Solids	4	1	1	1	0.0E+00
Total Dissolved Solids	4	18	26.5	30	5.9E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2	2.3	2.5	2.1E-01
Alkalinity, Total (as CaCO3)	4	6.6	8.25	8.7	9.5E-01
Ammonia, Total (as N)	4	0.02	0.023	0.07	2.4E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.28	0.295	0.47	9.0E-02
Fluoride (F)	4	0.022	0.026	0.039	7.5E-03
Nitrate (as N)	4	0.02	0.02	0.033	6.5E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.15	0.235	0.25	4.7E-02
Total Nitrogen	4	0.15	0.25	0.25	5.0E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0032	0.00475	0.0064	1.4E-03
Sulfate (SO4)	4	1.8	2.125	2.94	4.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	5.9	6.2	7.1	5.2E-01
Total Organic Carbon	4	5.9	6.35	7.1	5.0E-01
Total Metals					
Aluminum (Al)-Total	4	0.0274	0.03815	0.056	1.2E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.0002	0.00021	0.00023	1.3E-05
Barium (Ba)-Total	4	0.00397	0.00443	0.0048	3.6E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.0000131	0.0000215	9.3E-06
Calcium (Ca)-Total	4	2.55	2.59	2.66	4.9E-02
Cesium (Cs)-Total	4	0.000015	0.000016	0.000017	8.2E-07
Chromium (Cr)-Total	4	0.00017	0.000205	0.00037	9.2E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.0005	0.00066	8.0E-05
Iron (Fe)-Total	4	0.062	0.1035	0.149	3.8E-02
Lead (Pb)-Total	4	0.00005	0.0000535	0.000153	5.0E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.573	0.6155	0.649	3.1E-02
Manganese (Mn)-Total	4	0.00422	0.006275	0.00842	2.0E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.000075	0.0000795	0.000088	6.6E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.402	0.4245	0.452	2.4E-02
Rubidium (Rb)-Total	4	0.00125	0.00133	0.00137	5.1E-05
Selenium (Se)-Total	4	0.000057	0.0000605	0.000106	2.3E-05
Silicon (Si)-Total	4	1.44	1.56	1.68	9.8E-02
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.891	0.9515	1.03	6.3E-02
Strontium (Sr)-Total	4	0.0115	0.01195	0.0123	3.5E-04
Sulfur (S)-Total	4	0.5	0.54	0.58	4.1E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.000425	0.0005	8.5E-05
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000065	0.0000685	0.000075	4.3E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.00006	0.000062	1.0E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0218	0.0247	0.0406	8.7E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00014	0.00019	0.00022	3.7E-05
Barium (Ba)-Dissolved	4	0.00329	0.0042	0.00444	5.3E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.0000053	0.0000141	4.5E-06
Calcium (Ca)-Dissolved	4	2.47	2.515	2.7	1.1E-01
Cesium (Cs)-Dissolved	4	0.000014	0.000016	0.000018	1.6E-06
Chromium (Cr)-Dissolved	4	0.0001	0.0001	0.00043	1.7E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00026	0.00031	0.00049	1.0E-04
Iron (Fe)-Dissolved	4	0.034	0.042	0.088	2.5E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.531	0.6145	0.642	4.8E-02
Manganese (Mn)-Dissolved	4	0.0006	0.000815	0.00196	6.2E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.000057	0.00007	0.000159	4.7E-05
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.375	0.423	0.463	3.8E-02
Rubidium (Rb)-Dissolved	4	0.00102	0.00129	0.00135	1.5E-04
Selenium (Se)-Dissolved	4	0.00005	0.0000625	0.000086	1.5E-05
Silicon (Si)-Dissolved	4	1.33	1.55	1.63	1.4E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.852	0.9845	0.999	6.9E-02
Strontium (Sr)-Dissolved	4	0.0107	0.0113	0.0116	3.9E-04
Sulfur (S)-Dissolved	4	0.5	0.535	0.65	7.1E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.000018	4.0E-06
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00031	5.0E-06
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00006	0.0000645	0.000066	2.6E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.0013	0.0016	0.0186	8.6E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 8 - BEND2

In Situ Parameters	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	8.26	9.25	10.24	1.4E+00
EC (uS/cm)	0	0	#NUM!	0	#DIV/0!
Dissolved Oxygen (%)	1	99.2	99.2	99.2	#DIV/0!
Dissolved Oxygen (mg/L)	1	6.25	6.25	6.25	#DIV/0!
pH	0	0	#NUM!	0	#DIV/0!
ORP	0	0	#NUM!	0	#DIV/0!
Depth (m)	2		-	10	1.4E+00
Physical Tests					
Conductivity (EC)	2	24	24.05	24.1	7.1E-02
Hardness (as CaCO3)	2	8.87	8.87	8.87	0.0E+00
pH	2	6.63	6.71	6.79	1.1E-01
Total Suspended Solids	2	1	1	1	0.0E+00
Total Dissolved Solids	2	23	26.5	30	4.9E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	3.1	3.85	4.6	1.1E+00
Alkalinity, Total (as CaCO3)	2	8.1	8.35	8.6	3.5E-01
Ammonia, Total (as N)	2	0.02	0.0285	0.037	1.2E-02
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	0.28	0.31	0.34	4.2E-02
Fluoride (F)	2	0.03	0.034	0.038	5.7E-03
Nitrate (as N)	2	0.036	0.039	0.042	4.2E-03
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.25	0.25	0.25	0.0E+00
Total Nitrogen	2	0.25	0.25	0.25	0.0E+00
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0046	0.0049	0.0052	4.2E-04
Sulfate (SO4)	2	1.82	1.88	1.94	8.5E-02
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	5.8	5.85	5.9	7.1E-02
Total Organic Carbon	2	5.8	5.8	5.8	0.0E+00
Total Metals					
Aluminum (Al)-Total	2	0.035	0.03805	0.0411	4.3E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.0002	0.000205	0.00021	7.1E-06
Barium (Ba)-Total	2	0.00432	0.00438	0.00444	8.5E-05
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.000005	0.00000925	0.0000135	6.0E-06
Calcium (Ca)-Total	2	2.64	2.645	2.65	7.1E-03
Cesium (Cs)-Total	2	0.000014	0.0000145	0.000015	7.1E-07
Chromium (Cr)-Total	2	0.00017	0.000175	0.00018	7.1E-06
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Iron (Fe)-Total	2	0.063	0.0745	0.086	1.6E-02
Lead (Pb)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.567	0.5965	0.626	4.2E-02
Manganese (Mn)-Total	2	0.00544	0.00689	0.00834	2.1E-03
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.000064	0.000065	0.000066	1.4E-06
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.415	0.42	0.425	7.1E-03
Rubidium (Rb)-Total	2	0.00121	0.00127	0.00133	8.5E-05
Selenium (Se)-Total	2	0.000075	0.000085	0.000095	1.4E-05
Silicon (Si)-Total	2	1.63	1.73	1.83	1.4E-01
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	0.892	0.9045	0.917	1.8E-02
Strontium (Sr)-Total	2	0.012	0.01215	0.0123	2.1E-04
Sulfur (S)-Total	2	0.5	0.71	0.92	3.0E-01
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.00033	0.00036	4.2E-05
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.000065	0.0000655	0.000066	7.1E-07
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.0272	0.02935	0.0315	3.0E-03
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00017	0.000175	0.00018	7.1E-06
Barium (Ba)-Dissolved	2	0.00417	0.00422	0.00427	7.1E-05
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.0000131	0.000014	0.0000149	1.3E-06
Calcium (Ca)-Dissolved	2	2.55	2.555	2.56	7.1E-03
Cesium (Cs)-Dissolved	2	0.000013	0.0000135	0.000014	7.1E-07
Chromium (Cr)-Dissolved	2	0.0001	0.00014	0.00018	5.7E-05
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.00032	0.00163	0.00294	1.9E-03
Iron (Fe)-Dissolved	2	0.026	0.0335	0.041	1.1E-02
Lead (Pb)-Dissolved	2	0.00005	0.000127	0.000204	1.1E-04
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	0.604	0.605	0.606	1.4E-03
Manganese (Mn)-Dissolved	2	0.00069	0.001815	0.00294	1.6E-03
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.000054	0.000056	0.000058	2.8E-06
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.421	0.431	0.441	1.4E-02
Rubidium (Rb)-Dissolved	2	0.00125	0.00126	0.00127	1.4E-05
Selenium (Se)-Dissolved	2	0.000058	0.0000585	0.000059	7.1E-07
Silicon (Si)-Dissolved	2	1.7	1.745	1.79	6.4E-02
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	0.927	0.956	0.985	4.1E-02
Strontium (Sr)-Dissolved	2	0.0108	0.01115	0.0115	4.9E-04
Sulfur (S)-Dissolved	2	0.5	0.515	0.53	2.1E-02
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.000058	0.0000585	0.000059	7.1E-07
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.0017	0.0042	0.0067	3.5E-03
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:
1. Units are mg/L unless stated otherwise

Table 9 - BEND3

In Situ Parameters	Total Count	Min	Median	Max	Standard Deviation
Temp	3	6.18	7.34	8.98	1.4E+00
EC (uS/cm)	0	0	#NUM!	0	#DIV/0!
Dissolved Oxygen (%)	2	69.8	77.05	84.3	1.0E+01
Dissolved Oxygen (mg/L)	2	3.21	5.49	7.77	3.2E+00
pH	0	0	#NUM!	0	#DIV/0!
ORP	0	0	#NUM!	0	#DIV/0!
Depth (m)	3		-	17	1.7E+00
Physical Tests					
Conductivity (EC)	3	22.4	24.5	25.1	1.4E+00
Hardness (as CaCO3)	3	9.01	9.02	9.42	2.3E-01
pH	3	6.58	6.84	7	2.1E-01
Total Suspended Solids	3	1	7.3	18.3	8.8E+00
Total Dissolved Solids	3	19	28	30	5.9E+00
Anions and Nutrients					
Acidity (as CaCO3)	3	2.1	3.9	5.4	1.7E+00
Alkalinity, Total (as CaCO3)	3	7.7	8.2	8.5	4.0E-01
Ammonia, Total (as N)	3	0.02	0.02	0.026	3.5E-03
Bromide (Br)	3	0.1	0.1	0.1	1.7E-17
Chloride (Cl)	3	0.28	0.29	0.37	4.9E-02
Fluoride (F)	3	0.022	0.024	0.038	8.7E-03
Nitrate (as N)	3	0.02	0.066	0.105	4.3E-02
Nitrite (as N)	3	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	3	0.18	0.25	0.25	4.0E-02
Total Nitrogen	3	0.2	0.25	0.25	2.9E-02
Orthophosphate-Dissolved	3	0.003	0.003	0.003	5.3E-19
Phosphorus (P)-Total	3	0.0046	0.0049	0.0055	4.6E-04
Sulfate (SO4)	3	2	2.32	2.96	4.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	3	5.8	5.9	6	1.0E-01
Total Organic Carbon	3	5.7	5.8	6.1	2.1E-01
Total Metals					
Aluminum (Al)-Total	3	0.0394	0.0404	0.0435	2.1E-03
Antimony (Sb)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	3	0.0002	0.00021	0.00021	5.8E-06
Barium (Ba)-Total	3	0.00446	0.00459	0.00489	2.2E-04
Beryllium (Be)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	3	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	3	0.0000067	0.0000078	0.0000221	8.6E-06
Calcium (Ca)-Total	3	2.64	2.66	2.69	2.5E-02
Cesium (Cs)-Total	3	0.000014	0.000015	0.000017	1.5E-06
Chromium (Cr)-Total	3	0.00017	0.0002	0.0003	6.8E-05
Cobalt (Co)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	3	0.0005	0.00053	0.00064	7.4E-05
Iron (Fe)-Total	3	0.092	0.101	0.128	1.9E-02
Lead (Pb)-Total	3	0.000054	0.000058	0.000067	6.7E-06
Lithium (Li)-Total	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	3	0.565	0.641	0.654	4.8E-02
Manganese (Mn)-Total	3	0.00659	0.00836	0.00954	1.5E-03
Mercury (Hg)-Total	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	3	0.000057	0.000069	0.000072	7.9E-06
Nickel (Ni)-Total	3	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Total	3	0.406	0.442	0.442	2.1E-02
Rubidium (Rb)-Total	3	0.00117	0.00135	0.00138	1.1E-04
Selenium (Se)-Total	3	0.000059	0.000061	0.000071	6.4E-06
Silicon (Si)-Total	3	1.48	1.66	2.05	2.8E-01
Silver (Ag)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	3	0.886	0.951	0.989	5.2E-02
Strontium (Sr)-Total	3	0.0121	0.0123	0.0123	1.2E-04
Sulfur (S)-Total	3	0.5	0.5	3.38	1.7E+00
Tellurium (Te)-Total	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	3	0.0001	0.0001	0.00033	1.3E-04
Titanium (Ti)-Total	3	0.00037	0.00039	0.00063	1.4E-04
Tungsten (W)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	3	0.000061	0.000063	0.000067	3.1E-06
Vanadium (V)-Total	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	3	0.003	0.003	0.0038	4.6E-04
Zirconium (Zr)-Total	3	0.00006	0.00006	0.000067	4.0E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	3	0.0212	0.0351	0.036	8.3E-03
Antimony (Sb)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	3	0.00016	0.00016	0.00021	2.9E-05
Barium (Ba)-Dissolved	3	0.00415	0.00426	0.00481	3.5E-04
Beryllium (Be)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	3	0.000005	0.000005	0.0000207	9.1E-06
Calcium (Ca)-Dissolved	3	2.6	2.61	2.73	7.2E-02
Cesium (Cs)-Dissolved	3	0.000012	0.000014	0.000017	2.5E-06
Chromium (Cr)-Dissolved	3	0.0001	0.00012	0.0002	5.3E-05
Cobalt (Co)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	3	0.00029	0.00031	0.00035	3.1E-05
Iron (Fe)-Dissolved	3	0.043	0.048	0.054	5.5E-03
Lead (Pb)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	3	0.609	0.61	0.634	1.4E-02
Manganese (Mn)-Dissolved	3	0.00069	0.00165	0.00325	1.3E-03
Mercury (Hg)-Dissolved	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	3	0.000055	0.000056	0.000064	4.9E-06
Nickel (Ni)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Dissolved	3	0.426	0.434	0.437	5.7E-03
Rubidium (Rb)-Dissolved	3	0.00127	0.00131	0.00136	4.5E-05
Selenium (Se)-Dissolved	3	0.000055	0.000064	0.000075	1.0E-05
Silicon (Si)-Dissolved	3	1.56	1.78	1.96	2.0E-01
Silver (Ag)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	3	0.954	0.971	0.98	1.3E-02
Strontium (Sr)-Dissolved	3	0.0108	0.0116	0.0121	6.6E-04
Sulfur (S)-Dissolved	3	0.5	0.57	0.67	8.5E-02
Tellurium (Te)-Dissolved	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	3	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	3	0.000052	0.000055	0.000057	2.5E-06
Vanadium (V)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	3	0.0013	0.0014	0.0045	1.8E-03
Zirconium (Zr)-Dissolved	3	0.00006	0.00006	0.00161	8.9E-04

Notes:

1. Units are mg/L unless stated otherwise

Table 10 - STORM1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.78	16.62	21.84	5.0E+00
EC (uS/cm)	1	73	73	73	#DIV/0!
Dissolved Oxygen (%)	2	104.8	109.4	114	6.5E+00
Dissolved Oxygen (mg/L)	2	9.28	10.24	11.2	1.4E+00
pH	1	7.74	7.74	7.74	#DIV/0!
ORP	1	169.7	169.7	169.7	#DIV/0!
Depth (m)	2		-	2	0.0E+00
Physical Tests					
Conductivity (EC)	3	72.6	72.7	74.6	1.1E+00
Hardness (as CaCO3)	3	32.9	33.1	34	5.9E-01
pH	3	7.42	7.57	7.77	1.8E-01
Total Suspended Solids	3	1	1	1.9	5.2E-01
Total Dissolved Solids	3	49	53	53	2.3E+00
Anions and Nutrients					
Acidity (as CaCO3)	3	2	2	2	0.0E+00
Alkalinity, Total (as CaCO3)	3	33.7	35	35.5	9.3E-01
Ammonia, Total (as N)	3	0.02	0.02	0.02	0.0E+00
Bromide (Br)	3	0.1	0.1	0.1	1.7E-17
Chloride (Cl)	3	0.4	0.45	0.47	3.6E-02
Fluoride (F)	3	0.02	0.02	0.022	1.2E-03
Nitrate (as N)	3	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	3	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	3	0.18	0.25	0.25	4.0E-02
Total Nitrogen	3	0.18	0.25	0.25	4.0E-02
Orthophosphate-Dissolved	3	0.003	0.003	0.003	5.3E-19
Phosphorus (P)-Total	3	0.0047	0.005	0.0053	3.0E-04
Sulfate (SO4)	3	2.59	2.89	2.89	1.7E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	3	4.9	5	5.3	2.1E-01
Total Organic Carbon	3	5.1	5.1	5.3	1.2E-01
Total Metals					
Aluminum (Al)-Total	3	0.0049	0.0084	0.021	8.5E-03
Antimony (Sb)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	3	0.00023	0.00025	0.00025	1.2E-05
Barium (Ba)-Total	3	0.00615	0.0063	0.00651	1.8E-04
Beryllium (Be)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	3	0.00005	0.00005	0.000069	1.1E-05
Boron (B)-Total	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	3	0.000005	0.000005	0.000005	0.0E+00
Calcium (Ca)-Total	3	11.8	12	12.1	1.5E-01
Cesium (Cs)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Total	3	0.0001	0.00014	0.00015	2.6E-05
Cobalt (Co)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	3	0.00069	0.00074	0.00077	4.0E-05
Iron (Fe)-Total	3	0.01	0.01	0.013	1.7E-03
Lead (Pb)-Total	3	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	3	0.995	1.03	1.07	3.8E-02
Manganese (Mn)-Total	3	0.0021	0.00272	0.00392	9.3E-04
Mercury (Hg)-Total	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	3	0.000111	0.000124	0.000185	4.0E-05
Nickel (Ni)-Total	3	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Total	3	0.582	0.6	0.618	1.8E-02
Rubidium (Rb)-Total	3	0.00105	0.00108	0.00109	2.1E-05
Selenium (Se)-Total	3	0.000062	0.000076	0.000093	1.6E-05
Silicon (Si)-Total	3	1.29	1.43	1.43	8.1E-02
Silver (Ag)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	3	0.937	0.941	1	3.5E-02
Strontium (Sr)-Total	3	0.0253	0.0256	0.0264	5.7E-04
Sulfur (S)-Total	3	0.85	0.87	0.98	7.0E-02
Tellurium (Te)-Total	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	3	0.00001	0.00001	0.000019	5.2E-06
Thorium (Th)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	3	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	3	0.00001	0.00001	0.000011	5.8E-07
Vanadium (V)-Total	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	3	0.003	0.003	0.003	5.3E-19
Zirconium (Zr)-Total	3	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	3	0.0026	0.005	0.0102	3.9E-03
Antimony (Sb)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	3	0.0002	0.00023	0.00023	1.7E-05
Barium (Ba)-Dissolved	3	0.00607	0.00634	0.0064	1.8E-04
Beryllium (Be)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	3	0.000005	0.0000053	0.00000531	2.8E-05
Calcium (Ca)-Dissolved	3	11.6	11.6	11.9	1.7E-01
Cesium (Cs)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	3	0.0001	0.0001	0.00013	1.7E-05
Cobalt (Co)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	3	0.00058	0.00065	0.00105	2.5E-04
Iron (Fe)-Dissolved	3	0.01	0.017	0.017	4.0E-03
Lead (Pb)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	3	0.98	1.01	1.06	4.0E-02
Manganese (Mn)-Dissolved	3	0.00045	0.00045	0.00059	8.1E-05
Mercury (Hg)-Dissolved	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	3	0.000104	0.000113	0.000167	3.4E-05
Nickel (Ni)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Dissolved	3	0.584	0.591	0.593	4.7E-03
Rubidium (Rb)-Dissolved	3	0.00099	0.00107	0.00109	5.3E-05
Selenium (Se)-Dissolved	3	0.000057	0.000075	0.000079	1.2E-05
Silicon (Si)-Dissolved	3	1.18	1.31	1.39	1.1E-01
Silver (Ag)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	3	0.928	0.928	1.01	4.7E-02
Strontium (Sr)-Dissolved	3	0.0255	0.0257	0.0261	3.1E-04
Sulfur (S)-Dissolved	3	0.72	0.81	0.86	7.1E-02
Tellurium (Te)-Dissolved	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	3	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	3	0.0017	0.0024	0.0036	9.6E-04
Zirconium (Zr)-Dissolved	3	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 11 - STORM2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	9.81	10.68	11.55	1.2E+00
EC (uS/cm)	0	0	#NUM!	0	#DIV/0!
Dissolved Oxygen (%)	1	101.3	101.3	101.3	#DIV/0!
Dissolved Oxygen (mg/L)	0	0	#NUM!	0	#DIV/0!
pH	0	0	#NUM!	0	#DIV/0!
ORP	0	0	#NUM!	0	#DIV/0!
Depth (m)	2		-	12	2.8E+00
Physical Tests					
Conductivity (EC)	2	72.8	72.95	73.1	2.1E-01
Hardness (as CaCO3)	2	33.1	33.4	33.7	4.2E-01
pH	2	7.35	7.37	7.39	2.8E-02
Total Suspended Solids	2	1	1.65	2.3	9.2E-01
Total Dissolved Solids	2	53	53	53	0.0E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2	2.6	3.2	8.5E-01
Alkalinity, Total (as CaCO3)	2	35.2	35.45	35.7	3.5E-01
Ammonia, Total (as N)	2	0.02	0.0245	0.029	6.4E-03
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	0.41	0.425	0.44	2.1E-02
Fluoride (F)	2	0.02	0.021	0.022	1.4E-03
Nitrate (as N)	2	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.25	0.255	0.26	7.1E-03
Total Nitrogen	2	0.25	0.255	0.26	7.1E-03
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0063	0.00665	0.007	4.9E-04
Sulfate (SO4)	2	2.53	2.71	2.89	2.5E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	4.7	4.9	5.1	2.8E-01
Total Organic Carbon	2	5.1	5.15	5.2	7.1E-02
Total Metals					
Aluminum (Al)-Total	2	0.0111	0.01145	0.0118	4.8E-04
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.00023	0.000255	0.00028	3.5E-05
Barium (Ba)-Total	2	0.00646	0.007065	0.00767	8.6E-04
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.000005	0.00001735	0.0000297	1.7E-05
Calcium (Ca)-Total	2	11.8	11.85	11.9	7.1E-02
Cesium (Cs)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Total	2	0.0001	0.00011	0.00012	1.4E-05
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.00079	0.000795	0.0008	7.1E-06
Iron (Fe)-Total	2	0.01	0.0165	0.023	9.2E-03
Lead (Pb)-Total	2	0.00005	0.0000505	0.000051	7.1E-07
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.977	1.0185	1.06	5.9E-02
Manganese (Mn)-Total	2	0.00213	0.003535	0.00494	2.0E-03
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.000111	0.000126	0.000141	2.1E-05
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.613	0.6235	0.634	1.5E-02
Rubidium (Rb)-Total	2	0.00111	0.00112	0.00113	1.4E-05
Selenium (Se)-Total	2	0.000066	0.0000845	0.000103	2.6E-05
Silicon (Si)-Total	2	1.34	1.45	1.56	1.6E-01
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	0.936	0.941	0.946	7.1E-03
Strontium (Sr)-Total	2	0.0259	0.02605	0.0262	2.1E-04
Sulfur (S)-Total	2	0.79	0.82	0.85	4.2E-02
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.0000155	0.000021	7.8E-06
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.000345	0.00039	6.4E-05
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.002	0.0031	0.0042	1.6E-03
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.0002	0.000205	0.00021	7.1E-06
Barium (Ba)-Dissolved	2	0.00651	0.00654	0.00657	4.2E-05
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000013	0.0000297	0.0000464	2.4E-05
Calcium (Ca)-Dissolved	2	11.6	11.7	11.8	1.4E-01
Cesium (Cs)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.00061	0.000775	0.00094	2.3E-04
Iron (Fe)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Lead (Pb)-Dissolved	2	0.00005	0.000093	0.000136	6.1E-05
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	1.01	1.02	1.03	1.4E-02
Manganese (Mn)-Dissolved	2	0.00047	0.00047	0.00047	0.0E+00
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.000107	0.000121	0.000135	2.0E-05
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.596	0.6	0.604	5.7E-03
Rubidium (Rb)-Dissolved	2	0.00102	0.00106	0.0011	5.7E-05
Selenium (Se)-Dissolved	2	0.000078	0.000081	0.000084	4.2E-06
Silicon (Si)-Dissolved	2	1.4	1.415	1.43	2.1E-02
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	0.924	0.948	0.972	3.4E-02
Strontium (Sr)-Dissolved	2	0.0251	0.0253	0.0255	2.8E-04
Sulfur (S)-Dissolved	2	0.7	0.795	0.89	1.3E-01
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.0036	0.0046	0.0056	1.4E-03
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:
1. Units are mg/L unless stated otherwise

Table 12 - STORM3

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	5.7	6.85	8	1.6E+00
EC (uS/cm)	0	0	#NUM!	0	#DIV/0!
Dissolved Oxygen (%)	1	92.8	92.8	92.8	#DIV/0!
Dissolved Oxygen (mg/L)	0	0	#NUM!	0	#DIV/0!
pH	0	0	#NUM!	0	#DIV/0!
ORP	0	0	#NUM!	0	#DIV/0!
Depth (m)	2		-	24	1.4E+00
Physical Tests					
Conductivity (EC)	2	72.7	73	73.3	4.2E-01
Hardness (as CaCO3)	2	33.4	33.45	33.5	7.1E-02
pH	2	7.25	7.325	7.4	1.1E-01
Total Suspended Solids	2	1	1.6	2.2	8.5E-01
Total Dissolved Solids	2	48	50.5	53	3.5E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2.2	3.35	4.5	1.6E+00
Alkalinity, Total (as CaCO3)	2	34.9	35	35.1	1.4E-01
Ammonia, Total (as N)	2	0.02	0.1035	0.187	1.2E-01
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	0.42	0.44	0.46	2.8E-02
Fluoride (F)	2	0.02	0.021	0.022	1.4E-03
Nitrate (as N)	2	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.25	0.25	0.25	0.0E+00
Total Nitrogen	2	0.25	0.25	0.25	0.0E+00
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0062	0.0063	0.0064	1.4E-04
Sulfate (SO4)	2	2.67	2.885	3.1	3.0E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	4.8	4.85	4.9	7.1E-02
Total Organic Carbon	2	4.6	4.75	4.9	2.1E-01
Total Metals					
Aluminum (Al)-Total	2	0.0082	0.01445	0.0207	8.8E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.00024	0.000245	0.00025	7.1E-06
Barium (Ba)-Total	2	0.00633	0.006375	0.00642	6.4E-05
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Calcium (Ca)-Total	2	11.3	11.7	12.1	5.7E-01
Cesium (Cs)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Total	2	0.0001	0.00011	0.00012	1.4E-05
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.00071	0.00082	0.00093	1.6E-04
Iron (Fe)-Total	2	0.01	0.0175	0.025	1.1E-02
Lead (Pb)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.976	1.023	1.07	6.6E-02
Manganese (Mn)-Total	2	0.00255	0.00375	0.00495	1.7E-03
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.000105	0.0001085	0.000112	4.9E-06
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.606	0.609	0.612	4.2E-03
Rubidium (Rb)-Total	2	0.00102	0.001065	0.00111	6.4E-05
Selenium (Se)-Total	2	0.000087	0.00009	0.000093	4.2E-06
Silicon (Si)-Total	2	1.49	1.665	1.84	2.5E-01
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	0.911	0.924	0.937	1.8E-02
Strontium (Sr)-Total	2	0.0245	0.0253	0.0261	1.1E-03
Sulfur (S)-Total	2	0.67	1.06	1.45	5.5E-01
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.0007	0.0011	5.7E-04
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.002	0.00205	0.0021	7.1E-05
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00021	0.000215	0.00022	7.1E-06
Barium (Ba)-Dissolved	2	0.00622	0.006335	0.00645	1.6E-04
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000005	0.00000555	0.0000061	7.8E-07
Calcium (Ca)-Dissolved	2	11.7	11.7	11.7	0.0E+00
Cesium (Cs)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.00058	0.00082	0.00106	3.4E-04
Iron (Fe)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Lead (Pb)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	1.03	1.035	1.04	7.1E-03
Manganese (Mn)-Dissolved	2	0.00016	0.000645	0.00113	6.9E-04
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.000111	0.000116	0.000121	7.1E-06
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.589	0.601	0.613	1.7E-02
Rubidium (Rb)-Dissolved	2	0.00109	0.001095	0.0011	7.1E-06
Selenium (Se)-Dissolved	2	0.000055	0.0000715	0.000088	2.3E-05
Silicon (Si)-Dissolved	2	1.49	1.67	1.85	2.5E-01
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	0.894	0.93	0.966	5.1E-02
Strontium (Sr)-Dissolved	2	0.0253	0.02545	0.0256	2.1E-04
Sulfur (S)-Dissolved	2	0.74	0.79	0.84	7.1E-02
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.0015	0.00275	0.004	1.8E-03
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:
1. Units are mg/L unless stated otherwise

Table 13 - SL4

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	16.74	19.395	22.05	3.8E+00
EC (uS/cm)	1	73	73	73	#DIV/0!
Dissolved Oxygen (%)	2	95.3	102.75	110.2	1.1E+01
Dissolved Oxygen (mg/L)	2	8.32	9.51	10.7	1.7E+00
pH	2	7.61	7.63	7.65	2.8E-02
ORP	2	129.6	148.8	168	2.7E+01
Depth (m)	0	-	-	-	#DIV/0!
Physical Tests					
Conductivity (EC)	2	72.7	72.8	72.9	1.4E-01
Hardness (as CaCO3)	2	32.6	32.95	33.3	4.9E-01
pH	2	7.55	7.68	7.81	1.8E-01
Total Suspended Solids	2	1	1	1	0.0E+00
Total Dissolved Solids	2	50	51.5	53	2.1E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2	2	2	0.0E+00
Alkalinity, Total (as CaCO3)	2	34.8	35.05	35.3	3.5E-01
Ammonia, Total (as N)	2	0.022	0.026	0.03	5.7E-03
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	0.43	0.485	0.54	7.8E-02
Fluoride (F)	2	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	2	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.2	0.225	0.25	3.5E-02
Total Nitrogen	2	0.2	0.225	0.25	3.5E-02
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0054	0.006	0.0066	8.5E-04
Sulfate (SO4)	2	2.7	2.78	2.86	1.1E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	4.9	5.25	5.6	4.9E-01
Total Organic Carbon	2	4.8	4.95	5.1	2.1E-01
Total Metals					
Aluminum (Al)-Total	2	0.0059	0.0087	0.0115	4.0E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.00024	0.000265	0.00029	3.5E-05
Barium (Ba)-Total	2	0.00638	0.00644	0.0065	8.5E-05
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.000005	0.000063	0.000121	8.2E-05
Calcium (Ca)-Total	2	11.8	12.05	12.3	3.5E-01
Cesium (Cs)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Total	2	0.00018	0.00028	0.00038	1.4E-04
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.00062	0.000675	0.00073	7.8E-05
Iron (Fe)-Total	2	0.014	0.0165	0.019	3.5E-03
Lead (Pb)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	1.02	1.05	1.08	4.2E-02
Manganese (Mn)-Total	2	0.00326	0.00338	0.0035	1.7E-04
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.000121	0.0001275	0.000134	9.2E-06
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.587	0.597	0.607	1.4E-02
Rubidium (Rb)-Total	2	0.00107	0.0011	0.00113	4.2E-05
Selenium (Se)-Total	2	0.000057	0.0000665	0.000076	1.3E-05
Silicon (Si)-Total	2	1.32	1.38	1.44	8.5E-02
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	0.969	0.979	0.989	1.4E-02
Strontium (Sr)-Total	2	0.0257	0.0265	0.0273	1.1E-03
Sulfur (S)-Total	2	0.79	0.845	1.1	2.2E-01
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.000335	0.00037	4.9E-05
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.00001	0.000011	0.000012	1.4E-06
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.002	0.002	0.002	0.0E+00
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00021	0.00021	0.00021	0.0E+00
Barium (Ba)-Dissolved	2	0.00599	0.006095	0.0062	1.5E-04
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000005	0.0000087	0.0000124	5.2E-06
Calcium (Ca)-Dissolved	2	11.5	11.6	11.7	1.4E-01
Cesium (Cs)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.00053	0.00055	0.00057	2.8E-05
Iron (Fe)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Lead (Pb)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	0.958	0.984	1.01	3.7E-02
Manganese (Mn)-Dissolved	2	0.00027	0.000315	0.00036	6.4E-05
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.000103	0.0001055	0.000108	3.5E-06
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.582	0.584	0.586	2.8E-03
Rubidium (Rb)-Dissolved	2	0.00101	0.001035	0.00106	3.5E-05
Selenium (Se)-Dissolved	2	0.000056	0.0000665	0.000077	1.5E-05
Silicon (Si)-Dissolved	2	1.19	1.255	1.32	9.2E-02
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	0.928	0.9445	0.961	2.3E-02
Strontium (Sr)-Dissolved	2	0.0246	0.02505	0.0255	6.4E-04
Sulfur (S)-Dissolved	2	0.72	0.765	0.81	6.4E-02
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 14 - SL5

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.1	20.87	22.03	6.0E+00
EC (uS/cm)	3	54	55	57	1.5E+00
Dissolved Oxygen (%)	3	91.7	98.2	100.1	4.4E+00
Dissolved Oxygen (mg/L)	3	8.02	8.94	10.61	1.3E+00
pH	3	6.9	7.03	7.4	2.6E-01
ORP	3	74.5	154.5	234.7	8.0E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	54.7	56.25	66.9	5.7E+00
Hardness (as CaCO3)	4	23.3	24.75	25.8	1.1E+00
pH	4	7.16	7.25	7.29	5.7E-02
Total Suspended Solids	4	1	1.5	2.8	7.7E-01
Total Dissolved Solids	4	46	48.5	58	5.4E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.4	2.85	4.7	1.0E+00
Alkalinity, Total (as CaCO3)	4	21.6	24.7	26.8	2.3E+00
Ammonia, Total (as N)	4	0.02	0.02	0.025	2.5E-03
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.31	0.35	1.25	4.6E-01
Fluoride (F)	4	0.02	0.022	0.036	7.4E-03
Nitrate (as N)	4	0.02	0.02	0.022	1.0E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.27	0.38	0.43	7.5E-02
Total Nitrogen	4	0.29	0.38	0.43	6.7E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.006	0.00915	0.0107	2.2E-03
Sulfate (SO4)	4	2.74	3.45	7.9	2.4E+00
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	9.6	10.6	11.2	6.7E-01
Total Organic Carbon	4	9.1	11	11.4	1.0E+00
Total Metals					
Aluminum (Al)-Total	4	0.0147	0.02265	0.273	1.3E-01
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.0002	0.0002	0.00023	1.5E-05
Barium (Ba)-Total	4	0.0098	0.01095	0.0113	6.7E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.0000056	0.0000245	9.6E-06
Calcium (Ca)-Total	4	8.16	8.425	8.61	2.1E-01
Cesium (Cs)-Total	4	0.00001	0.00001	0.000025	7.5E-06
Chromium (Cr)-Total	4	0.00016	0.00021	0.00031	6.3E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.00061	2.6E-04
Copper (Cu)-Total	4	0.0006	0.00077	0.00148	3.9E-04
Iron (Fe)-Total	4	0.201	0.2275	0.322	5.7E-02
Lead (Pb)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.966	1	1.01	1.9E-02
Manganese (Mn)-Total	4	0.0276	0.03725	0.055	1.2E-02
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.000051	0.000053	0.000061	4.5E-06
Nickel (Ni)-Total	4	0.00069	0.00073	0.00166	4.7E-04
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	1.26	1.415	1.54	1.3E-01
Rubidium (Rb)-Total	4	0.00177	0.00186	0.00201	1.1E-04
Selenium (Se)-Total	4	0.00006	0.000088	0.000091	1.5E-05
Silicon (Si)-Total	4	3.39	3.57	3.79	1.6E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	1.39	1.425	1.64	1.2E-01
Strontium (Sr)-Total	4	0.022	0.0237	0.0241	9.5E-04
Sulfur (S)-Total	4	0.84	1.07	2.61	8.3E-01
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.00036	0.000395	0.00042	2.5E-05
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.000012	0.000031	9.9E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.0038	0.0047	9.5E-04
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0105	0.0151	0.17	7.8E-02
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00013	0.00018	0.0002	3.4E-05
Barium (Ba)-Dissolved	4	0.0095	0.0103	0.0106	4.7E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.0000052	0.0000054	2.3E-07
Calcium (Ca)-Dissolved	4	7.92	8.195	8.71	3.5E-01
Cesium (Cs)-Dissolved	4	0.00001	0.00001	0.000025	7.5E-06
Chromium (Cr)-Dissolved	4	0.0001	0.000125	0.00018	3.4E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.00055	2.3E-04
Copper (Cu)-Dissolved	4	0.0005	0.000705	0.00138	3.9E-04
Iron (Fe)-Dissolved	4	0.118	0.149	0.215	4.1E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.854	0.989	1.1	1.0E-01
Manganese (Mn)-Dissolved	4	0.00787	0.01455	0.0514	2.1E-02
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.000054	2.0E-06
Nickel (Ni)-Dissolved	4	0.00061	0.000655	0.00153	4.5E-04
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	1.23	1.42	1.53	1.2E-01
Rubidium (Rb)-Dissolved	4	0.00163	0.001825	0.00198	1.7E-04
Selenium (Se)-Dissolved	4	0.00005	0.0000645	0.000081	1.6E-05
Silicon (Si)-Dissolved	4	3.22	3.635	3.92	3.5E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	1.27	1.43	1.9	2.7E-01
Strontium (Sr)-Dissolved	4	0.0207	0.0222	0.0234	1.1E-03
Sulfur (S)-Dissolved	4	0.72	0.9	2.54	8.5E-01
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.00001	0.000024	7.0E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.0036	0.0307	1.4E-02
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.000067	3.5E-06

Notes:

1. Units are mg/L unless stated otherwise

Table 15 - SL6

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.08	23.1	24.57	7.4E+00
EC (uS/cm)	3	67	68	72	2.6E+00
Dissolved Oxygen (%)	3	100	100.6	103	1.6E+00
Dissolved Oxygen (mg/L)	3	8.38	8.67	11.15	1.5E+00
pH	3	7.07	7.24	7.39	1.6E-01
ORP	2	150.5	154.1	157.7	5.1E+00
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	38.9	64.1	69.1	1.4E+01
Hardness (as CaCO3)	4	17.6	23.8	28.2	4.4E+00
pH	4	7	7.27	7.42	1.8E-01
Total Suspended Solids	4	1	2.9	4.5	1.7E+00
Total Dissolved Solids	4	38	49.5	67	1.2E+01
Anions and Nutrients					
Acidity (as CaCO3)	4	2.3	3	4.2	8.3E-01
Alkalinity, Total (as CaCO3)	4	20	22.6	28	3.4E+00
Ammonia, Total (as N)	4	0.02	0.0225	0.064	2.1E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	3.11	3.34	4.56	6.6E-01
Fluoride (F)	4	0.02	0.02	0.021	5.0E-04
Nitrate (as N)	4	0.02	0.02	0.022	1.0E-03
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.27	0.415	0.46	8.8E-02
Total Nitrogen	4	0.29	0.415	0.46	7.9E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0074	0.01085	0.0149	3.4E-03
Sulfate (SO4)	4	2.35	2.475	3.46	5.3E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	8.6	9.6	13.5	2.2E+00
Total Organic Carbon	4	8.2	10.25	12	1.7E+00
Total Metals					
Aluminum (Al)-Total	4	0.0213	0.0239	0.0711	2.4E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00018	0.000215	0.00025	3.1E-05
Barium (Ba)-Total	4	0.00505	0.01275	0.0148	4.4E-03
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.00000565	0.0000069	9.6E-07
Calcium (Ca)-Total	4	5.97	8.42	9.87	1.7E+00
Cesium (Cs)-Total	4	0.00001	0.000012	0.00003	9.5E-06
Chromium (Cr)-Total	4	0.00015	0.000165	0.0003	7.1E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.00066	0.000735	0.00093	1.3E-04
Iron (Fe)-Total	4	0.43	0.4805	0.733	1.4E-01
Lead (Pb)-Total	4	0.00005	0.00005	0.000089	2.0E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.73	0.805	0.984	1.1E-01
Manganese (Mn)-Total	4	0.0233	0.0268	0.0349	5.2E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.000056	0.000084	0.00116	5.4E-04
Nickel (Ni)-Total	4	0.0005	0.0005	0.00052	1.0E-05
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.331	1.22	1.38	4.8E-01
Rubidium (Rb)-Total	4	0.00159	0.001975	0.00214	2.6E-04
Selenium (Se)-Total	4	0.00005	0.0000695	0.000082	1.5E-05
Silicon (Si)-Total	4	1.72	2.25	2.97	5.6E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.792	2.51	3.02	1.0E+00
Strontium (Sr)-Total	4	0.0171	0.0209	0.0242	3.0E-03
Sulfur (S)-Total	4	0.5	0.79	0.94	2.0E-01
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.00031	0.000585	0.0025	1.0E-03
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.0000205	0.000027	7.6E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.0058	1.4E-03
Zirconium (Zr)-Total	4	0.00006	0.00007	0.000088	1.2E-05
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0058	0.01465	0.0231	8.0E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00014	0.00018	0.00022	3.7E-05
Barium (Ba)-Dissolved	4	0.00533	0.01155	0.0138	3.6E-03
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.0000125	3.8E-06
Calcium (Ca)-Dissolved	4	5.8	8.25	9.77	1.7E+00
Cesium (Cs)-Dissolved	4	0.00001	0.00001	0.000031	1.1E-05
Chromium (Cr)-Dissolved	4	0.0001	0.000125	0.00023	5.9E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00055	0.000605	0.00066	5.3E-05
Iron (Fe)-Dissolved	4	0.218	0.2785	0.449	1.0E-01
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.763	0.7725	0.933	8.2E-02
Manganese (Mn)-Dissolved	4	0.00256	0.01121	0.0249	1.1E-02
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00107	5.1E-04
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.342	1.225	1.32	4.6E-01
Rubidium (Rb)-Dissolved	4	0.00161	0.00191	0.00206	1.9E-04
Selenium (Se)-Dissolved	4	0.00005	0.0000535	0.000064	6.4E-06
Silicon (Si)-Dissolved	4	1.58	2.225	3	5.8E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.822	2.53	2.85	9.2E-01
Strontium (Sr)-Dissolved	4	0.0163	0.0188	0.0229	2.8E-03
Sulfur (S)-Dissolved	4	0.5	0.7	0.88	1.8E-01
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00038	4.0E-05
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.0000165	0.00002	4.2E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00715	0.0258	1.2E-02
Zirconium (Zr)-Dissolved	4	0.00006	0.0000625	0.000084	1.1E-05

Notes:

1. Units are mg/L unless stated otherwise



Table 16 - WL2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	10.01	18.77	22.08	5.6E+00
EC (uS/cm)	4	22	32.5	35	5.8E+00
Dissolved Oxygen (%)	4	89.9	98.2	101.2	5.2E+00
Dissolved Oxygen (mg/L)	4	7.97	9.35	10.8	1.3E+00
pH	4	6.31	7.12	7.57	5.4E-01
ORP	4	134.5	185.85	211.9	3.6E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	31.4	33.35	35.4	1.6E+00
Hardness (as CaCO3)	4	14.1	14.85	15.7	7.5E-01
pH	4	6.99	7.025	7.14	6.8E-02
Total Suspended Solids	4	1	1.55	7.6	3.1E+00
Total Dissolved Solids	4	28	35	47	8.5E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2	2.35	2.5	2.2E-01
Alkalinity, Total (as CaCO3)	4	11.9	13.35	14.7	1.2E+00
Ammonia, Total (as N)	4	0.02	0.02	0.02	0.0E+00
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.17	0.175	0.2	1.4E-02
Fluoride (F)	4	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.2	0.245	0.25	2.4E-02
Total Nitrogen	4	0.2	0.245	0.25	2.4E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0046	0.007	0.0083	1.6E-03
Sulfate (SO4)	4	1.6	2.14	3	6.5E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	7.5	7.75	8.8	5.9E-01
Total Organic Carbon	4	7.5	8.3	9	7.8E-01
Total Metals					
Aluminum (Al)-Total	4	0.0217	0.03525	0.0589	1.6E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00024	0.000255	0.00026	9.6E-06
Barium (Ba)-Total	4	0.00402	0.00458	0.00482	3.5E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Calcium (Ca)-Total	4	4.68	5.08	5.5	3.6E-01
Cesium (Cs)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Total	4	0.00018	0.00019	0.00026	3.8E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.00066	0.00071	0.00077	6.1E-05
Iron (Fe)-Total	4	0.077	0.091	0.133	2.4E-02
Lead (Pb)-Total	4	0.00005	0.00005	0.000052	1.0E-06
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.584	0.623	0.648	2.7E-02
Manganese (Mn)-Total	4	0.00792	0.00944	0.0136	2.6E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.377	0.4075	0.43	2.5E-02
Rubidium (Rb)-Total	4	0.00116	0.00118	0.00126	4.5E-05
Selenium (Se)-Total	4	0.000075	0.0000865	0.000111	1.7E-05
Silicon (Si)-Total	4	0.57	0.93	1.11	2.3E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.656	0.703	0.759	4.2E-02
Strontium (Sr)-Total	4	0.0103	0.01065	0.0114	5.1E-04
Sulfur (S)-Total	4	0.5	0.59	0.67	7.7E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.00058	0.00083	2.6E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000012	0.0000135	0.000017	2.2E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0172	0.0204	0.0399	1.0E-02
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00021	0.00022	0.00023	8.2E-06
Barium (Ba)-Dissolved	4	0.0042	0.004275	0.00483	3.0E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.0000111	3.1E-06
Calcium (Ca)-Dissolved	4	4.64	4.965	5.29	2.9E-01
Cesium (Cs)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Chromium (Cr)-Dissolved	4	0.0001	0.000105	0.00015	2.4E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00048	0.00056	0.00082	1.5E-04
Iron (Fe)-Dissolved	4	0.039	0.044	0.078	1.8E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.000075	1.3E-05
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.591	0.606	0.619	1.2E-02
Manganese (Mn)-Dissolved	4	0.00235	0.00458	0.0096	3.1E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.37	0.4005	0.432	2.9E-02
Rubidium (Rb)-Dissolved	4	0.00117	0.00121	0.00123	2.5E-05
Selenium (Se)-Dissolved	4	0.000054	0.0000605	0.000071	7.0E-06
Silicon (Si)-Dissolved	4	0.489	0.8815	1.03	2.3E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.666	0.684	0.77	4.9E-02
Strontium (Sr)-Dissolved	4	0.0101	0.0103	0.0108	3.1E-04
Sulfur (S)-Dissolved	4	0.5	0.575	0.58	3.9E-02
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00039	4.5E-05
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.000011	0.000017	3.2E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00335	0.0233	1.1E-02
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 17 - BL1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	12.73	18.605	27.7	6.8E+00
EC (uS/cm)	4	18.92	29	33	6.0E+00
Dissolved Oxygen (%)	4	28	100.25	109.3	3.8E+01
Dissolved Oxygen (mg/L)	4	8.07	9.85	110.5	5.1E+01
pH	4	6.81	7.305	7.51	3.3E-01
ORP	4	165.2	198.25	1138	4.8E+02
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	28.6	28.85	29.4	3.6E-01
Hardness (as CaCO3)	4	10.9	11.3	12	4.6E-01
pH	4	6.93	6.955	6.97	1.7E-02
Total Suspended Solids	4	1	1.05	1.8	3.9E-01
Total Dissolved Solids	4	25	32.5	44	8.3E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2	2.3	2.4	1.9E-01
Alkalinity, Total (as CaCO3)	4	9.9	9.9	10.7	4.0E-01
Ammonia, Total (as N)	4	0.02	0.0215	0.074	2.7E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.94	0.99	1.02	3.7E-02
Fluoride (F)	4	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.25	0.315	0.36	4.7E-02
Total Nitrogen	4	0.25	0.315	0.36	4.7E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0054	0.0061	0.0066	5.9E-04
Sulfate (SO4)	4	1.21	1.41	1.81	2.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	8.4	8.65	9.1	3.2E-01
Total Organic Carbon	4	8.6	8.85	9	1.7E-01
Total Metals					
Aluminum (Al)-Total	4	0.0245	0.03205	0.139	5.5E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.0002	0.000225	0.00025	2.1E-05
Barium (Ba)-Total	4	0.00395	0.00474	0.00558	1.1E-03
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.0000089	0.00001555	0.0000349	1.1E-05
Calcium (Ca)-Total	4	3.6	3.685	3.8	8.2E-02
Cesium (Cs)-Total	4	0.000016	0.000018	0.000029	6.0E-06
Chromium (Cr)-Total	4	0.00017	0.000265	0.00047	1.3E-04
Cobalt (Co)-Total	4	0.0001	0.0001	0.00013	1.5E-05
Copper (Cu)-Total	4	0.00069	0.00079	0.00097	1.2E-04
Iron (Fe)-Total	4	0.072	0.1	0.514	2.1E-01
Lead (Pb)-Total	4	0.00005	0.000082	0.000155	4.6E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.59	0.6215	0.689	4.3E-02
Manganese (Mn)-Total	4	0.00631	0.01405	0.0238	7.2E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.000055	2.5E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.00056	3.0E-05
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.511	0.5475	0.58	3.5E-02
Rubidium (Rb)-Total	4	0.00172	0.001845	0.0021	1.6E-04
Selenium (Se)-Total	4	0.000059	0.000068	0.000088	1.4E-05
Silicon (Si)-Total	4	1.75	1.84	1.86	5.0E-02
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	1.17	1.235	1.26	3.9E-02
Strontium (Sr)-Total	4	0.0108	0.01095	0.0119	5.1E-04
Sulfur (S)-Total	4	0.5	0.5	0.56	3.0E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.00038	0.00533	2.5E-03
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.0000125	0.00002	4.3E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.00385	0.0049	8.6E-04
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0164	0.02105	0.0227	2.8E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00017	0.00018	0.00021	1.9E-05
Barium (Ba)-Dissolved	4	0.00407	0.004615	0.0051	4.2E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.00000702	3.3E-05
Calcium (Ca)-Dissolved	4	3.41	3.57	3.72	1.3E-01
Cesium (Cs)-Dissolved	4	0.000015	0.0000155	0.000017	9.6E-07
Chromium (Cr)-Dissolved	4	0.00013	0.000135	0.00016	1.4E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.0005	0.00054	0.00073	1.0E-04
Iron (Fe)-Dissolved	4	0.048	0.053	0.063	6.3E-03
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.000119	3.5E-05
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.57	0.586	0.65	3.7E-02
Manganese (Mn)-Dissolved	4	0.00301	0.00432	0.00678	1.7E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.502	0.5175	0.553	2.2E-02
Rubidium (Rb)-Dissolved	4	0.00179	0.001835	0.00204	1.1E-04
Selenium (Se)-Dissolved	4	0.00005	0.0000575	0.000066	9.0E-06
Silicon (Si)-Dissolved	4	1.63	1.75	1.83	8.3E-02
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	1.09	1.17	1.25	7.0E-02
Strontium (Sr)-Dissolved	4	0.0103	0.0104	0.0113	4.7E-04
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.00038	4.0E-05
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.00001	0.000011	5.0E-07
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00555	0.0161	7.2E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 18 - BL2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	22.08	23.16	24.24	1.5E+00
EC (uS/cm)	2	29	29	29	0.0E+00
Dissolved Oxygen (%)	2	99.7	102.15	104.6	3.5E+00
Dissolved Oxygen (mg/L)	2	8.36	8.73	9.1	5.2E-01
pH	2	7	7.22	7.44	3.1E-01
ORP	2	135.7	167.45	199.2	4.5E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	2	28.8	29.2	29.6	5.7E-01
Hardness (as CaCO3)	2	10.5	10.95	11.4	6.4E-01
pH	2	7.03	7.155	7.28	1.8E-01
Total Suspended Solids	2	1	1.2	1.4	2.8E-01
Total Dissolved Solids	2	29	31.5	34	3.5E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2.2	2.35	2.5	2.1E-01
Alkalinity, Total (as CaCO3)	2	10.4	10.65	10.9	3.5E-01
Ammonia, Total (as N)	2	0.02	0.02	0.02	0.0E+00
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	1.03	1.065	1.1	4.9E-02
Fluoride (F)	2	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	2	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.26	0.265	0.27	7.1E-03
Total Nitrogen	2	0.26	0.265	0.27	7.1E-03
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.003	0.00805	0.0131	7.1E-03
Sulfate (SO4)	2	1.16	1.435	1.71	3.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	7.4	7.45	7.5	7.1E-02
Total Organic Carbon	2	7.4	7.55	7.7	2.1E-01
Total Metals					
Aluminum (Al)-Total	2	0.0158	0.02125	0.0267	7.7E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.0002	0.00021	0.00022	1.4E-05
Barium (Ba)-Total	2	0.00449	0.00468	0.00487	2.7E-04
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.0000145	0.00041375	0.000813	5.6E-04
Calcium (Ca)-Total	2	3.57	3.61	3.65	5.7E-02
Cesium (Cs)-Total	2	0.000014	0.000015	0.000016	1.4E-06
Chromium (Cr)-Total	2	0.0002	0.000215	0.00023	2.1E-05
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.00061	0.000635	0.00066	3.5E-05
Iron (Fe)-Total	2	0.025	0.063	0.101	5.4E-02
Lead (Pb)-Total	2	0.00005	0.000066	0.000082	2.3E-05
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.592	0.614	0.636	3.1E-02
Manganese (Mn)-Total	2	0.00596	0.01278	0.0196	9.6E-03
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.00005	0.000053	0.000056	4.2E-06
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.528	0.529	0.53	1.4E-03
Rubidium (Rb)-Total	2	0.00198	0.001995	0.00201	2.1E-05
Selenium (Se)-Total	2	0.000065	0.000075	0.000085	1.4E-05
Silicon (Si)-Total	2	1.68	1.765	1.85	1.2E-01
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	1.24	1.26	1.28	2.8E-02
Strontium (Sr)-Total	2	0.0108	0.01105	0.0113	3.5E-04
Sulfur (S)-Total	2	0.5	0.735	0.97	3.3E-01
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.000155	0.00021	7.8E-05
Titanium (Ti)-Total	2	0.0003	0.00036	0.00042	8.5E-05
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.000012	0.0000125	0.000013	7.1E-07
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.0043	0.0056	1.8E-03
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.0117	0.0121	0.0125	5.7E-04
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00015	0.00017	0.00019	2.8E-05
Barium (Ba)-Dissolved	2	0.00456	0.004665	0.00477	1.5E-04
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000005	0.0000118	0.0000186	9.6E-06
Calcium (Ca)-Dissolved	2	3.27	3.395	3.52	1.8E-01
Cesium (Cs)-Dissolved	2	0.000013	0.0000135	0.000014	7.1E-07
Chromium (Cr)-Dissolved	2	0.00012	0.00014	0.00016	2.8E-05
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.0005	0.00052	0.00054	2.8E-05
Iron (Fe)-Dissolved	2	0.011	0.0235	0.036	1.8E-02
Lead (Pb)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	0.564	0.599	0.634	4.9E-02
Manganese (Mn)-Dissolved	2	0.00086	0.00184	0.00282	1.4E-03
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.527	0.5455	0.564	2.6E-02
Rubidium (Rb)-Dissolved	2	0.00181	0.001815	0.00182	7.1E-06
Selenium (Se)-Dissolved	2	0.00005	0.0000585	0.000067	1.2E-05
Silicon (Si)-Dissolved	2	1.64	1.65	1.66	1.4E-02
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	1.14	1.185	1.23	6.4E-02
Strontium (Sr)-Dissolved	2	0.0102	0.01055	0.0109	4.9E-04
Sulfur (S)-Dissolved	2	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.0000135	0.000017	4.9E-06
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.0014	0.0037	0.006	3.3E-03
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise



Table 19 - BEAK1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	20.88	21.61	22.34	1.0E+00
EC (uS/cm)	1	-	29	-	#DIV/0!
Dissolved Oxygen (%)	1	-	101.6	-	#DIV/0!
Dissolved Oxygen (mg/L)	1	-	7.08	-	#DIV/0!
pH	1	-	7.4	-	#DIV/0!
ORP	1	-	109	-	#DIV/0!
Depth (m)	1	-	-	-	-
Physical Tests					
Conductivity (EC)	2	28.9	29.1	29.3	2.8E-01
Hardness (as CaCO3)	2	10.8	10.9	11	1.4E-01
pH	2	7.02	7.22	7.42	2.8E-01
Total Suspended Solids	2	1	1	1	0.0E+00
Total Dissolved Solids	2	30	33.5	37	4.9E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2	2.05	2.1	7.1E-02
Alkalinity, Total (as CaCO3)	2	10	10.6	11.2	8.5E-01
Ammonia, Total (as N)	2	0.02	0.02	0.02	0.0E+00
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	1.04	1.1	1.16	8.5E-02
Fluoride (F)	2	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	2	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.25	0.285	0.32	4.9E-02
Total Nitrogen	2	0.25	0.285	0.32	4.9E-02
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0034	0.0067	0.01	4.7E-03
Sulfate (SO4)	2	1.23	1.415	1.6	2.6E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	7	7.65	8.3	9.2E-01
Total Organic Carbon	2	7.8	7.85	7.9	7.1E-02
Total Metals					
Aluminum (Al)-Total	2	0.0152	0.01685	0.0185	2.3E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Barium (Ba)-Total	2	0.00439	0.004615	0.00484	3.2E-04
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.0000054	0.00000735	0.0000093	2.8E-06
Calcium (Ca)-Total	2	3.55	3.6	3.65	7.1E-02
Cesium (Cs)-Total	2	0.000012	0.000013	0.000014	1.4E-06
Chromium (Cr)-Total	2	0.00018	0.00032	0.00046	2.0E-04
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.00058	0.000615	0.00065	4.9E-05
Iron (Fe)-Total	2	0.025	0.0535	0.082	4.0E-02
Lead (Pb)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.605	0.619	0.633	2.0E-02
Manganese (Mn)-Total	2	0.00648	0.00894	0.0114	3.5E-03
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.00005	0.0000525	0.000055	3.5E-06
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	0.519	0.525	0.531	8.5E-03
Rubidium (Rb)-Total	2	0.00192	0.00197	0.00202	7.1E-05
Selenium (Se)-Total	2	0.000067	0.0000825	0.000098	2.2E-05
Silicon (Si)-Total	2	1.7	1.75	1.8	7.1E-02
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	1.21	1.215	1.22	7.1E-03
Strontium (Sr)-Total	2	0.0106	0.01095	0.0113	4.9E-04
Sulfur (S)-Total	2	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.00001	0.000011	0.000012	1.4E-06
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.0111	0.0115	0.0119	5.7E-04
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00014	0.00017	0.0002	4.2E-05
Barium (Ba)-Dissolved	2	0.00437	0.004525	0.00468	2.2E-04
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000005	0.00000685	0.0000087	2.6E-06
Calcium (Ca)-Dissolved	2	3.4	3.405	3.41	7.1E-03
Cesium (Cs)-Dissolved	2	0.000011	0.0000125	0.000014	2.1E-06
Chromium (Cr)-Dissolved	2	0.0001	0.00015	0.0002	7.1E-05
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.00047	0.000665	0.00086	2.8E-04
Iron (Fe)-Dissolved	2	0.01	0.024	0.038	2.0E-02
Lead (Pb)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	0.562	0.5815	0.601	2.8E-02
Manganese (Mn)-Dissolved	2	0.00038	0.00153	0.00268	1.6E-03
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	0.512	0.515	0.518	4.2E-03
Rubidium (Rb)-Dissolved	2	0.0018	0.001825	0.00185	3.5E-05
Selenium (Se)-Dissolved	2	0.00005	0.000052	0.000054	2.8E-06
Silicon (Si)-Dissolved	2	1.56	1.595	1.63	4.9E-02
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	1.16	1.185	1.21	3.5E-02
Strontium (Sr)-Dissolved	2	0.0104	0.01045	0.0105	7.1E-05
Sulfur (S)-Dissolved	2	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.0051	0.00515	0.0052	7.1E-05
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise



Table 20 - BEAK2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	1	10.56	10.56	10.56	-
EC (uS/cm)	0	-	#NUM!	-	-
Dissolved Oxygen (%)	0	-	#NUM!	-	-
Dissolved Oxygen (mg/L)	0	-	#NUM!	-	-
pH	0	-	#NUM!	-	-
ORP	0	-	#NUM!	-	-
Depth (m)	1	-	-	-	-
Physical Tests					
Conductivity (EC)	1	29.4	29.4	29.4	-
Hardness (as CaCO3)	1	11.1	11.1	11.1	-
pH	1	6.68	6.68	6.68	-
Total Suspended Solids	1	1	1	1	-
Total Dissolved Solids	1	31	31	31	-
Anions and Nutrients					
Acidity (as CaCO3)	1	4.8	4.8	4.8	-
Alkalinity, Total (as CaCO3)	1	10.7	10.7	10.7	-
Ammonia, Total (as N)	1	0.02	0.02	0.02	-
Bromide (Br)	1	0.1	0.1	0.1	-
Chloride (Cl)	1	1.01	1.01	1.01	-
Fluoride (F)	1	0.02	0.02	0.02	-
Nitrate (as N)	1	0.02	0.02	0.02	-
Nitrite (as N)	1	0.01	0.01	0.01	-
Total Kjeldahl Nitrogen	1	0.25	0.25	0.25	-
Total Nitrogen	1	0.25	0.25	0.25	-
Orthophosphate-Dissolved	1	0.003	0.003	0.003	-
Phosphorus (P)-Total	1	0.005	0.005	0.005	-
Sulfate (SO4)	1	1.7	1.7	1.7	-
Organic / Inorganic Carbon					
Dissolved Organic Carbon	1	6.8	6.8	6.8	-
Total Organic Carbon	1	7.2	7.2	7.2	-
Total Metals					
Aluminum (Al)-Total	1	0.0176	0.0176	0.0176	-
Antimony (Sb)-Total	1	0.0001	0.0001	0.0001	-
Arsenic (As)-Total	1	0.00021	0.00021	0.00021	-
Barium (Ba)-Total	1	0.00531	0.00531	0.00531	-
Beryllium (Be)-Total	1	0.0001	0.0001	0.0001	-
Bismuth (Bi)-Total	1	0.00005	0.00005	0.00005	-
Boron (B)-Total	1	0.01	0.01	0.01	-
Cadmium (Cd)-Total	1	0.0000076	0.0000076	0.0000076	-
Calcium (Ca)-Total	1	3.59	3.59	3.59	-
Cesium (Cs)-Total	1	0.000014	0.000014	0.000014	-
Chromium (Cr)-Total	1	0.00023	0.00023	0.00023	-
Cobalt (Co)-Total	1	0.0001	0.0001	0.0001	-
Copper (Cu)-Total	1	0.00081	0.00081	0.00081	-
Iron (Fe)-Total	1	0.044	0.044	0.044	-
Lead (Pb)-Total	1	0.00005	0.00005	0.00005	-
Lithium (Li)-Total	1	0.001	0.001	0.001	-
Magnesium (Mg)-Total	1	0.635	0.635	0.635	-
Manganese (Mn)-Total	1	0.0111	0.0111	0.0111	-
Mercury (Hg)-Total	1	0.000005	0.000005	0.000005	-
Molybdenum (Mo)-Total	1	0.00005	0.00005	0.00005	-
Nickel (Ni)-Total	1	0.0005	0.0005	0.0005	-
Phosphorus (P)-Total	1	0.05	0.05	0.05	-
Potassium (K)-Total	1	0.541	0.541	0.541	-
Rubidium (Rb)-Total	1	0.00206	0.00206	0.00206	-
Selenium (Se)-Total	1	0.000069	0.000069	0.000069	-
Silicon (Si)-Total	1	1.89	1.89	1.89	-
Silver (Ag)-Total	1	0.00001	0.00001	0.00001	-
Sodium (Na)-Total	1	1.18	1.18	1.18	-
Strontium (Sr)-Total	1	0.0115	0.0115	0.0115	-
Sulfur (S)-Total	1	0.5	0.5	0.5	-
Tellurium (Te)-Total	1	0.0002	0.0002	0.0002	-
Thallium (Tl)-Total	1	0.00001	0.00001	0.00001	-
Thorium (Th)-Total	1	0.0001	0.0001	0.0001	-
Tin (Sn)-Total	1	0.0001	0.0001	0.0001	-
Titanium (Ti)-Total	1	0.0003	0.0003	0.0003	-
Tungsten (W)-Total	1	0.0001	0.0001	0.0001	-
Uranium (U)-Total	1	0.000011	0.000011	0.000011	-
Vanadium (V)-Total	1	0.0005	0.0005	0.0005	-
Zinc (Zn)-Total	1	0.003	0.003	0.003	-
Zirconium (Zr)-Total	1	0.00006	0.00006	0.00006	-
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	1	0.0116	0.0116	0.0116	-
Antimony (Sb)-Dissolved	1	0.0001	0.0001	0.0001	-
Arsenic (As)-Dissolved	1	0.00016	0.00016	0.00016	-
Barium (Ba)-Dissolved	1	0.00543	0.00543	0.00543	-
Beryllium (Be)-Dissolved	1	0.0001	0.0001	0.0001	-
Bismuth (Bi)-Dissolved	1	0.00005	0.00005	0.00005	-
Boron (B)-Dissolved	1	0.01	0.01	0.01	-
Cadmium (Cd)-Dissolved	1	0.0000055	0.0000055	0.0000055	-
Calcium (Ca)-Dissolved	1	3.46	3.46	3.46	-
Cesium (Cs)-Dissolved	1	0.000013	0.000013	0.000013	-
Chromium (Cr)-Dissolved	1	0.00011	0.00011	0.00011	-
Cobalt (Co)-Dissolved	1	0.0001	0.0001	0.0001	-
Copper (Cu)-Dissolved	1	0.00105	0.00105	0.00105	-
Iron (Fe)-Dissolved	1	0.012	0.012	0.012	-
Lead (Pb)-Dissolved	1	0.00005	0.00005	0.00005	-
Lithium (Li)-Dissolved	1	0.001	0.001	0.001	-
Magnesium (Mg)-Dissolved	1	0.602	0.602	0.602	-
Manganese (Mn)-Dissolved	1	0.00202	0.00202	0.00202	-
Mercury (Hg)-Dissolved	1	0.000005	0.000005	0.000005	-
Molybdenum (Mo)-Dissolved	1	0.000052	0.000052	0.000052	-
Nickel (Ni)-Dissolved	1	0.0005	0.0005	0.0005	-
Phosphorus (P)-Dissolved	1	0.05	0.05	0.05	-
Potassium (K)-Dissolved	1	0.527	0.527	0.527	-
Rubidium (Rb)-Dissolved	1	0.00186	0.00186	0.00186	-
Selenium (Se)-Dissolved	1	0.000059	0.000059	0.000059	-
Silicon (Si)-Dissolved	1	1.78	1.78	1.78	-
Silver (Ag)-Dissolved	1	0.00001	0.00001	0.00001	-
Sodium (Na)-Dissolved	1	1.17	1.17	1.17	-
Strontium (Sr)-Dissolved	1	0.0108	0.0108	0.0108	-
Sulfur (S)-Dissolved	1	0.5	0.5	0.5	-
Tellurium (Te)-Dissolved	1	0.0002	0.0002	0.0002	-
Thallium (Tl)-Dissolved	1	0.00001	0.00001	0.00001	-
Thorium (Th)-Dissolved	1	0.0001	0.0001	0.0001	-
Tin (Sn)-Dissolved	1	0.0001	0.0001	0.0001	-
Titanium (Ti)-Dissolved	1	0.0003	0.0003	0.0003	-
Tungsten (W)-Dissolved	1	0.0001	0.0001	0.0001	-
Uranium (U)-Dissolved	1	0.00001	0.00001	0.00001	-
Vanadium (V)-Dissolved	1	0.0005	0.0005	0.0005	-
Zinc (Zn)-Dissolved	1	0.002	0.002	0.002	-
Zirconium (Zr)-Dissolved	1	0.00006	0.00006	0.00006	-

Notes:

1. Units are mg/L unless stated otherwise

Table 21 - BEAK3

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	0	-	#NUM!	-	-
EC (uS/cm)	0	-	#NUM!	-	-
Dissolved Oxygen (%)	0	-	#NUM!	-	-
Dissolved Oxygen (mg/L)	0	-	#NUM!	-	-
pH	0	-	#NUM!	-	-
ORP	0	-	#NUM!	-	-
Depth (m)	1	-	-	-	-
Physical Tests					
Conductivity (EC)	1	29.4	29.4	29.4	-
Hardness (as CaCO3)	1	11.1	11.1	11.1	-
pH	1	6.66	6.66	6.66	-
Total Suspended Solids	1	5.4	5.4	5.4	-
Total Dissolved Solids	1	34	34	34	-
Anions and Nutrients					
Acidity (as CaCO3)	1	4.9	4.9	4.9	-
Alkalinity, Total (as CaCO3)	1	10.8	10.8	10.8	-
Ammonia, Total (as N)	1	0.092	0.092	0.092	-
Bromide (Br)	1	0.1	0.1	0.1	-
Chloride (Cl)	1	1.02	1.02	1.02	-
Fluoride (F)	1	0.02	0.02	0.02	-
Nitrate (as N)	1	0.02	0.02	0.02	-
Nitrite (as N)	1	0.01	0.01	0.01	-
Total Kjeldahl Nitrogen	1	0.25	0.25	0.25	-
Total Nitrogen	1	0.25	0.25	0.25	-
Orthophosphate-Dissolved	1	0.003	0.003	0.003	-
Phosphorus (P)-Total	1	0.009	0.009	0.009	-
Sulfate (SO4)	1	1.58	1.58	1.58	-
Organic / Inorganic Carbon					
Dissolved Organic Carbon	1	6.8	6.8	6.8	-
Total Organic Carbon	1	7.2	7.2	7.2	-
Total Metals					
Aluminum (Al)-Total	1	0.0744	0.0744	0.0744	-
Antimony (Sb)-Total	1	0.0001	0.0001	0.0001	-
Arsenic (As)-Total	1	0.00026	0.00026	0.00026	-
Barium (Ba)-Total	1	0.00695	0.00695	0.00695	-
Beryllium (Be)-Total	1	0.0001	0.0001	0.0001	-
Bismuth (Bi)-Total	1	0.00005	0.00005	0.00005	-
Boron (B)-Total	1	0.01	0.01	0.01	-
Cadmium (Cd)-Total	1	0.0000315	0.0000315	0.0000315	-
Calcium (Ca)-Total	1	3.69	3.69	3.69	-
Cesium (Cs)-Total	1	0.000023	0.000023	0.000023	-
Chromium (Cr)-Total	1	0.00035	0.00035	0.00035	-
Cobalt (Co)-Total	1	0.0001	0.0001	0.0001	-
Copper (Cu)-Total	1	0.00091	0.00091	0.00091	-
Iron (Fe)-Total	1	0.336	0.336	0.336	-
Lead (Pb)-Total	1	0.000201	0.000201	0.000201	-
Lithium (Li)-Total	1	0.001	0.001	0.001	-
Magnesium (Mg)-Total	1	0.65	0.65	0.65	-
Manganese (Mn)-Total	1	0.0757	0.0757	0.0757	-
Mercury (Hg)-Total	1	0.000005	0.000005	0.000005	-
Molybdenum (Mo)-Total	1	0.000097	0.000097	0.000097	-
Nickel (Ni)-Total	1	0.0005	0.0005	0.0005	-
Phosphorus (P)-Total	1	0.05	0.05	0.05	-
Potassium (K)-Total	1	0.553	0.553	0.553	-
Rubidium (Rb)-Total	1	0.00208	0.00208	0.00208	-
Selenium (Se)-Total	1	0.000085	0.000085	0.000085	-
Silicon (Si)-Total	1	2.1	2.1	2.1	-
Silver (Ag)-Total	1	0.00001	0.00001	0.00001	-
Sodium (Na)-Total	1	1.23	1.23	1.23	-
Strontium (Sr)-Total	1	0.0118	0.0118	0.0118	-
Sulfur (S)-Total	1	0.5	0.5	0.5	-
Tellurium (Te)-Total	1	0.0002	0.0002	0.0002	-
Thallium (Tl)-Total	1	0.00001	0.00001	0.00001	-
Thorium (Th)-Total	1	0.0001	0.0001	0.0001	-
Tin (Sn)-Total	1	0.0001	0.0001	0.0001	-
Titanium (Ti)-Total	1	0.00203	0.00203	0.00203	-
Tungsten (W)-Total	1	0.0001	0.0001	0.0001	-
Uranium (U)-Total	1	0.000019	0.000019	0.000019	-
Vanadium (V)-Total	1	0.0005	0.0005	0.0005	-
Zinc (Zn)-Total	1	0.004	0.004	0.004	-
Zirconium (Zr)-Total	1	0.00006	0.00006	0.00006	-
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	1	0.0123	0.0123	0.0123	-
Antimony (Sb)-Dissolved	1	0.0001	0.0001	0.0001	-
Arsenic (As)-Dissolved	1	0.00015	0.00015	0.00015	-
Barium (Ba)-Dissolved	1	0.00571	0.00571	0.00571	-
Beryllium (Be)-Dissolved	1	0.0001	0.0001	0.0001	-
Bismuth (Bi)-Dissolved	1	0.00005	0.00005	0.00005	-
Boron (B)-Dissolved	1	0.01	0.01	0.01	-
Cadmium (Cd)-Dissolved	1	0.0000185	0.0000185	0.0000185	-
Calcium (Ca)-Dissolved	1	3.45	3.45	3.45	-
Cesium (Cs)-Dissolved	1	0.000013	0.000013	0.000013	-
Chromium (Cr)-Dissolved	1	0.00014	0.00014	0.00014	-
Cobalt (Co)-Dissolved	1	0.0001	0.0001	0.0001	-
Copper (Cu)-Dissolved	1	0.0006	0.0006	0.0006	-
Iron (Fe)-Dissolved	1	0.024	0.024	0.024	-
Lead (Pb)-Dissolved	1	0.00005	0.00005	0.00005	-
Lithium (Li)-Dissolved	1	0.001	0.001	0.001	-
Magnesium (Mg)-Dissolved	1	0.603	0.603	0.603	-
Manganese (Mn)-Dissolved	1	0.00786	0.00786	0.00786	-
Mercury (Hg)-Dissolved	1	0.000005	0.000005	0.000005	-
Molybdenum (Mo)-Dissolved	1	0.000079	0.000079	0.000079	-
Nickel (Ni)-Dissolved	1	0.0005	0.0005	0.0005	-
Phosphorus (P)-Dissolved	1	0.05	0.05	0.05	-
Potassium (K)-Dissolved	1	0.536	0.536	0.536	-
Rubidium (Rb)-Dissolved	1	0.00189	0.00189	0.00189	-
Selenium (Se)-Dissolved	1	0.000077	0.000077	0.000077	-
Silicon (Si)-Dissolved	1	1.84	1.84	1.84	-
Silver (Ag)-Dissolved	1	0.00001	0.00001	0.00001	-
Sodium (Na)-Dissolved	1	1.16	1.16	1.16	-
Strontium (Sr)-Dissolved	1	0.0108	0.0108	0.0108	-
Sulfur (S)-Dissolved	1	0.5	0.5	0.5	-
Tellurium (Te)-Dissolved	1	0.0002	0.0002	0.0002	-
Thallium (Tl)-Dissolved	1	0.00001	0.00001	0.00001	-
Thorium (Th)-Dissolved	1	0.0001	0.0001	0.0001	-
Tin (Sn)-Dissolved	1	0.0001	0.0001	0.0001	-
Titanium (Ti)-Dissolved	1	0.0003	0.0003	0.0003	-
Tungsten (W)-Dissolved	1	0.0001	0.0001	0.0001	-
Uranium (U)-Dissolved	1	0.00001	0.00001	0.00001	-
Vanadium (V)-Dissolved	1	0.0005	0.0005	0.0005	-
Zinc (Zn)-Dissolved	1	0.0018	0.0018	0.0018	-
Zirconium (Zr)-Dissolved	1	0.00006	0.00006	0.00006	-

Notes:
1. Units are mg/L unless stated otherwise

Table 22 - BL4

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	9.96	18.02	22.36	5.4E+00
EC (uS/cm)	4	24	26.5	30	2.5E+00
Dissolved Oxygen (%)	4	78.2	96.1	100	9.9E+00
Dissolved Oxygen (mg/L)	4	7.1	8.91	11.7	1.9E+00
pH	4	6.34	6.945	7.29	4.0E-01
ORP	4	145.5	189.35	226.6	3.6E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	23.6	26.75	29.7	2.5E+00
Hardness (as CaCO3)	4	9.83	11.8	12.9	1.3E+00
pH	4	6.73	6.845	6.92	8.3E-02
Total Suspended Solids	4	1	1.2	1.5	2.1E-01
Total Dissolved Solids	4	22	29	35	5.4E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2	2.8	3	4.7E-01
Alkalinity, Total (as CaCO3)	4	7.7	9.9	12.2	1.9E+00
Ammonia, Total (as N)	4	0.02	0.02	0.08	3.0E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.36	0.405	0.42	2.6E-02
Fluoride (F)	4	0.02	0.02	0.021	5.0E-04
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.25	0.315	0.33	3.6E-02
Total Nitrogen	4	0.25	0.315	0.33	3.6E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0061	0.0068	0.0094	1.5E-03
Sulfate (SO4)	4	1.04	1.32	2.23	5.2E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	8.4	9.55	11.7	1.4E+00
Total Organic Carbon	4	8	9.75	12.2	1.7E+00
Total Metals					
Aluminum (Al)-Total	4	0.0302	0.06355	0.0895	2.5E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00026	0.000295	0.00031	2.2E-05
Barium (Ba)-Total	4	0.00473	0.004875	0.00526	2.3E-04
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.0000067	0.0000109	2.8E-06
Calcium (Ca)-Total	4	3.13	3.64	4.25	5.0E-01
Cesium (Cs)-Total	4	0.00001	0.0000135	0.000017	2.9E-06
Chromium (Cr)-Total	4	0.00031	0.000325	0.0004	4.2E-05
Cobalt (Co)-Total	4	0.0001	0.000105	0.00014	1.9E-05
Copper (Cu)-Total	4	0.00069	0.000775	0.00079	4.7E-05
Iron (Fe)-Total	4	0.225	0.2535	0.322	4.6E-02
Lead (Pb)-Total	4	0.00005	0.000064	0.000083	1.6E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.599	0.655	0.672	3.2E-02
Manganese (Mn)-Total	4	0.0068	0.015095	0.0288	1.0E-02
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.367	0.4585	0.482	5.4E-02
Rubidium (Rb)-Total	4	0.00142	0.00156	0.00159	7.7E-05
Selenium (Se)-Total	4	0.000061	0.0000785	0.000085	1.0E-05
Silicon (Si)-Total	4	0.71	1.13	1.32	2.7E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.833	0.8555	0.879	2.4E-02
Strontium (Sr)-Total	4	0.00962	0.01045	0.012	1.1E-03
Sulfur (S)-Total	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.00055	0.00099	0.00139	3.6E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.000015	0.000017	0.00002	2.2E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.0043	6.5E-04
Zirconium (Zr)-Total	4	0.00006	0.00006	0.000068	4.0E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0201	0.04245	0.0686	2.0E-02
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00022	0.000245	0.00026	1.7E-05
Barium (Ba)-Dissolved	4	0.00467	0.004995	0.0052	2.7E-04
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.0000065	7.5E-07
Calcium (Ca)-Dissolved	4	2.96	3.735	4.11	4.9E-01
Cesium (Cs)-Dissolved	4	0.000011	0.000013	0.000018	3.0E-06
Chromium (Cr)-Dissolved	4	0.00018	0.000245	0.00044	1.1E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.00011	5.0E-06
Copper (Cu)-Dissolved	4	0.00061	0.000625	0.00066	2.4E-05
Iron (Fe)-Dissolved	4	0.14	0.148	0.219	3.7E-02
Lead (Pb)-Dissolved	4	0.00005	0.0000505	0.000053	1.4E-06
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.594	0.608	0.637	2.0E-02
Manganese (Mn)-Dissolved	4	0.00288	0.00976	0.0253	1.0E-02
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.358	0.428	0.488	5.6E-02
Rubidium (Rb)-Dissolved	4	0.00131	0.00148	0.00173	1.8E-04
Selenium (Se)-Dissolved	4	0.00005	0.0000675	0.000089	1.6E-05
Silicon (Si)-Dissolved	4	0.608	1.13	1.31	3.1E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.796	0.8045	0.889	4.4E-02
Strontium (Sr)-Dissolved	4	0.00954	0.01035	0.0113	7.3E-04
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.00031	0.000395	0.00075	2.0E-04
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.000013	0.000015	0.000019	2.5E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00355	0.0065	2.5E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.000062	0.000077	8.1E-06

Notes:
1. Units are mg/L unless stated otherwise

Table 23 - M1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	10.38	17.995	23.29	6.2E+00
EC (uS/cm)	4	18	24	31	5.3E+00
Dissolved Oxygen (%)	4	37.3	92.4	99.8	3.0E+01
Dissolved Oxygen (mg/L)	4	4.06	8.02	10.21	2.6E+00
pH	4	6.75	6.955	7.63	3.9E-01
ORP	4	115.4	139.4	174	2.4E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	19	24.15	24.6	2.7E+00
Hardness (as CaCO3)	4	7.24	10.025	10.5	1.5E+00
pH	4	6.63	6.945	7.13	2.1E-01
Total Suspended Solids	4	1.3	1.95	2.1	3.6E-01
Total Dissolved Solids	4	23	24	37	6.7E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.1	2.35	4.6	1.2E+00
Alkalinity, Total (as CaCO3)	4	6.6	9.65	11.3	2.0E+00
Ammonia, Total (as N)	4	0.02	0.02	0.026	3.0E-03
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.14	0.145	0.21	3.4E-02
Fluoride (F)	4	0.02	0.02	0.024	2.0E-03
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.3	0.365	0.37	3.4E-02
Total Nitrogen	4	0.3	0.365	0.37	3.4E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0053	0.00945	0.0179	5.5E-03
Sulfate (SO4)	4	0.85	1.295	1.49	2.8E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	8.2	8.5	9.1	4.5E-01
Total Organic Carbon	4	8.2	8.75	9.6	7.3E-01
Total Metals					
Aluminum (Al)-Total	4	0.0121	0.0294	0.0428	1.3E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00021	0.00023	0.00024	1.3E-05
Barium (Ba)-Total	4	0.00548	0.007925	0.00869	1.5E-03
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.000011	0.000108	5.0E-05
Calcium (Ca)-Total	4	1.88	3.135	3.24	6.5E-01
Cesium (Cs)-Total	4	0.000017	0.000022	0.000025	3.7E-06
Chromium (Cr)-Total	4	0.00019	0.0002	0.00029	4.8E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.0005	0.00052	0.00074	1.1E-04
Iron (Fe)-Total	4	0.118	0.2015	0.341	1.1E-01
Lead (Pb)-Total	4	0.00005	0.00005	0.000151	5.1E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.594	0.608	0.671	3.5E-02
Manganese (Mn)-Total	4	0.00999	0.0137	0.0266	7.6E-03
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.45	0.7545	0.805	1.6E-01
Rubidium (Rb)-Total	4	0.00158	0.00207	0.00235	3.2E-04
Selenium (Se)-Total	4	0.00005	0.0000735	0.000085	1.6E-05
Silicon (Si)-Total	4	0.69	1.01	1.41	3.0E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.75	0.7715	0.788	1.9E-02
Strontium (Sr)-Total	4	0.0084	0.0109	0.0119	1.5E-03
Sulfur (S)-Total	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.0004	0.00054	9.9E-05
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.00001	0.000025	7.5E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.00006	0.00006	0.0E+00
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0074	0.0195	0.0267	8.3E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.00018	0.0002	0.00021	1.3E-05
Barium (Ba)-Dissolved	4	0.0049	0.00758	0.00807	1.5E-03
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.0000151	0.0000378	1.6E-05
Calcium (Ca)-Dissolved	4	1.87	3.07	3.17	6.2E-01
Cesium (Cs)-Dissolved	4	0.000018	0.000021	0.000025	3.0E-06
Chromium (Cr)-Dissolved	4	0.00011	0.000135	0.00016	2.1E-05
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00033	0.000435	0.00057	1.1E-04
Iron (Fe)-Dissolved	4	0.048	0.195	0.179	7.0E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.000054	2.0E-06
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.568	0.6055	0.627	2.9E-02
Manganese (Mn)-Dissolved	4	0.00146	0.001695	0.0106	4.5E-03
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.000144	4.7E-05
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.507	0.735	0.755	1.2E-01
Rubidium (Rb)-Dissolved	4	0.00149	0.00202	0.00217	3.0E-04
Selenium (Se)-Dissolved	4	0.00005	0.00005	0.000086	1.8E-05
Silicon (Si)-Dissolved	4	0.613	0.9835	1.41	3.4E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.694	0.748	0.844	6.3E-02
Strontium (Sr)-Dissolved	4	0.00822	0.0104	0.0107	1.2E-03
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.00001	0.000022	6.0E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.0018	0.0029	0.0077	2.8E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:
1. Units are mg/L unless stated otherwise

Table 24 - M2

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	4	11.02	18.61	23.98	5.8E+00
EC (uS/cm)	4	18	19	23	2.2E+00
Dissolved Oxygen (%)	4	93.2	99.45	105.6	5.1E+00
Dissolved Oxygen (mg/L)	4	8.48	9.255	10.77	9.6E-01
pH	4	6.88	7.23	7.96	4.6E-01
ORP	4	124.9	138.05	204.7	3.6E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	18.4	19.3	23.6	2.4E+00
Hardness (as CaCO3)	4	7.04	7.415	9.48	1.1E+00
pH	4	6.75	6.88	7.03	1.3E-01
Total Suspended Solids	4	1.6	1.8	17.7	8.0E+00
Total Dissolved Solids	4	20	26	32	5.5E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.2	2.3	3.1	4.3E-01
Alkalinity, Total (as CaCO3)	4	6.7	7.25	9.8	1.5E+00
Ammonia, Total (as N)	4	0.02	0.0265	0.13	5.3E-02
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.14	0.17	0.22	3.4E-02
Fluoride (F)	4	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.31	0.35	0.4	3.8E-02
Total Nitrogen	4	0.31	0.35	0.4	3.8E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.0041	5.5E-04
Phosphorus (P)-Total	4	0.0061	0.00705	0.008	9.9E-04
Sulfate (SO4)	4	0.84	1.505	2.02	5.4E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	7.9	8.35	8.8	3.7E-01
Total Organic Carbon	4	8.6	8.65	8.7	5.8E-02
Total Metals					
Aluminum (Al)-Total	4	0.0257	0.03175	0.0403	7.3E-03
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00018	0.00023	0.00025	3.1E-05
Barium (Ba)-Total	4	0.00466	0.00568	0.00782	1.3E-03
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.000005	0.0000165	5.8E-06
Calcium (Ca)-Total	4	1.91	1.99	2.96	5.0E-01
Cesium (Cs)-Total	4	0.000017	0.000019	0.000023	2.6E-06
Chromium (Cr)-Total	4	0.00021	0.000265	0.0005	1.3E-04
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.00062	0.000665	0.0021	7.3E-04
Iron (Fe)-Total	4	0.058	0.197	0.245	8.2E-02
Lead (Pb)-Total	4	0.00005	0.000055	0.000126	3.7E-05
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.59	0.6275	0.659	2.9E-02
Manganese (Mn)-Total	4	0.00907	0.0124	0.0371	1.3E-02
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.000054	0.000058	4.6E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.00056	3.0E-05
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	0.461	0.5055	0.768	1.4E-01
Rubidium (Rb)-Total	4	0.00161	0.001625	0.00199	1.9E-04
Selenium (Se)-Total	4	0.000061	0.0000655	0.000096	1.6E-05
Silicon (Si)-Total	4	0.99	1.255	1.37	1.6E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.715	0.7945	0.861	6.1E-02
Strontium (Sr)-Total	4	0.00875	0.008985	0.0105	8.3E-04
Sulfur (S)-Total	4	0.5	0.59	0.59	4.5E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.000515	0.00067	1.6E-04
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.000024	0.000025	7.2E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.0037	0.0101	3.4E-03
Zirconium (Zr)-Total	4	0.00006	0.00006	0.000064	2.0E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0155	0.01775	0.0255	4.5E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.00012	1.0E-05
Arsenic (As)-Dissolved	4	0.00018	0.000205	0.00022	1.7E-05
Barium (Ba)-Dissolved	4	0.00454	0.005285	0.00716	1.1E-03
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.0000056	3.0E-07
Calcium (Ca)-Dissolved	4	1.83	1.98	2.93	5.1E-01
Cesium (Cs)-Dissolved	4	0.000017	0.000019	0.000022	2.1E-06
Chromium (Cr)-Dissolved	4	0.00013	0.000145	0.0004	1.3E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00041	0.000535	0.00055	6.6E-05
Iron (Fe)-Dissolved	4	0.021	0.0875	0.13	4.5E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.524	0.5775	0.638	4.9E-02
Manganese (Mn)-Dissolved	4	0.00104	0.00253	0.00294	8.6E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.000055	2.5E-06
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	0.458	0.486	0.759	1.4E-01
Rubidium (Rb)-Dissolved	4	0.00146	0.001625	0.00207	2.6E-04
Selenium (Se)-Dissolved	4	0.00005	0.000059	0.000072	1.2E-05
Silicon (Si)-Dissolved	4	0.884	1.225	1.3	1.9E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.708	0.767	0.825	4.8E-02
Strontium (Sr)-Dissolved	4	0.00819	0.00854	0.0101	8.6E-04
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.0000195	0.000021	5.1E-06
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00185	0.0036	1.1E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 25 - M3

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	11.3	20.9	23.32	6.4E+00
EC (uS/cm)	3	37	38	40	1.5E+00
Dissolved Oxygen (%)	3	69.4	87.1	93	1.2E+01
Dissolved Oxygen (mg/L)	3	5.9	7.7	10.06	2.1E+00
pH	3	6.9	7.02	7.1	1.0E-01
ORP	3	132.9	150.5	166	1.7E+01
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	3	36.4	39.8	67.4	1.7E+01
Hardness (as CaCO3)	3	14.6	15.8	27.5	7.1E+00
pH	3	6.87	6.98	7.32	2.3E-01
Total Suspended Solids	3	1	1.1	1.1	5.8E-02
Total Dissolved Solids	3	28	31	34	3.0E+00
Anions and Nutrients					
Acidity (as CaCO3)	3	2.6	3	3.4	4.0E-01
Alkalinity, Total (as CaCO3)	3	13.4	15.3	28.3	8.1E+00
Ammonia, Total (as N)	3	0.02	0.02	0.051	1.8E-02
Bromide (Br)	3	0.1	0.1	0.1	1.7E-17
Chloride (Cl)	3	0.32	1.97	3.09	1.4E+00
Fluoride (F)	3	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	3	0.02	0.049	0.057	1.9E-02
Nitrite (as N)	3	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	3	0.29	0.32	0.51	1.2E-01
Total Nitrogen	3	0.35	0.37	0.51	8.7E-02
Orthophosphate-Dissolved	3	0.003	0.003	0.003	5.3E-19
Phosphorus (P)-Total	3	0.0054	0.0081	0.012	3.3E-03
Sulfate (SO4)	3	1.13	2.04	2.39	6.5E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	3	7.3	7.6	12	2.6E+00
Total Organic Carbon	3	7.2	8.3	12.8	3.0E+00
Total Metals					
Aluminum (Al)-Total	3	0.0181	0.0202	0.0339	8.6E-03
Antimony (Sb)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	3	0.00017	0.00019	0.00028	5.9E-05
Barium (Ba)-Total	3	0.00676	0.00713	0.0132	3.6E-03
Beryllium (Be)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	3	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	3	0.000005	0.0000051	0.0000128	4.5E-06
Calcium (Ca)-Total	3	4.99	5.09	9.89	2.8E+00
Cesium (Cs)-Total	3	0.000017	0.000027	0.000029	6.4E-06
Chromium (Cr)-Total	3	0.00013	0.00029	0.0003	9.5E-05
Cobalt (Co)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	3	0.00071	0.00089	0.00091	1.1E-04
Iron (Fe)-Total	3	0.203	0.212	0.866	3.8E-01
Lead (Pb)-Total	3	0.00005	0.00005	0.000084	2.0E-05
Lithium (Li)-Total	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	3	0.656	0.726	0.936	1.5E-01
Manganese (Mn)-Total	3	0.0142	0.0186	0.0734	3.3E-02
Mercury (Hg)-Total	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	3	0.000082	0.00065	0.000999	4.6E-04
Nickel (Ni)-Total	3	0.0005	0.0005	0.00055	2.9E-05
Phosphorus (P)-Total	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Total	3	0.559	0.561	1.02	2.7E-01
Rubidium (Rb)-Total	3	0.00188	0.00195	0.00208	1.0E-04
Selenium (Se)-Total	3	0.000052	0.000081	0.000098	2.3E-05
Silicon (Si)-Total	3	1.88	1.9	2.4	2.8E-01
Silver (Ag)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	3	1.2	1.86	2.5	6.5E-01
Strontium (Sr)-Total	3	0.0136	0.0143	0.0257	6.8E-03
Sulfur (S)-Total	3	0.5	0.5	0.78	1.6E-01
Tellurium (Te)-Total	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	3	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	3	0.0003	0.0003	0.00153	7.1E-04
Tungsten (W)-Total	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	3	0.00001	0.00001	0.00003	1.2E-05
Vanadium (V)-Total	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	3	0.003	0.003	0.0067	2.1E-03
Zirconium (Zr)-Total	3	0.00006	0.00006	0.000075	8.7E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	3	0.0086	0.0122	0.0145	3.0E-03
Antimony (Sb)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	3	0.00014	0.00014	0.00022	4.6E-05
Barium (Ba)-Dissolved	3	0.00658	0.00706	0.0113	2.6E-03
Beryllium (Be)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	3	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	3	0.000005	0.000005	0.0000078	1.6E-06
Calcium (Ca)-Dissolved	3	4.86	5.16	9.51	2.6E+00
Cesium (Cs)-Dissolved	3	0.000012	0.000028	0.000029	9.5E-06
Chromium (Cr)-Dissolved	3	0.0001	0.0001	0.00012	1.2E-05
Cobalt (Co)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	3	0.00059	0.00069	0.00072	6.8E-05
Iron (Fe)-Dissolved	3	0.14	0.144	0.434	1.7E-01
Lead (Pb)-Dissolved	3	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	3	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	3	0.588	0.702	0.916	1.7E-01
Manganese (Mn)-Dissolved	3	0.00989	0.0132	0.0154	2.8E-03
Mercury (Hg)-Dissolved	3	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	3	0.000059	0.000577	0.000937	4.4E-04
Nickel (Ni)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	3	0.05	0.05	0.05	8.5E-18
Potassium (K)-Dissolved	3	0.522	0.546	1.01	2.8E-01
Rubidium (Rb)-Dissolved	3	0.0019	0.00191	0.00205	8.4E-05
Selenium (Se)-Dissolved	3	0.00005	0.00006	0.000105	2.9E-05
Silicon (Si)-Dissolved	3	1.82	1.94	2.19	1.9E-01
Silver (Ag)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	3	1.11	1.71	2.46	6.8E-01
Strontium (Sr)-Dissolved	3	0.013	0.0135	0.0234	5.9E-03
Sulfur (S)-Dissolved	3	0.5	0.5	0.54	2.3E-02
Tellurium (Te)-Dissolved	3	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	3	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	3	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	3	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	3	0.00001	0.00001	0.00002	5.8E-06
Vanadium (V)-Dissolved	3	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	3	0.0013	0.0015	0.0025	6.4E-04
Zirconium (Zr)-Dissolved	3	0.00006	0.00006	0.000077	9.8E-06

Notes:

1. Units are mg/L unless stated otherwise

Table 26 - M4

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	3	10.09	23.76	23.8	7.9E+00
EC (uS/cm)	3	46	54	76	1.6E+01
Dissolved Oxygen (%)	3	74.1	100	102.3	1.6E+01
Dissolved Oxygen (mg/L)	3	6.14	8.57	11.98	2.9E+00
pH	3	6.51	7.43	7.57	5.8E-01
ORP	3	13.3	139.3	233.7	1.1E+02
Depth (m)	0	-	-	-	-
Physical Tests					
Conductivity (EC)	4	46.4	54.8	55.8	4.4E+00
Hardness (as CaCO3)	4	21.3	25.8	27.7	2.7E+00
pH	4	7.15	7.305	7.5	1.6E-01
Total Suspended Solids	4	1.2	2.65	3.9	1.2E+00
Total Dissolved Solids	4	39	51.5	53	6.7E+00
Anions and Nutrients					
Acidity (as CaCO3)	4	2.1	2.9	3.3	6.0E-01
Alkalinity, Total (as CaCO3)	4	21.6	27.9	28.9	3.4E+00
Ammonia, Total (as N)	4	0.02	0.02	0.021	5.0E-04
Bromide (Br)	4	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	4	0.12	0.12	0.12	0.0E+00
Fluoride (F)	4	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	4	0.02	0.02	0.02	0.0E+00
Nitrite (as N)	4	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	4	0.49	0.62	0.65	7.2E-02
Total Nitrogen	4	0.49	0.62	0.65	7.2E-02
Orthophosphate-Dissolved	4	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	4	0.0083	0.01205	0.0146	3.1E-03
Sulfate (SO4)	4	0.43	0.67	1.29	3.9E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	4	11.1	12.3	14.5	1.5E+00
Total Organic Carbon	4	11.4	14.1	15.1	1.7E+00
Total Metals					
Aluminum (Al)-Total	4	0.031	0.03955	0.0533	1.0E-02
Antimony (Sb)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	4	0.00022	0.00027	0.00033	4.6E-05
Barium (Ba)-Total	4	0.00954	0.01082	0.0122	1.3E-03
Beryllium (Be)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	4	0.000005	0.000005	0.0000069	9.5E-07
Calcium (Ca)-Total	4	7.57	9.325	9.62	9.4E-01
Cesium (Cs)-Total	4	0.00001	0.0000105	0.000014	1.9E-06
Chromium (Cr)-Total	4	0.00021	0.000235	0.00025	1.7E-05
Cobalt (Co)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	4	0.00063	0.000735	0.00078	6.4E-05
Iron (Fe)-Total	4	0.07	0.084	0.109	1.7E-02
Lead (Pb)-Total	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Total	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	4	0.74	0.8675	0.957	1.0E-01
Manganese (Mn)-Total	4	0.0111	0.0249	0.0366	1.2E-02
Mercury (Hg)-Total	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	4	0.00005	0.00005	0.000059	4.5E-06
Nickel (Ni)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	4	1.03	1.09	1.21	7.7E-02
Rubidium (Rb)-Total	4	0.00192	0.00217	0.0024	2.0E-04
Selenium (Se)-Total	4	0.000075	0.0000935	0.000109	1.6E-05
Silicon (Si)-Total	4	0.33	0.475	0.73	1.7E-01
Silver (Ag)-Total	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	4	0.699	0.7655	0.794	4.2E-02
Strontium (Sr)-Total	4	0.0135	0.0189	0.0193	2.8E-03
Sulfur (S)-Total	4	0.5	0.5	0.55	2.5E-02
Tellurium (Te)-Total	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	4	0.00001	0.00001	0.000012	1.0E-06
Thorium (Th)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	4	0.0003	0.00036	0.00038	3.6E-05
Tungsten (W)-Total	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	4	0.00001	0.00001	0.000012	1.0E-06
Vanadium (V)-Total	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	4	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	4	0.00006	0.00006	0.000066	3.0E-06
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	4	0.0199	0.03035	0.0372	7.6E-03
Antimony (Sb)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	4	0.0002	0.00023	0.0003	4.9E-05
Barium (Ba)-Dissolved	4	0.00875	0.009875	0.0116	1.4E-03
Beryllium (Be)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	4	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Calcium (Ca)-Dissolved	4	7.38	8.88	9.54	9.2E-01
Cesium (Cs)-Dissolved	4	0.00001	0.000011	0.000012	8.2E-07
Chromium (Cr)-Dissolved	4	0.0001	0.000245	0.00075	2.9E-04
Cobalt (Co)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	4	0.00053	0.00057	0.00071	8.5E-05
Iron (Fe)-Dissolved	4	0.02	0.038	0.062	1.9E-02
Lead (Pb)-Dissolved	4	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	4	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	4	0.705	0.8825	0.934	1.1E-01
Manganese (Mn)-Dissolved	4	0.001	0.001265	0.0019	4.2E-04
Mercury (Hg)-Dissolved	4	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	4	0.00005	0.00005	0.000057	3.5E-06
Nickel (Ni)-Dissolved	4	0.0005	0.0005	0.0007	1.0E-04
Phosphorus (P)-Dissolved	4	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	4	1.06	1.085	1.19	5.9E-02
Rubidium (Rb)-Dissolved	4	0.00195	0.002085	0.00233	1.8E-04
Selenium (Se)-Dissolved	4	0.00006	0.000077	0.000114	2.4E-05
Silicon (Si)-Dissolved	4	0.322	0.412	0.732	1.8E-01
Silver (Ag)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	4	0.694	0.7775	0.796	4.7E-02
Strontium (Sr)-Dissolved	4	0.0136	0.0168	0.0185	2.3E-03
Sulfur (S)-Dissolved	4	0.5	0.5	0.5	0.0E+00
Tellurium (Te)-Dissolved	4	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	4	0.00001	0.00001	0.000016	3.0E-06
Thorium (Th)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	4	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	4	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	4	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	4	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	4	0.001	0.00405	0.0067	2.8E-03
Zirconium (Zr)-Dissolved	4	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise

Table 27 - PL1

	Total Count	Min	Median	Max	Standard Deviation
In Situ Parameters					
Temp	2	10.37	15.575	20.78	7.4E+00
EC (uS/cm)	2	44	46.5	49	3.5E+00
Dissolved Oxygen (%)	2	92	95.5	99	4.9E+00
Dissolved Oxygen (mg/L)	2	8.23	9.65	11.07	2.0E+00
pH	2	7.57	7.615	7.66	6.4E-02
ORP	2	131.8	165.2	198.6	4.7E+01
Depth (m)	-	-	-	-	-
Physical Tests					
Conductivity (EC)	2	45.8	47.45	49.1	2.3E+00
Hardness (as CaCO3)	2	20.3	21	21.7	9.9E-01
pH	2	7.3	7.35	7.4	7.1E-02
Total Suspended Solids	2	1	1.2	1.4	2.8E-01
Total Dissolved Solids	2	30	33.5	37	4.9E+00
Anions and Nutrients					
Acidity (as CaCO3)	2	2	2	2	0.0E+00
Alkalinity, Total (as CaCO3)	2	22	23.55	25.1	2.2E+00
Ammonia, Total (as N)	2	0.034	0.038	0.042	5.7E-03
Bromide (Br)	2	0.1	0.1	0.1	0.0E+00
Chloride (Cl)	2	0.14	0.145	0.15	7.1E-03
Fluoride (F)	2	0.02	0.02	0.02	0.0E+00
Nitrate (as N)	2	0.02	0.0245	0.029	6.4E-03
Nitrite (as N)	2	0.01	0.01	0.01	0.0E+00
Total Kjeldahl Nitrogen	2	0.26	0.295	0.33	4.9E-02
Total Nitrogen	2	0.26	0.31	0.36	7.1E-02
Orthophosphate-Dissolved	2	0.003	0.003	0.003	0.0E+00
Phosphorus (P)-Total	2	0.0039	0.00595	0.008	2.9E-03
Sulfate (SO4)	2	1.5	1.935	2.37	6.2E-01
Organic / Inorganic Carbon					
Dissolved Organic Carbon	2	5.2	5.5	5.8	4.2E-01
Total Organic Carbon	2	5.3	5.8	6.3	7.1E-01
Total Metals					
Aluminum (Al)-Total	2	0.0039	0.00855	0.0132	6.6E-03
Antimony (Sb)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Total	2	0.00013	0.000135	0.00014	7.1E-06
Barium (Ba)-Total	2	0.0129	0.01295	0.013	7.1E-05
Beryllium (Be)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Total	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Total	2	0.000005	0.00000685	0.0000087	2.6E-06
Calcium (Ca)-Total	2	6.93	7.4	7.87	6.6E-01
Cesium (Cs)-Total	2	0.00001	0.0000105	0.000011	7.1E-07
Chromium (Cr)-Total	2	0.0001	0.000185	0.00027	1.2E-04
Cobalt (Co)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Iron (Fe)-Total	2	0.078	0.1225	0.167	6.3E-02
Lead (Pb)-Total	2	0.00005	0.0000515	0.000053	2.1E-06
Lithium (Li)-Total	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Total	2	0.698	0.7295	0.761	4.5E-02
Manganese (Mn)-Total	2	0.0143	0.0249	0.0355	1.5E-02
Mercury (Hg)-Total	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Total	2	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Total	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Total	2	1.16	1.185	1.21	3.5E-02
Rubidium (Rb)-Total	2	0.00189	0.001895	0.0019	7.1E-06
Selenium (Se)-Total	2	0.00005	0.000056	0.000062	8.5E-06
Silicon (Si)-Total	2	2.14	2.255	2.37	1.6E-01
Silver (Ag)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Total	2	0.905	0.909	0.913	5.7E-03
Strontium (Sr)-Total	2	0.017	0.0185	0.02	2.1E-03
Sulfur (S)-Total	2	0.5	0.555	0.61	7.8E-02
Tellurium (Te)-Total	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Total	2	0.0003	0.00031	0.00032	1.4E-05
Tungsten (W)-Total	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Total	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Total	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Total	2	0.003	0.003	0.003	0.0E+00
Zirconium (Zr)-Total	2	0.00006	0.0000765	0.000093	2.3E-05
Dissolved Metals (Water)					
Aluminum (Al)-Dissolved	2	0.002	0.0031	0.0042	1.6E-03
Antimony (Sb)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Arsenic (As)-Dissolved	2	0.00011	0.000115	0.00012	7.1E-06
Barium (Ba)-Dissolved	2	0.0113	0.01195	0.0126	9.2E-04
Beryllium (Be)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Bismuth (Bi)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Boron (B)-Dissolved	2	0.01	0.01	0.01	0.0E+00
Cadmium (Cd)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Calcium (Ca)-Dissolved	2	7.01	7.215	7.42	2.9E-01
Cesium (Cs)-Dissolved	2	0.00001	0.0000105	0.000011	7.1E-07
Chromium (Cr)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Cobalt (Co)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Copper (Cu)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Iron (Fe)-Dissolved	2	0.042	0.0635	0.085	3.0E-02
Lead (Pb)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Lithium (Li)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Magnesium (Mg)-Dissolved	2	0.67	0.716	0.762	6.5E-02
Manganese (Mn)-Dissolved	2	0.00284	0.004355	0.00587	2.1E-03
Mercury (Hg)-Dissolved	2	0.000005	0.000005	0.000005	0.0E+00
Molybdenum (Mo)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Nickel (Ni)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Phosphorus (P)-Dissolved	2	0.05	0.05	0.05	0.0E+00
Potassium (K)-Dissolved	2	1.09	1.155	1.22	9.2E-02
Rubidium (Rb)-Dissolved	2	0.00182	0.001895	0.00197	1.1E-04
Selenium (Se)-Dissolved	2	0.00005	0.00005	0.00005	0.0E+00
Silicon (Si)-Dissolved	2	2.14	2.315	2.49	2.5E-01
Silver (Ag)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Sodium (Na)-Dissolved	2	0.845	0.873	0.901	4.0E-02
Strontium (Sr)-Dissolved	2	0.0169	0.01735	0.0178	6.4E-04
Sulfur (S)-Dissolved	2	0.5	0.505	0.51	7.1E-03
Tellurium (Te)-Dissolved	2	0.0002	0.0002	0.0002	0.0E+00
Thallium (Tl)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Thorium (Th)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Tin (Sn)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Titanium (Ti)-Dissolved	2	0.0003	0.0003	0.0003	0.0E+00
Tungsten (W)-Dissolved	2	0.0001	0.0001	0.0001	0.0E+00
Uranium (U)-Dissolved	2	0.00001	0.00001	0.00001	0.0E+00
Vanadium (V)-Dissolved	2	0.0005	0.0005	0.0005	0.0E+00
Zinc (Zn)-Dissolved	2	0.001	0.001	0.001	0.0E+00
Zirconium (Zr)-Dissolved	2	0.00006	0.00006	0.00006	0.0E+00

Notes:

1. Units are mg/L unless stated otherwise


Appendix 8

2017-2018 Photograph Log

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
1	2/6/2017	BGL1 north facing
Description BGL1		

Photo #:	Date.	Direction Photo Taken
2	2/6/2017	BGL1 – east view
Description BGL1		

Photograph Log


Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
3	2/6/2017	BGL1 – South view
Description BGL1		

Photo #:	Date.	Direction Photo Taken
4	2/6/2017	BGL1 – West View
Description BGL1		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
5	2/6/2017	BGL5 – sample collected from the boat near Bending Lake outlet
Description BGL5		
Photo #:	Date.	Direction Photo Taken
6	2/6/2017	BL4 - north view
Description BL4		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--


Photo #:	Date.	Direction Photo Taken
7	2/6/2017	BL4 – south view
Description BL4		

Photo #:	Date.	Direction Photo Taken
8	2/6/2017	BL4 – Bridge where sample was taken
BL4		

Photograph Log

Client Name: Ambershaw Metallics	Project No. 17018	Site Location: Ambershaw Project
--	-----------------------------	--




Photo #:	Date.	Direction Photo Taken
9	6/2/2017	M4 – East view
Description		

Photo #:	Date.	Direction Photo Taken
10	6/2/2017	M4 - North View
Description M4		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
11	6/2/2017	M4 - South View
Description M4		

Photo #:	Date.	Direction Photo Taken
12	6/2/2017	M4 - West View
Description M4		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
13	6/2/2017	SL5 – East View
Description SL5		

Photo #:	Date.	Direction Photo Taken
14	6/2/2017	SL5 – North West view
Description SL5		

Photograph Log



Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
15	6/2/2017	SL5 – South View
Description SL5		

Photo #:	Date.	Direction Photo Taken
16	6/2/2017	SL5 – west facing
Description SL5		

Photograph Log


Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date:	Direction Photo Taken
17	6/2/2017	SL6 – east view
Description SL6		
Photo #:	Date:	Direction Photo Taken
18	6/2/2017	SL6 – north view
Description SL6		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--


Photo #:	Date.	Direction Photo Taken
19	6/2/2017	SL6 – South View
Description SL6		

Photo #:	Date.	Direction Photo Taken
20	6/2/2017	SL6 – West View
Description SL6		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--


Photo #:	Date:	Direction Photo Taken
21	6/2/2017	TC1 – East View
Description TC1		

Photo #:	Date:	Direction Photo Taken
22	6/2/2017	TC1 – North View
Description XXX		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
23	6/2/2017	TC1 – South View
Description xxx		

Photo #:	Date.	Direction Photo Taken
24	6/2/2017	TC1 –West View
Description TC1		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--



Photo #:	Date.	Direction Photo Taken
25	6/2/2017	TC2 – East View
Description TC2		

Photo #:	Date.	Direction Photo Taken
26	6/2/2017	TC2 – North View
Description TC2		

Photograph Log

Client Name: Ambershaw Metallics	Project No. 17018	Site Location: Ambershaw Project
--	-----------------------------	--



Photo #:	Date.	Direction Photo Taken
27	6/2/2017	TC2 – South View
Description TC2		

Photo #:	Date.	Direction Photo Taken
28	6/2/2017	TC2 – West View
Description TC2		

Photograph Log

Client Name: Ambershaw Metallics	Project No.: 17018	Site Location: Ambershaw Project
--	------------------------------	--

Photo #:	Date.	Direction Photo Taken
29	6/29/2017	M3 – facing North
Description M3		

Photo #:	Date.	Direction Photo Taken
30	6/29/2017	PL1 – looking upstream
Description PL1		

Appendix 9

RWDI Air Quality Assessment Report, November 2017

AMI PROJECT ENVIRONMENTAL – BASELINES SERVICES

NORTHWEST, ONTARIO

AIR QUALITY ASSESSMENT

RWDI # 1701998

November 24, 2017

SUBMITTED TO

Nicola Lower
Natural Sciences Lead
Palmer Environmental Consulting Group Inc.
374 Wellington Street West, Suite 3,
Toronto, ON M5V 1E3
nicola@pceg.ca

SUBMITTED BY

Robert Jean
Project Manager
robert.jean@rwdi.com

Mike Lepage
Principal
mike.lepage@rwdi.com

RWDI AIR Inc.
Consulting Engineers & Scientists
600 Southgate Drive
Guelph, Ontario, N1G 4P6
T: 519.823.1311
F: 519.823.1316



TABLE OF CONTENTS

1	INTRODUCTION	1
2	PROJECT OVERVIEW	1
3	CLIMATE CONDITIONS	1
3.1	Background.....	1
3.2	Temperature and Humidity.....	4
3.3	Precipitation.....	6
3.4	Wind.....	8
4	EXISTING AIR QUALITY	10
4.1	Air Quality Objectives	10
4.2	Air Quality Measurements.....	12
5	CONCLUSIONS	15

LIST OF TABLES

- Table 1: Meteorological Station Locations
- Table 2: Monthly Mean Temperatures (°C)
- Table 3: Mean Daily Maximum Temperature (°C)
- Table 4: Mean Daily Minimum Temperature (°C)
- Table 5: Mean Relative Humidity
- Table 6a: Rainfall and Snowfall
- Table 6b: Snow Depth and Total Precipitation
- Table 7: Monthly Mean Wind Speed
- Table 8: Air Quality Criteria and Standards
- Table 9: Summary of 2015 Monitoring Data for Thunder Bay ($\mu\text{g}/\text{m}^3$ unless otherwise indicated)
- Table 10: Summary of 2002 Monitoring Data for Thunder Bay ($\mu\text{g}/\text{m}^3$ unless otherwise indicated)
- Table 11: PM, NO₂ and SO₂ Measurements at the Hardrock Project Site (Geraldton) in 2015
- Table 12: TSP and Metals Measurements at the Hardrock Project Site (Geraldton) in 2015

LIST OF FIGURES

- Figure 1: Locations for Project Site and Met Stations
- Figure 2: Wind Rose for Dryden Regional Airport (1999 – 2017)
- Figure 3: Wind Rose for Bending Lake Station 1 (2011-2012)
- Figure 4: Wind Rose for Bending Lake Station 2 (2011-2012)



1 INTRODUCTION

Ambershaw Metallics Inc. (Ambershaw) has been exploring and developing the Bending Lake site known as the AMI Mine Project (the Project), located in the Kenora Mining Division and the Dryden (MNR) District, Ontario, approximately 285 km (177.1 mi) northwest of Thunder Bay, Ontario (Figure 1). Ambershaw continues to develop the Project towards Pre-Feasibility Status through: Environmental Baseline Studies which were initiated in 2011-2012 on the Bending Lake site.

The purpose of this report is to summarize the existing baseline conditions in the study area of the Project in terms of climatic conditions, current background levels for airborne contaminants such as criteria air contaminants and trace metals.

2 PROJECT OVERVIEW

Ambershaw Metallics Inc., a privately held Canadian company, intends to construct and operate a DR-grade pellet manufacturing operation in Northwestern Ontario producing an estimated 1.9 million tonnes per year of DR-grade pellets from 8 million tonnes of crude ore. The mine, coarse crusher, fine crusher, dry cobber, concentrator circuit, pelleting plant and related support facilities are to be located on the northwest side of Bending Lake.

The orebody is a banded magnetite formation of the Algoma type, striking northwest and dipping approximately 55 degrees to the southwest. The major portion of the orebody creates a footprint approximately 1.25 km long and 500 metres wide and has a proven thickness of approximately 300 metres. The weight recovery of the ore is between 28 and 29% according to bulk sample testing conducted by Lakefield Research in 1977.

Ambershaw intends to work with the federal and provincial governments towards commencing a bulk sampling program. Baseline study will support advanced exploration permitting. Baseline programs in support of a federal environmental assessment and provincial Class environmental assessments will commence in 2017 or as appropriate. Ambershaw intends to work towards submission of an environmental assessment in support of modular-based full scale production in 2020.

3 CLIMATE CONDITIONS

3.1 Background

Site-specific climate information is available at the Project site. Two data stations were installed for the Bending Lake Iron Ore Project by RWDI in 2011. On-Site Metrological data were available from August 2011 to May 2012 (Station 1 and 2) and from September 2012 to August 2013 (Station 2). Station 1 and 2 are located approximately 17 km (North) and 14km (East), respectively, from the Project site.



Additional baseline data for climatic conditions were also gathered from other sources. Environment Canada provides climate normal and averages for two stations near the Project site: Dryden Airport and Dryden City. Historical monthly data were available at both stations, with data from 1981 to 2010 used for the comparison. Dryden Airport and Dryden City stations are both located 80 km (North West) from the Project site and assumed to be representative of the study area because of its proximity. The Metrological Station location details are listed in Table 1 and displayed in Figure 1.

Table 1: Meteorological Station Locations

Station Name	Latitude	Longitude	Elevation (m)
Bending Lake Station 1	49°28'57.510" N	91°55'47.431" W	439
Bending Lake Station 2	49°18'39.326" N	92°09'44.867" W	435
Dryden City	49°47'00.000" N	92°50'00.000" W	371.9
Dryden Airport	49°50'00.000" N	92°45'00.000" W	412.7



Figure 1: Locations for Project Site and Met Stations



3.2 Temperature and Humidity

Table 2 shows the overall mean monthly temperature for each month of the year for the Dryden Airport, Dryden City, and the two Bending Lake weather stations. Table 3 shows the mean daily maximum temperature, and Table 4 shows the mean daily minimum temperature. The values for 2012-2013 at Bending Lake Station 2 are very similar to the long-term values at the Dryden stations; whereas, those at for 2011-2012 at both Bending Lake stations are somewhat warmer than the long-term averages at the Dryden stations. Mean daily maximum temperatures in the study area range from around -10°C in January to +23°C in July, and mean daily minimum temperatures range from around -20°C in January to +13°C in July.

Table 5 presents relative humidity averages for Dryden Airport, the only one of the four weather stations for which humidity data were available. The average relative humidity in the early morning (06:00) ranges from 75% to 90%, and is highest in Augusts and September. The relative humidity in the mid-afternoon ranges from 45% to 76%, with the lowest values occurring from April through June and the highest values occurring from November through January.

Table 2: Monthly Mean Temperatures (°C)

Month	Stn 1 (2011-2012)	Stn 2 (2011-2012)	Stn 2 (2012-2013)	Dryden (1981-2010)	Dryden Airport (1981-2010)
Jan	-11.5	-11.4	-14.6	-17.4	-16.8
Feb	-7.5	-7.5	-13.4	-13.4	-12.7
Mar	2.1	2.3	-7	-6.1	-5.8
Apr	3.6	4.1	-0.2	2.7	3
May	10.3	12.8	9.1	10.7	10.8
Jun	NA	NA	16.2	16.2	16.2
Jul	NA	NA	18.3	18.5	18.9
Aug	17.8	18.2	17.7	17.4	17.8
Sept	11.9	12.4	11.4	11.2	11.7
Oct	7.6	8	5.6	4.3	4.2
Nov	-1.5	-1.3	-3.1	-5.7	-5.2
Dec	-9	-8.5	-11.3	-14.2	-13.5
Annual	2.4	2.9	2.4	2	2.4



Table 3: Mean Daily Maximum Temperature (°C)

Month	Stn 1 (2011-2012)	Stn 2 (2011-2012)	Stn 2 (2012-2013)	Dryden (1981-2010)	Dryden Airport (1981-2010)
Jan	-7.2	-7.1	-10.1	-12.3	-11.6
Feb	-2.8	-2.9	-8.1	-7.8	-7.3
Mar	7.9	7.9	-1.7	-0.2	-0.1
Apr	9.7	9.6	4.4	8.8	8.8
May	17.5	18.8	14.5	17.1	16.9
Jun	NA	NA	21.8	21.8	21.7
Jul	NA	NA	23.1	23.7	24.3
Aug	23.2	23.1	23.2	22.6	23.1
Sept	18.2	18.2	17	15.7	16.5
Oct	12.1	12.2	9.3	8.1	8.2
Nov	1.8	2	-0.1	-2.2	-1.6
Dec	-5.3	-4.9	-7.8	-9.9	-9.1
Annual	7.5	7.7	7.1	7.1	7.5

Table 4: Mean Daily Minimum Temperature (°C)

Month	Stn 1 (2011-2012)	Stn 2 (2011-2012)	Stn 2 (2012-2013)	Dryden (1981-2010)	Dryden Airport (1981-2010)
Jan	-16.4	-16	-19.8	-22.5	-21.9
Feb	-12.5	-12.4	-19.6	-18.9	-18.1
Mar	-3.8	-3.2	-12.7	-11.9	-11.5
Apr	-2.9	-1.4	-5.7	-3.4	-2.8
May	7.9	8.9	3.3	4.3	4.7
Jun	NA	NA	10.2	10.5	10.5
Jul	NA	NA	13.5	13.2	13.4
Aug	10.6	12.7	12	12.2	12.4
Sept	5.5	7.1	6.3	6.7	6.8
Oct	2.9	4.1	1.7	0.5	0.3
Nov	-5.1	-4.6	-6.2	-9.1	-8.8
Dec	-13.7	-12.6	-15.1	-18.4	-17.8
Annual	-2.8	-1.7	-2.7	-3.1	-2.7



Table 5 presents relative humidity averages for Dryden Airport, the only one of the four weather stations for which humidity data were available. The average relative humidity in the early morning (06:00) ranges from 75% to 90%, and is highest in Augusts and September. The relative humidity in the mid-afternoon ranges from 45% to 76%, with the lowest values occurring from April through June and the highest values occurring from November through January.

Table 5: Mean Relative Humidity

Month	Average Relative Humidity - 0600LST (%)	Average Relative Humidity - 1500LST (%)
Jan	81.5	75.5
Feb	82.2	69.1
Mar	80.5	59.3
Apr	75.8	46.5
May	77.3	45.6
Jun	83.4	51.5
Jul	87.3	53.5
Aug	89.8	54.6
Sept	90.4	60.3
Oct	87.6	66.4
Nov	86.7	75.7
Dec	84.2	78.5
Annual	83.9	61.4

3.3 Precipitation

Precipitation data (rainfall, snowfall, snow depth and total precipitation) were obtained from Environment Canada climate normals at the Dryden City and Dryden Airport stations from 1981 to 2010. The data are presented in Tables 6a, b.

Annual rainfall in the area is in the range from 500 to 600mm, with the highest rainfall occurring in June and July (over 100mm per month). The area receives between 100 and 200 cm of snowfall annually, which is fairly evenly distributed across the cold weather months (November through March). The monthly average depth of snow on the ground ranges between 26 to 45 cm during the period from December through March. In terms of total precipitation, the driest months tend to be December through March (less than 30mm of total precipitation each month), and the wettest months tend to be June and July (over 100mm each month).



Table 6a: Rainfall and Snowfall

Month	Dryden (1981-2010)	Dryden Airport (1981-2010)	Dryden (1981-2010)	Dryden Airport (1981-2010)
Jan	0.1	0.2	27.1	30.1
Feb	1	2.1	19.7	19.9
Mar	7.5	6.7	19.6	25.1
Apr	32.2	24.7	5.3	13.9
May	64.7	69.2	0.5	3.4
Jun	110.1	115.2	0	0
Jul	127.6	103.1	0	0
Aug	83	83.5	0	0
Sept	99.5	87.7	0.9	1.1
Oct	46.9	49.2	9.4	14.6
Nov	14.1	13	28.4	35.3
Dec	0	1.2	28.1	31.1
Annual	586.8	555.8	138.9	174.7

Table 6b: Snow Depth and Total Precipitation

Month	Dryden (1981-2010)	Dryden Airport (1981-2010)	Dryden MET (1981-2010)	Dryden Airport MET (1981-2010)
Jan	38	30	27.2	26.5
Feb	45	34	20.6	20
Mar	39	27	27.1	29.9
Apr	0	5	37.5	39.6
May	0	0	65.2	73.4
Jun	0	0	110.1	115.2
Jul	0	0	127.6	103.1
Aug	0	0	83	83.7
Sept	0	0	100.4	88.9
Oct	0	1	56.2	63.6
Nov	0	8	42.6	46.7
Dec	26	19	28.1	29.1
Annual	NA	NA	725.7	719.7



3.4 Wind

Table 7 shows mean monthly wind speeds for Dryden Airport and the two Bending Lake weather stations. The long-term mean annual wind speed at Dryden Airport is 12.4 km/h; whereas, the mean annual speeds measured at the Bending Lake stations were lower, ranging from 5.4 to 7.3 km/h. This is presumably due to the less exposed nature of the Bending Lake stations, compared to the weather station at Dryden Airport. The Bending Lake stations are expected to be more representative of wind conditions at the proposed mine site.

Table 7: Monthly Mean Wind Speed

Stations	Stn 1 (2011-2012)	Stn 2 (2011-2012)	Stn 2 (2012-2013)	Dryden Airport MET (1981-2010)
Jan	6.3	7.3	7.5	11.5
Feb	5.8	6.7	6.5	12.5
Mar	5.7	8.1	6.8	13
Apr	5.5	7.7	8.4	13.3
May	3	9.1	9	13.2
Jun	NA	NA	6	12.5
Jul	NA	NA	5.6	11.3
Aug	4.3	5	4.7	11.1
Sept	5.1	5.9	5.9	12.7
Oct	5.8	8	7.7	13.4
Nov	6.3	7.8	7.2	12.8
Dec	6.1	7.5	5.7	11.6
Annual	5.4	7.3	7	12.4

Figure 2 presents a wind rose for Dryden Regional Airport for the period from 1999 to 2017. It shows that the winds there come most often from directions between south and west. Figure 3 shows a wind rose for Bending Lake Station 1, showing that winds there came most often from directions between south-southwest and west northwest during the period from 2011 to 2012. At Bending Lake Station 2 from 2011 to 2012 (Figure 4), on the other hand, winds from the southeast and south-southeast were also relatively frequent. Winds from the northeast quadrant were least frequent at both Bending Lake stations.

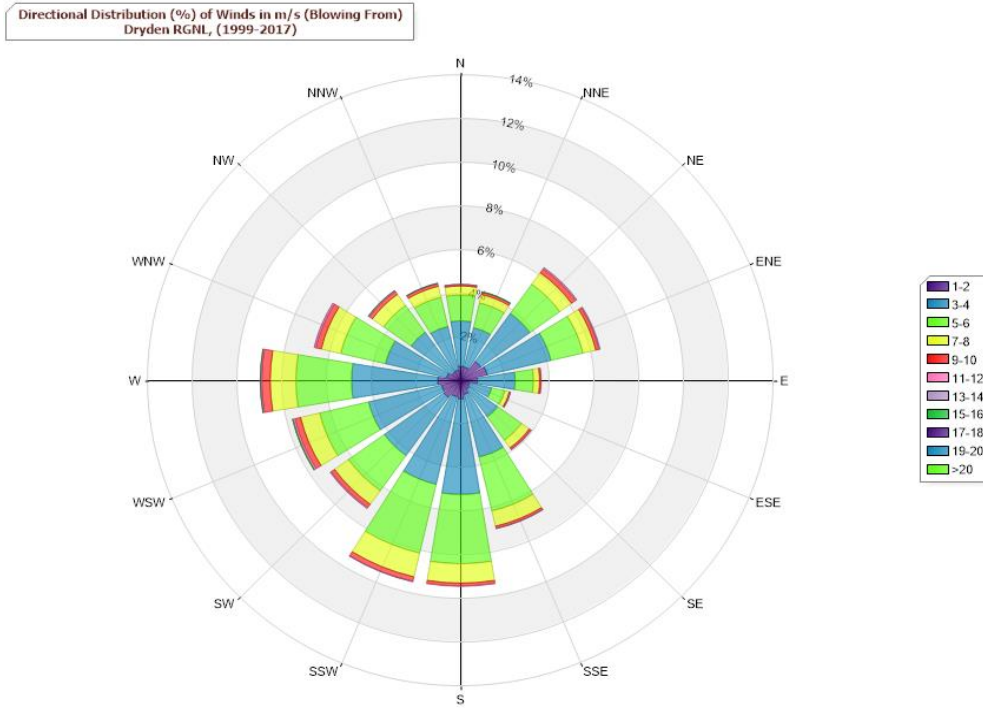


Figure 2: Wind Rose for Dryden Regional Airport (1999 - 2017)

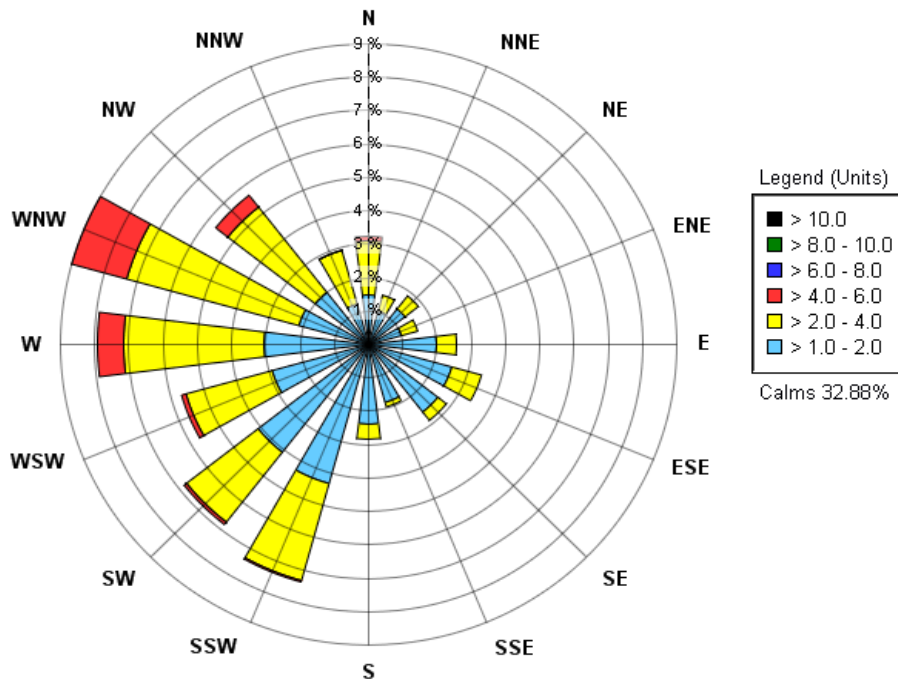


Figure 3: Wind Rose for Bending Lake Station 1 (2011-2012)

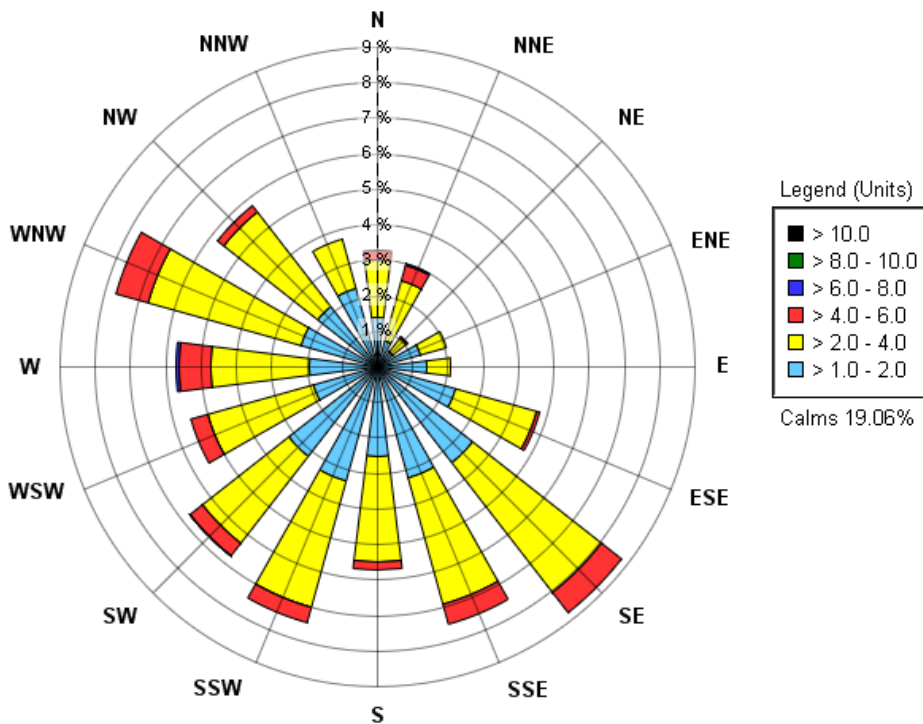


Figure 4: Wind Rose for Bending Lake Station 2 (2011-2012)

4 EXISTING AIR QUALITY

4.1 Air Quality Objectives

The Province of Ontario has Ambient Air Quality Criteria (AAQCs), which are effects-based levels in air, based on health and/or other effects. They are used in environmental assessments, special air monitoring studies, and assessments of general air quality to determine the potential for adverse effects. In addition, the Canadian Council of Ministers of the Environment (CCME) has developed Canadian ambient air quality standards (CAAQS) for some air pollutants. AAQCs and CAAQS are shown in Table 8 for a selection of potentially relevant air contaminants. Unless otherwise noted, concentrations thresholds are expressed in units of micrograms of contaminant per cubic metre of air ($\mu\text{g}/\text{m}^3$).



Table 8: Air Quality Criteria and Standards

Pollutant	Criterion (µg/m ³)	Averaging Period	Source	Notes
Ground-level ozone (O ₃)	165 (0.080 ppm)	1 hour	AAQC	
	130 (0.065 ppm)	8 hours	CAAQS	annual 4th highest
Total Suspended particulate (TSP)	120	24 hours	AAQC	
	60	1 year	AAQC	
Inhalable particulate (PM ₁₀)	50	24 hours	AAQC	
Respirable particulate (PM _{2.5})	28	24 hours	CAAQS	98th %-ile drops to 27 in 2020
	10	1 year	CAAQS	drops to 8.8 in 2020
Nitrogen Dioxide (NO ₂)	400 (0.1 ppm)	1 hour	AAQC	
	200 (0.2 ppm)	24 hours	AAQC	
	120 (0.06 ppm)	1 hour	CAAQS	99th %-ile of daily max in effect by 2020
	34 (0.017 ppm)	1 year	CAAQS	in effect by 2020
Carbon Monoxide (CO)	36,200 (30 ppm)	1-hour	AAQC	
	15,700 (13 ppm)	8-hour	AAQC	
Sulphur Dioxide (SO ₂)	690 (0.25 ppm)	1-hour	AAQC	
	275 (0.1 ppm)	24 hours	AAQC	
	55 (0.02 ppm)	1 year	AAQC	
	193 (0.07 ppm)	1 hour	CAAQS	99th %-ile of daily max in effect by 2020
	14 (0.005 ppm)	1 year	CAAQS	in effect by 2020
Arsenic	0.3	24 hours	AAQC	
Titanium	120	24 hours	AAQC	
Manganese	0.1 (Mn in PM _{2.5})	24 hours	AAQC	
	0.2 (Mn in PM ₁₀)	24 hours	AAQC	
	0.4 (Mn in TSP)	24 hours	AAQC	
Nickel	0.02 (Ni in PM ₁₀)	1 year	AAQC	
	0.04 (Ni in TSP)	1 year	AAQC	
	0.1 (Ni in PM ₁₀)	24 hours	AAQC	
	0.2 (Ni in TSP)	24 hours	AAQC	
Copper	50	24 hours	AAQC	
Iron	4	24 hours	AAQC	



Pollutant	Criterion (µg/m ³)	Averaging Period	Source	Notes
Lead	0.5	24 hours	AAQC	
	0.2	30 days	AAQC	
Chromium	0.5	24 hours	AAQC	
Cadmium	0.025	24 hours	AAQC	
	0.005	1 year	AAQC	
Vanadium	2	24 hours	AAQC	
Zinc	120	24 hours	AAQC	

4.2 Air Quality Measurements

Current air quality conditions were determined by looking at published air pollutant monitoring data from the most representative available monitoring station operated by the Ontario Ministry of Environment and Climate Change (MOECC), and from ambient monitoring studies conducted at other similar sites in Northern Ontario. The air pollution monitoring data were used as a representation of present-day outdoor concentrations of the contaminants of concern (CACs and trace metals) in the study area. These are referred to as background concentrations.

The most representative air monitoring station currently operated by the MOECC is located at 615 James Street, Thunder Bay, Ontario, which is on the order of 250 km from the project site. Currently, the station records data only for O₃, NO₂, and PM_{2.5}. Table 9 summarizes recent monitoring data for those contaminants. The data indicate that concentrations of O₃ and NO₂ are currently within their AAQCs. PM_{2.5} is within the standard for the 1-year averaging period, but exceeds the standard for the 24-hour averaging period.

Table 9: Summary of 2015 Monitoring Data for Thunder Bay (µg/m³ unless otherwise indicated)

Pollutant	AAQC (µg/m ³)	90th Percentile 1-hr	Maximum 1-hr	Maximum 24-hr	1-Year Average
O ₃	0.08 ppm (1-hr)	0.039 ppm	0.062 ppm	0.048 ppm	0.024 ppm
PM _{2.5}	28 (24-hr) 10 (1-yr)	11	91	32	6.5
NO ₂	0.2 ppm (1-hr) 0.1 ppm (24-hr)	0.016 ppm	0.050 ppm	0.027 ppm	0.0075

Until 2003, the station also recorded CO, SO₂ and a selection of airborne metals. Table 10 summarizes data from 2002. For O₃, NO₂, and PM_{2.5}, the 2002 data are similar in magnitude to those shown in Table 9 for the year 2015. For the other air contaminants, the 2002 data show that the concentrations are well within the applicable AAQCs.



Table 10: Summary of 2002 Monitoring Data for Thunder Bay ($\mu\text{g}/\text{m}^3$ unless otherwise indicated)

Pollutant	AAQC ($\mu\text{g}/\text{m}^3$)	90th Percentile 1-hr	Maximum 1-hr	90th Percentile 24-hr	Maximum 24-hr	Maximum 8-hr	1-Year Average
O ₃	0.08 ppm (1-hr)	0.039 ppm	0.078 ppm	-	0.048 ppm	-	0.023 ppm
PM ₁₀	50 (24-hr)			25	53	-	13
PM _{2.5}	28 (24-hr) 10 (1-yr)	14	199	-	37	-	6.2
NO ₂	0.1 ppm (1-hr) 0.2 ppm (24-hr)	0.024 ppm	0.064 ppm	-	0.036 ppm	-	0.012
CO	30 ppm (1-hr) 13 ppm (8-hr)	0.94 ppm	4.3 ppm	-	-	3.1	0.47 ppm
SO ₂	0.25 ppm (1-hr) 0.1 ppm (24-hr) 0.02 ppm (1-yr)	0.001 ppm	0.047 ppm	-	0.005 ppm	-	0.0005 ppm
Manganese in PM ₁₀	0.2 (24-hr)	-	-	0.024	0.044	-	0.008
Nickel in PM ₁₀	0.1 (24-hr); 0.02 (1-yr)	-	-	0.002	0.006	-	0.002
Copper in PM ₁₀	n/a	-	-	0.05	0.085	-	0.022
Iron in PM ₁₀	n/a	-	-	0.89	1.8	-	0.34
Lead in PM ₁₀	n/a	-	-	0.01	0.02	-	0.01
Chromium in PM ₁₀	n/a	-	-	0.004	0.008	-	0.002
Cadmium in PM ₁₀	n/a	-	-	0.27	3	-	0.096
Vanadium in PM ₁₀	n/a	-	-	0.005	0.01	-	0.005
Zinc in PM ₁₀	n/a	-	-	0.025	0.06	-	0.012

Greenstone Gold Mine’s Hardrock project is a proposed gold mine at Geraldton, Ontario. It is in a similar setting to the Bending Lake area. Stantec conducted monitoring at the site from December 2014 through June 2015. These data give a further indication of existing air quality conditions in the Bending Lake area. The data are summarized in Tables 11 and 12. The concentrations of PM, NO₂ and SO₂ are similar in magnitude but somewhat lower than those measured at Thunder Bay in 2015. The concentrations of all contaminants are well within their applicable AAQC’s.



Table 11: PM, NO₂ and SO₂ Measurements at the Hardrock Project Site (Geraldton) in 2015

Pollutant	Criteria (µg/m ³)	90th Percentile 1-hr	Maximum 1-hr	90th Percentile 24-hr	Maximum 24-hr	Period Average
PM ₁₀	50 (24-hr)	-	-	26	44	11
PM _{2.5}	28 (24-hr) 10 (1-yr)	-	-	9.2	26	4.9
NO ₂	0.2 ppm (1-hr) 0.1 ppm (24-hr)	0.0056	0.039	0.0059	0.011	0.0017
SO ₂	0.25 ppm (1-hr) 0.1 ppm (24-hr) 0.02 ppm (1-yr)	0.0008	0.0044	0.0007	0.0014	0.00028

Table 12: TSP and Metals Measurements at the Hardrock Project Site (Geraldton) in 2015

Pollutant	Criteria (µg/m ³)	90th Percentile 24-hr	Maximum 24-hr
TSP	120	26.4	40.9
Mercury in TSP	10	0.000015	0.00003
Lithium in TSP	4.8	0.0083	0.0084
Aluminum in TSP	4.8	0.23	0.27
Antimony in TSP	25	0.0031	0.0031
Arsenic in TSP	0.3	0.01	0.012
Barium in TSP	10	0.003	0.0004
Beryllium in TSP	0.01	0.00031	0.00031
Boron in TSP	120	0.0018	0.007
Cadmium in TSP	0.025	0.00062	0.00014
Chromium in TSP	n/a	0.0015	0.0016
Cobalt in TSP	0.1	0.00061	0.0016
Copper in TSP	50	0.29	0.38
Iron in TSP	4	0.63	0.72
Lead in TSP	0.5	0.0031	0.006
Magnesium in TSP	120	0.38	0.49
Manganese in TSP	0.4	0.012	0.013
Molybdenum in TSP	120	0.0046	0.016
Nickel	n/a	0.0012	0.0025
Potassium in TSP	8	0.1	0.16
Selenium in TSP	10	0.0031	0.0031
Silver in TSP	1	0.0015	0.0016



Pollutant	Criteria ($\mu\text{g}/\text{m}^3$)	90th Percentile 24-hr	Maximum 24-hr
Strontium in TSP	120	0.0021	0.0032
Thallium in TSP	0.2	0.0031	0.0031
Tin in TSP	10	0.0031	0.0031
Titanium in TSP	120	0.015	0.019
Vanadium in TSP	5	0.0015	0.0016
Zinc in TSP	120	0.014	0.13

5 CONCLUSIONS

This report has presented a summary of existing climate conditions in the Bending Lake area based on data from on-site weather stations and from Dryden Airport. It has also presented a summary of existing air quality conditions in the area, based on data from monitoring programs conducted in other locations that are reasonably similar to the Bending Lake area (Thunder Bay and Geraldton). The air quality data indicate that existing concentrations of air contaminants are well within acceptable levels, with the possible exception of fine particulate matter ($\text{PM}_{2.5}$) concentrations. The 24-hour levels of $\text{PM}_{2.5}$ may exceed the applicable Canadian Ambient Air Quality Standard, based on data from Thunder Bay. Occasional days of elevated particulate matter occur throughout northern Canada, as a result of various factors, such as forest fires, traffic on unpaved roads, etc.