2021 Groundwater Monitoring Program
Mary River Mine Project

PRESENTED TO

Baffinland Iron Mines Corporation

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LIMITATIONS OF REPORT

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1.0 INTRODUCTION

Baffinland Iron Mines Corporation (Baffinland) retained Tetra Tech Canada Inc. (Tetra Tech) for the provision of environmental consulting services pertaining to Baffinland's 2021 Groundwater Monitoring Program at the Mary River Mine Project (the Project). The Project site is located at the northern end of Baffin Island in the Qikiqtaaluk Region of Nunavut, Canada, and approximately 550 km north of the Arctic Circle (Figure 1).

The 2021 Groundwater Monitoring Program is a requirement of Baffinland's Project Certification No. 005 – Amendment No. 2 issued to Baffinland by the Nunavut Impact Review Board (NIRB) for the Project. Tetra Tech conducted the 2021 Groundwater Monitoring Program in accordance with Condition 23 of Project Certification No. 005 – Amendment No. 2 and focused on the assessment of potential impacts to groundwater as a result of the operations of the Landfill Facility and Mine Site Hazardous Waste Berm (HWB) area at the Project.

This document was prepared under Tetra Tech's Limitations on the Use of this Document (Appendix A).

1.1 Objective

The objectives of the 2021 Groundwater Monitoring Program were to:

- Monitor the Landfill Facility and Mine Site HWB area and provide recommendations on potential mitigations on any identified effects; and
- Determine potential sources of groundwater impacts and potential nearby receptors at additional areas of the Project currently without groundwater monitoring programs and propose a scope to establish groundwater monitoring programs within those areas.

1.2 Scope of Work

To meet the objectives, as per recommendations in the 2020 Groundwater Monitoring report (Tetra Tech 2021) and in consultation with Baffinland, the scope of work for the 2021 Groundwater Monitoring Program at the Project involved the following tasks:

- Task 1 – Desktop Assessment of the Mine Site HWB area.
- Task 2 – Fieldwork.
  - Task 2a – Temporary drive-point piezometer installation at the Mine Site HWB area.
  - Task 2b – 2021 groundwater monitoring and sampling at the Landfill Facility and Mine Site HWB area.
  - Task 2c – Observation of groundwater conditions within a test pit excavated in the vicinity of the Waste Rock Facility (WRF).
- Task 3 – Assessment of areas of potential groundwater impact in addition to the Landfill Facility and Mine Site HWB areas at the Project.
- Task 4 – 2021 Reporting Deliverable: the 2021 Groundwater Monitoring Program Report.

2.0 BACKGROUND INFORMATION

2.1 Site Description

The Mary River Mine is a high-grade iron ore mine on Baffin Island, approximately 1,000 km north of Iqaluit. The Landfill Facility located at the Project receives inert, non-combustible waste generated by Project activities including plastics, cement, used construction materials, scrap metal, pipes, glass, wood, etc. Hazardous wastes are stored in lined Hazardous Waste Berms (HWBs) or other suitable storage locations onsite and shipped offsite to approved hazardous waste disposal and recycling facilities. Combustible non-hazardous waste generated at the Project, such as food waste, food packaging, paper products, and cigarette butts are incinerated onsite in incinerators located in waste management buildings.

2.2 Groundwater Monitoring and Sampling at Landfill Facility

Baffinland has been conducting groundwater monitoring and sampling at the Landfill Facility since 2017, using temporary drive-point piezometers to monitor and collect groundwater samples near the bottom of the active layer (the layer above the permafrost; approximately 1.1 to 1.8 meters below ground [mbg]) in the vicinity of the Landfill Facility.

A geotechnical investigation conducted by Tetra Tech at the Project airstrip (located approximately 2 km from the Landfill Facility) in February 2019 concluded that the overburden overlying the ground ice consists of a gravelly sand (Tetra Tech 2019).

Since 2017, groundwater levels and quality have been monitored at the Landfill Facility using temporary drive-point piezometers advanced to depths of refusal; inferred to be the bottom of the active layer and the top of the permafrost. Due to the variability in groundwater quality, and to improve data collection repeatability, it was recommended in 2020 that permanent two-inch diameter monitoring wells be drilled, installed, and developed at the existing and proposed monitoring locations. In addition to use for collecting water level measurements and groundwater quality data, the permanent monitoring wells would be used to conduct hydraulic conductivity tests. Due to logistical difficulties in obtaining a drilling rig, and personnel for remote work, permanent wells could not be installed during the 2021 site visit. Therefore, the existing drive-point piezometers at the Landfill Facility were utilized in 2021. The installation of permanent monitoring wells will be considered in 2022 and incorporated into the 2022 Groundwater Monitoring Program and subsequent monitoring programs.

3.0 METHODS

The following sections describe the methods followed during the fieldwork and data evaluation portions of the 2021 Groundwater Monitoring Program at the Project.

3.1 Task 1 – Assessment of the Mine Site HWB

In September 2021, Tetra Tech reviewed available geological, hydrogeological, topographical, and other relevant information regarding the Mine Site HWB area to propose a groundwater monitoring network (locations, depths, etc.) and an analytical suite. Considerations were given to establishing potential chemicals of concern (PCOCs) and pathways connecting to nearby potential receptors. The proposed groundwater monitoring network and analytical suite was reviewed with Baffinland and subsequently finalized and implemented in 2021 under Task 2.

3.2 Task 2 – Fieldwork

The details of the Field Tasks are provided below.

3.2.1 Task 2a - Drive-Point Piezometer Installation at the Mine Site HWB Area

On September 19, 2021, Tetra Tech personnel assisted Baffinland personnel with the installation of the drive-point piezometers at eight (8) out of proposed ten (10) monitoring locations at the Mine Site HWB area. The locations were labelled as MS-HWB-GW3, MS-HWB-GW4, MS-HWB-GW5, MS-HWB-GW6, MS-HWB-GW7, MS-HWB-GW-REF1, MS-HWB-GW-REF2, and MS-HWB-GW-REF3. Proposed monitoring locations MS-HWB-GW1 and MS-HWB-GW2, to the north of the runway, could not be installed due to presence of hard compacted fill/construction pad material at these locations.

The proposed up-gradient location (MS-HWB-GW-REF1) was adjusted slightly due to presence of the hard compacted fill material observed during installation and was moved 44.3 m to the east. Drive-point piezometer MS-HWB-GW6 was found to be dry following installation.

Each drive-point piezometer was installed by advancing it by hand into the ground until the depth of refusal was reached. Depth of refusal was inferred to be the bottom of the active zone (top of the permafrost zone). Upon reaching the depth of refusal, the depth was recorded, and the location was assigned a well identification (ID). The drive-point piezometers installed at the Mine Site HWB area in 2021 were Solinst Model 615 Drive-Point Piezometers equipped with 5/8-inch x ½ inch low density polyethylene (LDPE) open tubing. The installation depths are presented in Table 1. Photographs of each monitoring location are provided in Appendix B.

3.2.2 Task 2b - Groundwater Monitoring and Sampling

The low-flow sampling method used during previous groundwater monitoring programs was continued in the 2021 Groundwater Monitoring Program.

On September 20, and 21, 2021, Tetra Tech and Baffinland personnel conducted the groundwater monitoring and sampling of each drive-point piezometer at the Landfill Facility. On September 26, 2021, Tetra Tech and Baffinland personnel conducted the groundwater monitoring and sampling of each drive-point piezometer at the Mine Site HWB area. The groundwater monitoring and sampling was conducted in accordance with Tetra Tech's monitoring and sampling work methods which meet industry standards and include:

- Inspecting the integrity of each drive-point piezometer.
- Measuring the groundwater depth, drive-point piezometer depth and top of pipe height using a Solinst Model 102 Coaxial Water Level Meter.
- Purging the standing water from each drive-point piezometer, prior to sampling, by low flow sampling until field parameters (pH, electrical conductivity [EC], temperature) are stabilized. The purged volume is provided in Table 2.
  - Purging was completed using a Solinst Model 410 Peristaltic Pump equipped with 5/8" outside diameter (OD) silicone open tubing. Discharge rate was kept at the lowest rate.
  - The parameters are considered stable when:
    - Temperature readings are within 0.2°C
    - pH readings are within 0.2 pH units
    - EC readings are within 3%

- Measuring field parameters (temperature, pH, and EC) using portable field equipment (YSI ProDSS Handheld Water Quality Meter) from a sample collected at each drive-point piezometer.
- Collecting groundwater samples in laboratory-supplied sampling containers, filtering and/or preserving samples as required by the laboratory and storing and transporting samples on ice in laboratory provided coolers. The groundwater samples collected were submitted by Baffinland personnel to ALS Environmental (ALS) in Yellowknife, Northwest Territories under Chain-of-Custody (CoC) for laboratory chemical analyses of the parameters as recommended in the desktop review report (Tetra Tech 2021).

Groundwater sample analysis for the Landfill Facility and the Mine Site HWB area are summarized in Table A.

Table A: Analytical Suite

Area	Groundwater Analytical Suite
Landfill Facility	▪ routine water quality parameters (pH, EC, total suspended solids [TSS], total dissolved solids [TDS], turbidity, and major ions) ▪ nutrients (Total kjeldahl nitrogen [TKN], ammonia, nitrate, total organic carbon [TOC], total phosphorus, dissolved organic carbon [DOC]) ▪ dissolved metals including mercury ▪ total metals ▪ oil and grease ▪ benzene, toluene, ethylbenzene, xylenes (BTEX) ▪ petroleum hydrocarbon (PHC) fractions F1 to F4
Mine Site HWB area	▪ routine water quality parameters (pH, EC, TSS, TDS, turbidity, and major ions) ▪ dissolved metals including mercury ▪ total metals ▪ oil and grease ▪ benzene, toluene, ethylbenzene, xylenes (BTEX) ▪ petroleum hydrocarbon (PHC) fractions F1 to F4 ▪ polycyclic aromatic hydrocarbons (PAHs) ▪ Volatile Organic Carbons (VOCs) ▪ total glycols (due to coolant)

Information on the analytical methods is provided with the ALS analytical reports attached in Appendix C.

3.2.2.1 Quality Assurance / Quality Control

The following Quality Assurance/Quality Control (QA/QC) protocols were used by Tetra Tech during the 2021 Groundwater Monitoring Program:

- All drive-point piezometers were purged prior to sampling using dedicated tubing;
- All monitoring and sampling equipment were cleaned or changed between monitoring locations to minimize the potential for cross-contamination;
- One blind duplicate sample, one field blank, and one equipment blank were collected during the monitoring event at each of the Landfill Facility and the Mine Site HWB area;
- A laboratory-prepared trip blank sample was transported with the samples collected from the Mine Site HWB area; and
- Groundwater samples were collected in laboratory supplied bottles and preserved as required, stored in a cooler with ice, and transported by Baffinland to ALS for chemical analysis.

Additionally, laboratory and field quality QA/QC procedures were followed to ensure analytical results were accurate and precise. The laboratory QA/QC program included the analysis of laboratory method blanks, duplicates, surrogate recovery, and chemical spikes. Surrogate recovery is analyzed by spiking samples with known quantities of surrogate chemicals which have similar chemical properties to the parameters being analyzed. The reported recovery provides an indication of the analytical method accuracy. Chemical spikes are conducted by adding known concentrations of the analyte of interest to a sample to evaluate the effects of the sample matrix on the analytical method. ALS is a Canadian Association for Laboratory Accreditation Inc. certified laboratory that uses recognized and certified methods to conduct laboratory analyses.

Monitoring Well Network – Landfill Facility

During the 2021 site visit, the drive-point piezometers installed in 2020 were observed to still be present, however, samples could not be collected as groundwater could not be brought to surface from four (4) locations (MS-LF-GW3, MS-LF-GW4, MS-LF-GW5, and MS-LF-GW-REF1).Therefore new drive-point piezometers were installed as close as possible to these previous 2020 drive-point piezometer locations. Groundwater samples could be collected from two (2) out of four (4) newly installed drive-point piezometers (MS-LF-GW3, and MS-LF-GW-REF1). However, groundwater could also not be brought to surface from two new locations (MS-LF-GW4 and MS-LF-G5). A groundwater sample also could not be collected from MS-LF-GW-REF3 due to insufficient amount of water in the drive-point piezometer.

Table B summarizes information about the drive-point piezometers monitored during the 2017 to 2021 monitoring programs, including drive-point piezometer depths and distances from the previous monitoring locations. The locations are shown on Figure 2. The sampling nomenclature used in 2021 included the well ID as in previous years (example MS-LF-GW1) and also the full date of sample collection.

Similar to the 2017 to 2020 monitoring programs, the 2021 monitoring event was conducted in September; the time at which the permafrost active layer within the Project area is expected to be at its maximum depth during the year.

The measured depths of the active layer during the 2021 Groundwater Monitoring Program ranged between 0.8 m at MS-LF-GW5-21 (newly installed drive-point piezometer) to 1.89 at MS-LF-GW1, which is consistent with active layer depths measured in 2020 and in previous years.

Table B: Summary of Monitoring Locations and Depths – Landfill Facility

Monitoring Location	Sampling ID	Sample Year	Easting (UTM; NAD83; Zone 17 N)	Northing (UTM; NAD83; Zone 17 N)	Distance Between Previous Monitoring Event (m)	Depth to Active Layer (mbg)[1]
Down-gradient – GW1	MS-LF-GW1-17	2017	560809	7912608	-	1.3
	MS-LF-GW1-18	2018	560817	7912598	12	1.1
	MS-LF-GW1-19	2019	560816	7912599	1	1.8
	MS-LF-GW1-20	2020	560816	7912599	0	1.8
	MS-LF-GW1_2021-09-20	**2021**	**560816**	**7912599**	**0**	**1.9**
Down-gradient – GW2	MS-LF-GW2-17	2017	560811	7912487	-	1.3
	MS-LF-GW2-18	2018	560812	7912487	0.5	1.2
	MS-LF-GW3-19[2]	2019	560812	7912486	1	1.6

Monitoring Location	Sampling ID	Sample Year	Easting (UTM; NAD83; Zone 17 N)	Northing (UTM; NAD83; Zone 17 N)	Distance Between Previous Monitoring Event (m)	Depth to Active Layer (mbg)[1]
	MS-LF-GW2-20	2020	560812	7912486	0	1.6
	MS-LF-GW2_2021-09-20	**2021**	**560812**	**7912486**	**0**	**1.7**
Down-gradient – GW3	MS-LF-GW3-17	2017	560825	7912467	-	1.1
	MS-LF-GW3-18	2018	560822	7912461	7	1.0
	MS-LF-GW2-19[2]	2019	560823	7912460	0.7	1.8
	MS-LF-GW3-20	2020	560823	7912460	0	1.8
Down-gradient – GW3[3]	**MS-LF-GW3_2021-09-21**	**2021**	**560822**	**7912461**	**1.4**	**1.8**
Down-gradient – GW4	MS-LF-GW4-20	2020	560753	7912485	-	1.6
Down-gradient – GW4[3]	**MS-LF-GW4-21 (no sample collected)**	**2021**	**560752**	**7912493**	**8.6**	**1.4**
Down-gradient – GW5	MS-LF-GW5-20	2020	560714	7912483	-	1.7
Down-gradient – GW5[3]	**MS-LF-GW5-21 (no sample collected)**	**2021**	**560715**	**7912485**	**2.2**	**0.8**
Up-gradient – REF1	MS-LF-GW-REF1-18	2018	560840	7912639	-	0.8
	MS-LF-GW-REF1-19	2019	560838	7912637	2	1.1
	MS-LF-GW-REF1-20	2020	560838	7912637	0	1.1
Up-gradient – REF1[3]	**MS-LF-GW-REF1_2021-09-21**	**2021**	**560817**	**7912598**	**44.3**	**1.1**
Up-gradient – REF2 south	MS-LF-GW-REF2-17	2017	561118	7912248	-	1.5
Up-gradient – REF2	MS-LF-GW-REF2-18	2018	560875	7912406	-	1.1
	MS-LF-GW-REF2-19	2019	560878	7912408	4	1.6
	MS-LF-GW-REF2-20	2020	560878	7912408	0	1.6
	MS-LF-GW-REF2_2021-09-20	**2021**	**560878**	**7912408**	**0**	**1.7**
Up-gradient – REF3[3]	MS-LF-GW-REF3-20	2020	560951	7912606	-	1.1
	MS-LF-GW-REF3-21 (no sample collected)	**2021**	**560951**	**7912606**	**0**	**1.1**

1 Meters below ground (mbg)

2 Samples collected from MS-LF-GW2 and MS-LF-GW3 during the September 2019 groundwater sampling event are suspected to have been interchanged as detailed in Tetra Tech 2021.

3 Additional drive-point piezometers installed in 2021.

Bold Signifies 2021 sample location

Monitoring Well Network – Mine Site HWB Area

Table C summarizes information about the drive-point piezometers installed and monitored during the 2021 Groundwater Monitoring Program at the Mine Site HWB area, including drive-point piezometer depths. The locations of the drive-point piezometers are shown on Figure 3.

Groundwater samples could not be collected from MS-HWB-GW-REF1 and MS-HWB-GW6 in 2021 due to insufficient amount of water present in these drive-point piezometers.

The measured depths of the active layer during the 2021 Groundwater Monitoring Program ranged between 1.25 mbg at MS-HWB-GW7 to 1.52 mbg at MS-HWB-GW-REF3.

Table C: Summary of Monitoring Locations and Depths – MSHWB Area

Sampling ID	Easting (UTM; NAD83; Zone 17 N)	Northing (UTM; NAD83; Zone 17 N)	Depth to Active Layer (mbg)[1]
MS-HWB-GW3	558267	7914463	1.49
MS-HWB-GW4	558267	7914545	1.50
MS-HWB-GW5	558156	7914588	1.36
MS-HWB-GW6	558058	7914430	1.45
MS-HWB-GW7	558195	7914542	1.26
MS-HWB-GW-REF1	560817	7912598	1.40
MS-HWB-GW-REF2	558362	7914482	1.45
MS-HWB-GW-REF3	558315	7914418	1.52

1 Meters below ground (mbg)

3.2.3 Task 2c – Groundwater Conditions at Waste Rock Facility (WRF)

On September 25, 2021, Tetra Tech's field personnel observed the excavation of two (2) test pits in the vicinity of the WRF. The purpose of this task was to observe groundwater conditions and assess the feasibility of establishing a groundwater monitoring network in this area. Baffinland supplied an excavator and an operator, determined suitable test pit locations, and supported Tetra Tech's field personnel during the assessment.

3.3 Task 3 – Assessment of Areas of Potential Groundwater Impacts

To date, the Groundwater Monitoring Program at the Project has focused on the Landfill Facility and, in 2021, was expanded with the incorporation of the Mine Site HWB area into the 2021 Groundwater Monitoring Program. Assessment of areas of potential groundwater impact in addition to the Landfill Facility and Mine Site HWB area at the Project was conducted in 2021 by means of a site reconnaissance survey and review of available information (a desktop assessment).

Tetra Tech conducted a site reconnaissance survey on September 4, 6, and 9, 2021 to determine if other Project areas could potentially affect the groundwater and whether future monitoring programs are required for these areas. The information obtained during the reconnaissance survey was assessed in conjunction with available geological, hydrogeological, topographical, and other relevant information to determine potential sources of groundwater impacts, existing pathways, and potential nearby receptors. Based on the review of information, future monitoring plans (including monitoring networks and analytical suits) for additional Project areas are proposed. This work is currently under review between Tetra Tech and Baffinland.

4.0 RESULTS

The results of the 2021 Groundwater Monitoring Program are presented in Section 4.1, Section 4.2 and Section 4.3.

4.1 Groundwater Elevations and Flow Direction

4.1.1 Landfill Facility

A summary of the drive-point piezometer monitoring depths at the Landfill Facility, groundwater level measurements collected between 2017 and 2021, and calculated groundwater elevations are provided in Table 1. The 2021 groundwater elevation contours at the Landfill Facility are illustrated on Figure 4. Hydrographs of each well are presented on Figure 5.

Depth to groundwater at the Landfill Facility measured in 2021 ranged from 0.29 mbg (MS-LF-GW-REF1) to 1.42 mbg (MS-LF-GW4).

The contoured groundwater elevations suggest that the shallow groundwater flow direction across the Landfill Facility in 2021 was towards the southwest under an estimated horizontal hydraulic gradient of 0.05 m/m (Figure 4). This result is consistent with historical results and with the local surface slope in the area, demonstrating that the shallow groundwater flow within the active zone is influenced by the local topography.

Groundwater elevations at each drive-point piezometer have remained generally stable since monitoring began in 2017 (Figure 5).

Once permanent 2-inch diameter monitoring wells are installed, hydraulic conductivity tests of the active zone will be conducted to estimate groundwater flow velocity.

4.1.2 Mine Site HWB Area

A summary of the drive-point piezometer monitoring depth at the Mine Site HWB area, groundwater level measurements collected in 2021, and calculated groundwater elevations are provided in Table 1. The 2021 groundwater elevation contours at the Mine Site HWB area are illustrated on Figure 6. Hydrographs are not provided for the drive-point piezometers at the Mine Site HWB area as 2021 is the first monitoring event conducted in this area.

Depth to groundwater at the Mine Site HWB area measured in 2021 ranged from 0.50 mbg (MS-HWB-GW-REF3) to 0.79 mbg (MS-HWB-GW-GW3).

The 2021 contoured groundwater elevations suggest that the shallow groundwater flow direction across the Mine Site HWB area was towards the west and southwest, towards Camp Lake located approximately 300 m to the west and southwest of the Mine Site HWB area, under an estimated horizontal hydraulic gradient of 0.005 m/m (Figure 6). This result is consistent with the local surface topography in the area.

4.2 Groundwater Analytical Results

4.2.1 Data Evaluation

Currently, there are no established groundwater guidelines for Nunavut. In recognizing the need for a nationally consistent approach for assessing and managing groundwater at federal contaminated sites, Environment Canada developed the Federal Interim Groundwater Quality (FIGQ) Guidelines which are based on a critical review and evaluation of existing approaches used by other jurisdictions in Canada and in other countries. The FIGQ Guidelines were developed as an interim measure until Canadian Environmental Quality Guidelines (CEQGs) for groundwater are available.

In Canada, the Canadian Water Quality Guidelines (WQGs) provide a consistent basis for assessing water quality conditions. These WQGs are derived for the protection of four major water uses (CCME 1999), including: (i) Drinking water supply; (ii) Recreational use and aesthetics; (iii) Freshwater and marine aquatic life and wildlife; and (iv) Agricultural water uses (irrigation and livestock watering). The Canadian WQGs are intended to protect the designated uses of aquatic ecosystems throughout the country. Nevertheless, it is possible that the guidelines are over- or under-protective at sites with unique conditions. In developing site-specific WQG, objectives are developed by identifying the most sensitive water use and adjusting the WQG for that water use to account for the site- specific factors. While this approach is effective at most sites, atypical conditions exist at certain locations which necessitate further modification of the generic WQGs.

The current land use at the Project is industrial. As per the geotechnical investigation conducted in 2019, the overburden overlying the ground ice consists of a gravelly sand (Tetra Tech 2019). Therefore, the groundwater quality at the Project was compared to the FIGQ Tier 1 (generic groundwater guidelines) for Industrial/Commercial land use based on coarse soil type and if absent, the 2019 Canadian Council of Ministers of the Environment (CCME) Water Quality Guidelines for the Protection of Aquatic Life (Freshwater, Updated 2019) was used for comparison purposes.

4.2.2 Landfill Facility

Between September 20 -21, 2021, groundwater samples were collected from three (3) drive-point piezometers (MW-LF-GW1, MW-LF-GW2, and MW-LF-GW3) located down-gradient of the Landfill Facility and from two (2) reference monitoring piezometers (MW-LF-GW-REF1 and MW-LF-GW-REF2) located up-gradient of the Landfill Facility. The groundwater samples collected from the MS-LF-GW3 and MS-LF-REF1 locations were from the newly installed drive-point piezometer as groundwater could not be brought to the surface for sample collection from the 2020 well point piezometers. Additionally, new drive point piezometers were also installed at MS-LF-GW4, and MS-LF-GW-REF3; however, groundwater could also be brought to the surface for sample collection from these two locations. MS-LF-GW5 was dry at the time of sampling.

The groundwater quality results for the samples collected during the 2021 Groundwater Monitoring Program are presented in Table 2 and the laboratory certificate of analysis is presented in Appendix C.

All parameters analyzed in all samples were within the FIGQ Guidelines with the exception of:

- Chloride concentrations ranged from 5.16 mg/L (MS-LF-GW-REF1) to 340 mg/L (MS-LF-GW1) and were greater than the FIGQ Guideline (120 mg/L) at MS-LF-GW1 (340 mg/L).
- Sulphate concentrations ranged from 21.1 mg/L (MS-LF-GW-REF1) to 1,190 mg/L and were significantly greater than the FIGQ Guideline of 100 mg/L at MS-LF-GW1 (1,190 mg/L) and MS-LF-GW2 (1,020 mg/L), and were marginally greater than the FIGQ Guideline at MS-LF-GW3 (165 mg/L).

- Dissolved metal parameters including boron, cadmium, lead, nickel, and uranium, and total metal parameters including boron, cadmium, chromium, lead, nickel, titanium, and uranium concentrations were greater than their respective FIGQ Guidelines at one or more of the down-gradient drive-point piezometers in 2021; however, these metal exceedances were not detected at any of the reference locations.
- Dissolved silver was reported below the laboratory detection limit (LDL, 0.0005 mg/L) at all monitoring locations; however, the LDL is greater than the FIGQ Guideline of 0.00025 mg/L.
- Dissolved copper, and total metal parameters including aluminum, copper, iron, and zinc were greater than their respective FIGQ Guidelines at one or more drive-point piezometers in 2021 including at one of the reference locations (MS-LF-GW-REF2).

Total phosphorus was reported greater than the CCME Guideline (no FIGQ Guideline available for total phosphorous) at all monitoring locations sampled in 2021 and ranged from 0.0315 mg/L (MS-LF-GW-REF1) to 0.152 mg/L (MS-LF-GW2).

During the 2021 Groundwater Monitoring Program, BTEX, and PHC fraction F1 to F4 were less than their respective LDL.

DOC concentrations at the down-gradient monitoring locations ranged from 4.34 mg/L (MS-LF-GW3) to 28.6 mg/L (MS-LF-GW1) during the 2021 Groundwater Monitoring Program. DOC concentrations at the reference locations ranged from 2.83 to 4.48 mg/L. The greatest concentrations were measured at down-gradient locations MS-LF-GW1 (28.6 mg/L) and MS-LF-GW2 (20.8 mg/L).

TOC concentrations at the down-gradient monitoring locations ranged from 5.03 mg/L (MS-LF-GW3) to 30.3 mg/L (MS-LF-GW1). TOC concentrations at the reference locations ranged from 3.65 to 5.88 mg/L. The greatest concentrations were reported at down-gradient locations MS-LF-GW1 (30.3 mg/L) and MS-LF-GW2 (21.6 mg/L). There are no FIGQ Guidelines for DOC or TOC.

Statistical trend analysis was conducted to evaluate the significance of changes in groundwater quality over time. Parameters selected for statistical trend analysis included chloride, sulphate, and dissolved metals parameters: boron, cadmium, iron, lead, manganese, nickel, and uranium. These parameters were greater than the FIGQ or CCME Guidelines at one or more of the piezometers since monitoring began in 2017. The trend analysis was conducted using the non-parametric Mann Kendall method for results of all previously installed piezometers with sufficient data points. The piezometers installed in 2020 and 2021 had only one (1) to two (2) data points, and therefore, were not included in the trend analysis. The Mann Kendall analysis was conducted with a confidence level of 95%. The results of the trend analysis are provided in Table 2 following the analytical results. Graphs showing concentration over time for chloride, sulphate, and select dissolved metals parameters are presented on Figure 7.

A summary of the trend analysis results is provided in Table D. Parameters not listed in Table D did not show an increasing or decreasing trend.

Table D: Summary of Statistical Trend Analysis Results

Parameter	Location with Trend	Trend	2021 Concentration Greater than FIGQ Guideline (Yes/No)	Comment
Chloride	MS-LF-GW1	Decreasing	Yes	
Sulphate	MS-LF-GW1	Increasing	Yes	
	MS-LF-GW2	Increasing	Yes	
Dissolved Iron	MS-LF-GW1	Increasing	No	Greater than the guideline in 2020 only
Dissolved Nickel	MS-LF-GW2	Increasing	Yes	Greater than the guideline since 2019
Dissolved Uranium	MS-LF-GW1	Increasing	Yes	Greater than the guideline since 2019
	MS-LF-GW2	Increasing	Yes	Greater than the guideline since 2019

4.2.2.1 Quality Assurance and Quality Control

The Landfill Facility field QA/QC program included the collection of a blind duplicate sample, the submission of blind equipment, trip, and field blanks, and the use of CoC forms to track sample handling between the field and the laboratory. In addition, sample hold times and temperatures were evaluated to determine if these parameters exceeded Tetra Tech, laboratory, or method QA/QC limits.

The groundwater QA/QC analytical results for 2021 are presented in Table 3. Tetra Tech collected duplicate groundwater samples from MS-LF-GW2 (MS-LF-GW201_2021-09-20) on September 20, 2021, as part of the QA/QC program for the 2021 Groundwater Monitoring Program and submitted the duplicate sample to ALS for chemical analysis. Most parameters analyzed in the duplicate sample had a relative percent difference (RPD) less than 30%, with the exception of several total metal parameters including: aluminum (RPD 147%), arsenic (RPD 34%), barium (RPD 30%), cesium (RPD 115%), cobalt (RPD 32%), copper (RPD 33%), iron (RPD 150 %), lead (RPD 122%), silicon (RPD 56%), and titanium (156%).

The field blank and equipment blank reported TDS and DOC greater than their respective detection limits, suggesting potential laboratory influence on the analysis of these parameters. The field blank also reported TSS greater than the detection limit. The equipment blank reported total phosphorus, TOC, dissolved metals parameters: copper, magnesium, and tin, and total metals parameters: aluminum, barium, calcium, iron, and magnesium greater than the respective detection limits. The detection of parameters in the equipment blank suggests potential equipment influence on the analysis of these parameters.

All samples were received by the laboratory at temperatures below the alert limit of 10ºC and were analyzed within the method hold time. Based on the results of the QA/QC program, overall, the analytical results are considered to be reliable. No other field or laboratory QA/QC issues were identified.

4.2.3 Mine Site HWB Area

On September 26, 2021, groundwater samples were collected from four (4) drive-point piezometers (MW-HWB-GW3, MW-HWB-GW4, MW-HWB-GW5, and MW-HWB-GW7) located down-gradient of the Mine Site HWB area and two (2) reference monitoring piezometers (MW-HWB-GW-REF2 and MW-HWB-GW-REF3) located up-gradient of the Mine Site HWB area. A sample could not be collected from MS-HWB-GW6 and MS-HWB-GW-REF1 due to insufficient amount of water for sample collection and frozen conditions, respectively.

Analytical groundwater quality results for the samples collected during the 2021 Groundwater Monitoring Program are presented in Table 2 and the laboratory certificate of analysis is presented in Appendix C.

All parameters were within the FIGQ Guidelines with the exception of:

- Dissolved copper, dissolved nickel, and total metal parameters including aluminum, copper, iron, and nickel were greater than their respective FIGQ Guidelines at one or more drive-point piezometers during the 2021 Groundwater Monitoring Program, including at one or more of the reference locations.

Total phosphorus was reported less than the LDL (0.05 mg/L) at all monitoring locations sampled in 2021, including all reference locations; however, the LDL was greater than the CCME Guideline.

All hydrocarbon parameters (BTEX, PHC F1 to F4) were less than their respective LDL with the exception of ethylbenzene, xylene, and PHC F2 reported at MS-HWB-GW7 and xylenes and PHC F2 reported at MS-HWB-GW3. The detected hydrocarbon parameters were reported below the respective FIGQ Guidelines.

All PAH parameters were reported below their respective FIGQ Guidelines with the exception of naphthalene which was reported above the FIGQ Guideline at MS-HWB-HW7.

Since sampling was conducted for the first time at the Mine Site HWB area in 2021, statistical analysis could not be completed.

4.2.3.1 Quality Assurance and Quality Control

The Mine Site HWB field QA/QC program included the collection of a blind duplicate sample, the submission of blind equipment, trip and field blanks, and the use of CoC forms to track sample handling between the field and the laboratory. In addition, sample hold times and temperatures were evaluated to determine if these parameters exceeded Tetra Tech, laboratory, or method QA/QC limits.

The groundwater QA/QC analytical results for 2021 are presented in Table 3. Tetra Tech collected duplicate groundwater samples from MS-HWB-REF3 (MS-HWB-REF301_201-09-20) on September 26, 2021, as part of the QA/QC program for the 2021 Groundwater Monitoring Program and submitted the duplicate sample to ALS for chemical analysis. Most parameters analyzed in the duplicate sample had RPD values less than 30%, with the exception of turbidity (RPD 107%), and total metals parameters including: aluminum (81%), cesium (41%), iron (87%), lead (51%), nickel (32%), and titanium (93%).

The field blank, equipment blank, and trip blank reported TDS, TOC, total magnesium, chloroform, and 1,2-dichloroethene (trans) greater than their respective detection limits, suggesting potential laboratory influence on the analysis of these parameters. The field blank also reported several dissolved metals parameters greater than their respective detection limit including aluminum, barium, lead, magnesium, manganese, rubidium, silicon, and titanium; and total metal parameters including aluminum, barium, iron, manganese, rubidium, and silicon; as well as trihalomethanes. The equipment blank reported alkalinity (total as $CaCO^3$), ammonia as N, dissolved calcium, dissolved magnesium, total calcium, and total sodium greater than the respective detection limits. The detection of parameters in the equipment blank suggests potential equipment influence on the analysis of these parameters. The equipment and trip blanks reported total kjeldahl nitrogen and DOC greater than the respective detection limits.

All samples were received by the laboratory at temperatures below the alert limit of 10ºC and were analyzed within the method hold time. Based on the results of the QA/QC program, the analytical results are considered to be reliable. No other field or laboratory QA/QC issues were identified.

4.3 Test Pit Excavation at Waste Rock Facility

The two (2) test pits at the WRF were advanced to excavator refusal (permafrost) at a depth of 1.55 mbg at MS-WRF-TP1 and 1.75 mbg at MS-WRF-TP2. The lithology observed in the two test pits consisted of a silty, coarse-grained sand, with trace clay, large cobbles and gravel, loose, dry to moist, reddish brown with iron staining throughout. No visible groundwater was encountered; however, the soil at MS-WRF-TP2 had higher moisture content than observed at MS-WRF-TP1. The large cobbles and gravel may make groundwater monitoring via drive-point piezometer difficult and therefore a drilling rig is recommended for monitoring well installation in this area.

5.0 DISCUSSION

5.1 Landfill Facility

5.1.1 Routine Water Chemistry

No trends in chloride concentrations were observed at the two (2) piezometers (MS-LF-GW2 and MS-LF-GW3) where chloride concentrations exceeded the FIGQ Guideline, suggesting that the presence of chloride concentrations at the down-gradient piezometers are stable. A decreasing trend in chloride concentrations was observed at MS-LF-GW1; however, the chloride concentration reported in 2021 was comparable to 2020 at this well and within an order of magnitude of historical concentrations.

The greatest chloride concentration reported in 2021 at the Landfill Facility was at down-gradient piezometer MS-LF-GW1 (340 mg/L), located along the southwest side of the Landfill Facility. The chloride exceedance at MS-LF-GW3, also located in the immediate vicinity of the Landfill Facility, is also two (2) orders of magnitude greater than the reference location concentrations. At further down-gradient piezometers (MS-LF-GW4 and MS-LF-GW5), chloride concentrations did not exceed the FIGQ Guideline, suggesting a potential chloride impact which is limited to the immediate vicinity of the Landfill Facility.

Sulphate concentrations reported in 2021 at the down-gradient piezometers MS-LF-GW1 (1,190 mg/L) and MS-LF-GW2 (MS-FF-GW2) were two (2) orders of magnitude greater than the two (2) reference locations sampled in 2021. Sulphate concentrations reported at the down-gradient locations MS-LF-GW1, MS-LF-GW2, and MS-LF-GW3 have increased since monitoring began in 2017 by one (1) to two (2) orders of magnitude, as confirmed in the increasing trend of sulphate (Table D), indicating the presence of potential sulphate impact which is limited to the immediate vicinity of the Landfill Facility.

5.1.2 Dissolved Metals

Dissolved copper and total metal parameters including aluminum, copper, iron, and zinc were greater than their respective FIGQ Guidelines at one (1) or more drive-point piezometers, including at the reference locations, during the 2021 Groundwater Monitoring Program. Dissolved copper is interpreted to be naturally occurring at elevated concentrations at the Project site due to the elevated presence at the background locations. Total metals typically do not quantitatively provide information of facility impacts as the results could be influenced by other factors such as turbidity, sediment content, and surface water infiltration, etc. Total metals are not analyzed unless a direct consumption of water is anticipated (e.g., if a domestic use aquifer is involved). Dissolved metals results are more representative of the constituents in groundwater, and therefore, it is recommended to discontinue the analysis of total metals. As detailed in the Guidance Document on FIGQG for Federal Contaminated Sites for inorganics, the

FIGQG generally apply to dissolved concentrations and therefore filtration for dissolved parameter analysis is required (Environment Canada 2016).

Dissolved metal parameters including boron, cadmium, lead, nickel, and uranium, and total metal parameters including boron, cadmium, chromium, lead, nickel, titanium, and uranium concentrations were greater than their respective FIGQ Guideline at one (1) or more down-gradient piezometers during the 2021 Groundwater Monitoring Program and were less than the respective FIGQ at the reference location piezometers. Trend analysis was performed on dissolved metals parameters boron, cadmium, iron, lead, manganese, nickel, and uranium (Table 2).

Increasing trends in dissolved iron and dissolved uranium concentrations were observed at MS-LF-GW1 with concentrations greater than the FIGQ in 2021 (Table 2). Increasing trends in dissolved nickel and dissolved uranium concentrations were observed at MS-LF-GW2 with concentrations greater than the FIGQ Guidelines and reference location concentrations since 2019 (Table 2). The dissolved metals showing increasing trends and concentrations greater than the FIGQ Guidelines and reference locations may indicate groundwater quality impacts due to dissolution from the metal debris that has been disposed in the Landfill Facility; however, additional monitoring is recommended to verify the observed trends.

5.1.3 Hydrocarbons and Oil and Grease

BTEX and PHC fractions F1 to F4 were non-detect in all samples analyzed in 2021.

TOC and DOC concentrations measured at MS-LF-GW1 and MS-LF-GW2 were one (1) order of magnitude greater than the concentrations measured at other locations.

The elevated TOC and DOC detected during the 2021 Groundwater Monitoring Program combined with historical detection of oil and grease in 2017 and 2018, and PHC fraction F1 in 2020, suggests the presence of potential petroleum hydrocarbon impacts in the groundwater at the two (2) piezometers (MS-LF-GW1 and MS-LF-GW2) located in close vicinity of the Landfill Facility.

5.2 Mine Site HWB Area

5.2.1 Routine Water Chemistry

Routine parameters including chloride, TDS, and sulphate were within their respective FIGQ Guidelines indicating no impact of routine parameters at the monitored locations within the Mine Site HWB area in 2021.

5.2.2 Dissolved Metals

Dissolved copper, dissolved nickel, and total metal parameters including aluminum, copper, iron, and nickel were greater than their respective FIGQ Guidelines at one (1) or more drive-point piezometers, including at the reference locations, during the 2021 Groundwater Monitoring Program. As detailed in section 5.1.2, dissolved copper is interpreted to be naturally occurring at elevated concentrations at the Project site due to the presence at elevated concentrations in the background locations. As mentioned above, total metals typically do not quantitatively provide information of facility impacts as the results could be influenced by other factors such as turbidity, sediment content, and surface water infiltration, etc.

5.2.3 Hydrocarbons and Oil and Grease

Reported concentrations of ethylbenzene, xylene, and PHC F2 and PAH parameter (naphthalene) at MS-HWB-GW7 and the reported concentration of xylenes and PHC F2 at MS-HWB-GW3 suggest potential groundwater impact at these two (2) monitoring locations. To further evaluate the potential PHC impacts, sampling will be conducted in 2022.

6.0 CONCLUSIONS

6.1 Landfill Facility

Groundwater monitoring conducted from 2017 to 2021 suggests that landfill operations have impacted the groundwater quality at the monitoring locations in the immediate vicinity of the Landfill Facility (MS-LF-GW1, MS-LF-GW2, and MS-LF-GW3). Pertinent findings of the 2021 Groundwater Monitoring Program at the Landfill Facility are:

- The contoured groundwater elevations for 2021 suggest that the shallow groundwater flow direction across the Landfill Facility is towards the southwest under an estimated horizontal hydraulic conductivity of 0.05 m/m. This result is consistent with historical results and with the local surface topography in the area.
- At MS-LF-GW1, MS-LF-GW2, and MS-LF-GW3, located in the vicinity of the Landfill Facility, the chloride and sulphate concentrations were greater than the FIGQ Guidelines and were elevated compared to concentrations observed at the reference locations and further down-gradient piezometers. This suggests the presence of potential groundwater impacts due to landfill operations; however, the results suggest the potential impacts are limited to the immediate vicinity of the Landfill Facility.
- Dissolved metal parameters including boron, cadmium, copper, lead, nickel, and uranium exceeded their respective FIGQ Guideline at one (1) or more down-gradient monitoring locations including MS-LF-GW1, MS-LF-GW2 and MS-LF-GW3. Also increasing trends in sulphate and select dissolved metals parameters were observed at MS-LF-GW1, and MS-LF-GW2. This also suggests the presence of groundwater impacts due to landfill operations; however, these results also suggest the potential impacts are limited to the immediate vicinity of the Landfill Facility.
- The presence of elevated dissolved copper at hydraulically up-gradient reference locations suggests that copper may be naturally occurring; however, this will need to be further confirmed with future monitoring.
- The elevated RPD in the QA/QC total metals results may be attributed to metal parameters sorbing to soil particles in the sample, potentially providing false elevated values.

6.2 Mine Site HWB Area

Pertinent findings of the 2021 Groundwater Monitoring Program at the Mine Site HWB area are:

- The contoured groundwater elevations for 2021 suggest that the shallow groundwater flow direction across the Mine Site HWB area is towards the west and southwest under an estimated horizontal hydraulic gradient of 0.005 m/m. This result is consistent with the local surface topography in the area.
- At MS-HWB-GW3 and MS-HWB-GW7, located in the central portion of the Mine Site HWB area, PHC and PAH parameters were detected and were elevated compared to concentrations observed at the reference locations and further down-gradient piezometers. This suggests the potential presence of groundwater impacts due to hazardous waste storage; however, the results suggest the potential impacts are limited to the central portion of the Mine Site HWB area. These results will need to be further confirmed with future monitoring.

7.0 RECOMMENDATIONS

Based on analysis of the monitoring results from the 2017 to 2021 Groundwater Monitoring Programs at the Landfill Facility and the analysis of the 2021 Groundwater Monitoring Program at the Mine Site HWB area, the recommendations for the 2022 Groundwater Monitoring program and future monitoring programs are:

- Install 2-inch diameter permanent monitoring wells at the same locations monitored during the 2021 Groundwater Monitoring Program. The permanent monitoring wells will be used to collect water level measurements and groundwater quality data, and to conduct hydraulic conductivity tests to estimate groundwater flow velocity.
- Continue the annual monitoring program in 2022 to better understand the natural groundwater chemistry at the Project site and to confirm historical water quality concentrations and trends.
- Discontinue the analysis of total metals as dissolved metals results are more representative for assessing groundwater quality impacts.
- Analyze dissolved silver at laboratory detection limit less than the FIGQ Guideline of 0.00025 mg/L.

Analytical parameters recommended for analysis in 2022 and in subsequent years are presented in Table E.

Table E: Proposed Analytical Schedule for 2022

Area	Proposed Analytical Suite
Landfill Facility	▪ Routine chemistry including all hardness, and major ions ▪ Nutrients (ammonia and nitrate) ▪ Dissolved metals ▪ TOC and DOC ▪ Oil and grease ▪ BTEX ▪ PHC fractions F1 to F4
Mine Site Hazardous Waste Berm Area	▪ Routine chemistry including all hardness, and major ions ▪ Dissolved metals ▪ Volatile Organic Carbon (VOC) ▪ Total Glycols ▪ PAH ▪ BTEX ▪ PHC fractions F1 to F4

If groundwater quality impacts and trends observed between 2017 and 2021 are confirmed during the 2022 Groundwater Monitoring Program at the Landfill Facility, a risk assessment is recommended to assess potential impacts to any nearby receptor(s) at the Project site. If risks to nearby receptor(s) are identified, implementation of a risk management plan/remediation action plan is recommended.

8.0 CLOSURE

We trust this document meets your present requirements. If you have any questions or comments, please contact the undersigned.

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TABLES

Table 1: Groundwater Monitoring Data

Well Location	Coordinates[1]		Drive-Point Peizometer Installation Summary					Groundwater Monitoring			
	Easting*	Northing*	Installation Date	Top of Casing Elevation* (masl)	Ground Surface Elevation* (masl)	Stick Up (m)	Peizometer Total Depth (mbTOC)	Date Monitored	Groundwater levels (mBTOC)	Groundwater Levels (mbg)	Groundwater Elevation (masl)
Landfill Area											
MS-LF-GW1	560815.921	7912598.776	27-Sep-2019	179.347	179.232	0.12	2.10	15-Sep-2018[2]	-	-	179.09
								27-Sep-2019[3]	-	-	178.58
								13-Sep-2020	1.26	1.15	178.09
						0.15	2.04	20-Sep-2021	1.11	0.96	178.24
MS-LF-GW2	560811.958	7912485.875	28-Sep-2019	178.493	178.133	0.36	2.10	16-Sep-2018[2]	-	-	177.25
								28-Sep-2019[3]	-	-	177.01
								13-Sep-2020	1.54	1.18	176.95
						0.38	2.04	20-Sep-2021	1.42	1.05	177.07
MS-LF-GW3	560822.564	7912460.266	28-Sep-2019	178.229	178.049	0.18	2.10	16-Sep-2018[2]	-	-	177.66
								28-Sep-2019[3]	-	-	177.30
								13-Sep-2020	0.97	0.79	177.26
						0.13	2.04	20-Sep-2021	1.21	1.08	177.02
	560822.460	7912461.016	21-Sep-2021	178.839	178.053	0.58	2.04	21-Sep-2021	1.32	0.74	177.52
MS-LF-GW4	560751.706	7912492.71	3-Sep-2020	176.192	175.792	0.40	1.61	13-Sep-2020	1.41	1.01	174.78
							1.64	20-Sep-2021	1.42	1.42	174.77
	560752.211	7912492.747	21-Sep-2021	176.278	175.806	0.40	2.04	21-Sep-2021	1.41	1.01	174.87
MS-LF-GW5	560715.134	7912483.861	3-Sep-2020	173.028	172.698	0.33	1.72	13-Sep-2020	Dry		
						0.32	2.04	20-Sep-2021	Dry		
	560715.11	7912484.508	21-Sep-2021	173.339	172.713	0.62	2.04	21-Sep-2021	Dry		
MS-LF-GW-REF1	560838.181	7912637.291	27-Sep-2019	179.827	179.777	0.05	1.50	15-Sep-2018[2]	-	-	179.62
								27-Sep-2019[3]	-	-	179.19
								13-Sep-2020	0.83	0.78	179.00
							1.13	20-Sep-2021	Obstructed at 0.10 mBTOC		
	560816.895	7912598.343	21-Sep-2021	179.7	179.287	0.07	1.13	21-Sep-2021	0.36	0.29	179.34
MS-LF-GW-REF2	560877.464	7912408.379	28-Sep-2020	179.686	179.296	0.39	2.10	15-Sep-2018[2]	-	-	177.97
								28-Sep-2019[3]	-	-	178.60
								13-Sep-2020	1.66	1.27	178.03
						0.38	2.04	20-Sep-2021	1.51	1.13	178.18
MS-LF-GW-REF3	560950.906	7912606.076	3-Sep-2020	187.881	186.981	0.90	1.21	13-Sep-2020	Dry		
							2.04	20-Sep-2021	1.26	1.26	186.62
Hazardous Waste Berm Area											
MS-HWB-GW3	558267.345	7914463.454	19-Sep-2021	174.945	174.379	0.55	2.04	26-Sep-2021	1.34	0.79	173.61
MS-HWB-GW4	558266.621	7914544.92	19-Sep-2021	174.803	174.268	0.54	2.04	26-Sep-2021	1.12	0.58	173.68
MS-HWB-GW5	558156.099	7914588.487	19-Sep-2021	174.378	173.666	0.68	2.04	26-Sep-2021	1.43	0.75	172.95
MS-HWB-GW6	558058.427	7914430.010	19-Sep-2021	173.401	173.020	0.59	2.04	26-Sep-2021	Dry		
MS-HWB-GW7	558195.260	7914542.058	19-Sep-2021	174.943	174.166	0.78	2.04	26-Sep-2021	1.54	0.76	173.40
MS-HWB-GW-REF1	558543.013	7914696.742	19-Sep-2021	173.258	172.690	0.64	2.04	26-Sep-2021	Frozen	Frozen	Frozen at 0.72m
MS-HWB-GW-REF2	558361.680	7914482.197	19-Sep-2021	174.899	174.294	0.59	2.04	26-Sep-2021	1.14	0.55	173.76
MS-HWB-GW-REF3	558314.692	7914417.955	19-Sep-2021	174.468	174.140	0.52	2.04	26-Sep-2021	1.02	0.50	173.45

Notes:

[1] UTM Zone 17W, NAD83

[2] Baffinland Iron Mines Corporation (Baffinland). 2019. 2018 Groundwater Monitoring Program Report. Table 1 - Field Measurements and Elevations
Groundwater elevations shown are for wells MS-LF-GW-REF1-18, MS-LF-GW-REF1-18, MS-LF-GW1-18, MS-LF-GW2-18, and MS-LF-GW3-18

[3] Baffinland Iron Mines Corporation (Baffinland). 2020. Groundwater 2019 Monitoring Program Report. Table 1 - Field Measurements and Elevations - 2019 Groundwater Monitoring Program
Groundwater elevations shown are for wells MS-LF-GW-REF1-19, MS-LF-GW-REF2-19, MS-LF-GW1-19, MS-LF-GW2-19 and MS-LF-GW3-19

masl - metres above sea level

mBTOC - metres below top of casing.

mbg - metres below grade

*Survey data provided by client

Table 2: Groundwater Analytical Results

					Field Measurements						Routine														Nutrients			Carbon	
					Temperature	pH	Turbidity	Electrical Conductivity	Dissolved Oxygen	Dissolved Oxygen	pH	Electrical Conductivity (EC)	Total Suspended Solids (TSS)	Total Dissolved Solids (TDS)	Alkalinity (total as $CaCO_3$)	Alkalinity (Carbonate as $CaCO_3$)	Alkalinity (Bicarbonate as $CaCO_3$)	Alkalinity (Hydroxide) as $CaCO_3$	Bromide	Chloride	Fluoride	Sulphate	Turbidity	Total Phosphorus	Ammonia as N	Total Kjeldahl Nitrogen (TKN)	Nitrate (as NO_3-N)	Dissolved Organic Carbon (DOC)	Total Organic Carbon (TOC)
					°C	pH Units	NTU	µS/cm	mg/L	% saturation	pH Units	µmhos/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	6.5-9	-	-	-	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	100	-	-	0.021-231 [5]	-	-	-	-
		Commercial/Industrial			-	6.5-9	-	-	-	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	100	-	-	0.021-231 [5]	-	-	-	-
CCME - AW [2]		**Freshwater**			-	6.5-9	- [9]	-	Min 5.5 [10]	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	-	-	0.004 [7]	0.021-231 [5]	-	-	-	-
		Marine			-	7.0-8.7	- [9]	-	Min 8.0	-	7.0-8.7	-	-	-	-	-	-	-	-	-	-	-	-	0.004 [7]	-	-	-	-	-
Landfill Area																													
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																									
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	**6.95**	2360	-	-	243	<10	243	<10	0.94	**639**	<0.10	15.1	-	**0.0597**	<0.020	0.59	<0.10	6.9	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	-	-	-	-	-	-	8.03	1940	-	-	-	-	-	-	-	**420**	-	-	-	-	0.062	-	<0.020	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	-	-	-	-	-	-	8.04	1940	-	-	-	-	-	-	-	**419**	-	-	-	-	0.062	-	<0.020	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	-	-	-	-	-	-	**6.94**	1970	-	1660	416	-	-	-	<0.50	35.5	<0.10	896	-	**0.11**	**5.1**	6.18	<0.10	15.2	20.6
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	0.8	6.74	30.2	3130	**5.84**	42.2	**6.90**	3020	103	2660	431	-	-	-	1.4	**233**	*<0.40*	1150	37.6	**0.223**	7.27	9.77	<0.10	34.7	38.1
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	0.0	6.89	25.27	3474	10.55	73.1	**6.99**	3400	6.5	2870	500	-	-	-	<0.10	**340**	<0.020	1190	2.13	**0.109**	9.03	12.5	<0.02	28.6	30.3
Mann-Kendall Trend Analyses																				Decreasing		Increasing							
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	7.37	1120	-	-	291	<10	291	<10	0.54	**126**	<0.020	64.2	-	**0.145**	0.091	1.00	0.402	11.4	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	-	-	-	-	-	-	8.05	1390	-	-	-	-	-	-	-	**290**	-	-	-	-	0.102	-	3.09	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	-	-	-	-	-	-	7.27	1470	-	1120	305	-	-	-	<0.50	59.2	<0.10	620	-	**0.108**	0.019	0.89	<0.10	8.59	9.31
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	1.0	6.88	6.10	2616	8.01	57.6	7.22	2540	22.4	1890	491	-	-	-	0.58	**131**	*<0.20*	937	13.6	**0.157**	4.13	7.2	<0.050	35.2	35.9
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	0.1	6.79	3.74	2446	10.8	74.6	**6.94**	2400	36.5	1910	388	-	-	-	<0.50	85.2	<0.10	1020	2.65	**0.152**	5.26	6.94	4.26	21.4	21.6
Mann-Kendall Trend Analyses																				No Trend		Increasing							
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	8.05	379	-	-	200	<10	200	<10	<0.10	6.33	0.021	10.3	-	**0.147**	<0.020	0.17	0.422	4.4	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	-	-	-	-	-	-	8.21	375	-	-	-	-	-	-	-	15.3	-	-	-	-	**0.147**	-	0.148	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	-	-	-	-	-	-	7.21	2440	-	1350	185	-	-	-	2.62	**730**	<0.10	113	-	**0.0302**	0.88	1.02	2.14	4.86	5.43
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	0.5	7.05	9.45	24.4	12.07	85.7	7.30	2460	34.4	1730	247	-	-	-	<0.50	**531**	*<0.20*	300	57.4	**0.153**	0.0395	0.689	0.586	7.75	7.43
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	-	-	-	-	-	-	7.16	897	26.0	597	240	-	-	-	<0.10	70.4	0.025	165	12.5	**0.0332**	<0.010	0.49	2.73	4.34	5.03
Mann-Kendall Trend Analyses																				No Trend		No Trend							
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	0.9	7.35	23.21	980	8.01	57.1	7.35	976	10.8	675	241	-	-	-	<0.25	50.4	<0.10	227	33.3	**0.107**	0.0272	0.394	0.029	6.84	5.85
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	0.5	7.79	50.12	124.2	13.68	95.0	8.07	257	30.4	168	121	-	-	-	<0.050	1.97	0.047	13.3	47.0	**0.0664**	0.025	0.141	0.312	2.68	2.01
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	-	-	-	-	-	-	8.25	258	-	-	-	-	-	-	-	1.74	-	-	-	-	<0.020	-	0.276	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	-	-	-	-	-	-	**6.82**	1700	-	1350	356	-	-	-	<0.50	32.3	<0.10	675	-	**0.070**	**5.15**	6.22	<0.10	14.2	21.6
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	-	-	-	-	-	-	**6.83**	1700	-	1330	358	-	-	-	<0.50	32.5	<0.10	677	-	0.0702	**5.00**	6.29	<0.10	18.6	27.8
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	0.7	7.37	2.41	352.1	12.12	85.1	7.40	712	8.0	460	209	-	-	-	<0.25	20.4	<0.10	144	3.6	**0.0104**	0.633	1.06	0.309	4.26	3.38
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	-	-	-	-	-	-	7.66	470	15.5	279	261	-	-	-	<0.10	5.16	0.041	21.1	6.67	**0.0315**	0.019	0.24	0.54	2.83	3.65
Mann-Kendall Trend Analyses																				No Trend		CNC							
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	-	-	-	-	-	-	8.25	313	-	-	-	-	-	-	-	4.81	-	-	-	-	<0.020	-	0.115	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	-	-	-	-	-	-	7.86	762	-	519	221	-	-	-	<0.10	13.6	0.031	191	-	**0.0537**	0.018	0.47	0.285	5.24	6.12
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	0.7	7.87	249.8	296.2	10.61	75.2	7.93	557	286	380	171	-	-	-	<0.050	17.2	0.031	100	666	**4.65**	0.0329	0.497	0.884	5.34	6.34
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-6	0.2	7.84	86.18	473.6	11.54	79.4	7.89	485	124	340	194	-	-	-	<0.10	8.13	0.029	80.1	32.2	**0.0456**	0.013	0.33	0.804	4.48	5.88
Mann-Kendall Trend Analyses																				No Trend		CNC							
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	7.94	314	-	-	165	<10	165	<10	<0.50	<2.5	<0.10	1.8	-	**0.0363**	<0.020	0.22	<0.10	7.1	-
Mann-Kendall Trend Analyses																				CNC		CNC							

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Table 2: Groundwater Analytical Results

					Field Measurements						Routine													Nutrients			Carbon	
					Temperature	pH	Turbidity	Electrical Conductivity	Dissolved Oxygen	Dissolved Oxygen	pH	Electrical Conductivity (EC)	Total Suspended Solids (TSS)	Total Dissolved Solids (TDS)	Alkalinity (total as $CaCO_3$)	Alkalinity (Carbonate as $CaCO_3$)	Alkalinity (Bicarbonate as $CaCO_3$)	Alkalinity (Hydroxide) as $CaCO_3$	Bromide	Chloride	Fluoride	Sulphate	Turbidity	Total Phosphorus	Ammonia as N	Total Kjeldahl Nitrogen (TKN)	Nitrate (as NO_3-N)	Dissolved Organic Carbon (DOC)	Total Organic Carbon (TOC)
					°C	pH Units	NTU	µS/cm	mg/L	% saturation	pH Units	µmhos/cm	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	NTU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	6.5-9	-	-	-	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	100	-	-	0.021-231 [5]	-	-	-	-
		Commercial/Industrial			-	6.5-9	-	-	-	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	100	-	-	0.021-231 [5]	-	-	-	-
CCME - AW [2]		**Freshwater**			-	6.5-9	- [9]	-	Min 5.5 [10]	-	6.5-9	-	-	-	-	-	-	-	-	120	0.12	-	-	0.004 [7]	0.021-231 [5]	-	-	-	-
		Marine			-	7.0-8.7	- [9]	-	Min 8.0	-	7.0-8.7	-	-	-	-	-	-	-	-	-	-	-	-	0.004 [7]	-	-	-	-	-
Landfill Area																													
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																									
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	0.9	7.75	128.73	580	11.92	83.8	7.77	597	11.0	366	376	-	-	-	<0.10	6.27	<0.020	9.05	9.01	**0.0305**	0.019	0.54	0.364	13.9	14.7
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	0.0	7.27	23	735	**7.84**	53.8	7.19	745	22.5	445	417	-	-	-	<0.10	24.9	<0.020	10.3	9.40	**0.0494**	<0.010	0.48	2.50	7.93	10.3
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	0.1	7.40	4.79	835	10.48	72.1	7.36	834	3.5	548	308	-	-	-	<0.10	61.0	<0.020	45.2	2.12	**0.0278**	1.35	2.81	12.7	25.0	25.4
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	0.5	7.14	10.92	816	10.64	73.8	7.27	825	9.0	530	384	-	-	-	<0.10	67.0	<0.020	22.2	2.61	**0.0263**	0.189	0.94	0.436	11.7	14.1
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	1.3	7.92	203	649	9.05	64.5	8.11	745	12.0	436	376	-	-	-	<0.10	45.4	0.021	24.1	7.23	**0.0298**	0.414	0.94	0.70	8.37	11.4
Mann-Kendall Trend Analyses																				CNC		CNC							
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	0.3	7.34	23.5	648	7.74	54.1	7.47	638	6.0	364	328	-	-	-	<0.10	28.9	0.029	22.8	1.36	**0.0269**	0.018	0.42	1.10	7.80	9.90
Mann-Kendall Trend Analyses																				CNC		CNC							

Italic - Detection limit greater than guideline
CNC - Could not calculate

Notes:

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[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Italic - Detection limit greater than guideline

CNC - Could not calculate

Table 2: Groundwater Analytical Results

					Dissolved Metals																										
					Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Boron	Cadmium	Calcium	Cesium	Chromium	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Rubidium	Selenium	Silicon	Silver	Sodium
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
		Commercial/Industrial			0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
CCME - AW [2]		**Freshwater**			0.005 - 0.100 [3]	-	0.005	-	-	-	1.5	0.00009	-	-	0.001 [8]	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	0.11-0.50 [6]	0.000026	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
		Marine			-	-	0.0125	-	-	-	-	0.00012	-	-	0.0015 [8]	-	-	-	-	-	-	-	0.000016	-	-	-	-	-	-	-	0.0075	-
Landfill Area																															
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																											
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	<0.0050	0.00015	0.00024	0.216	<0.00010	<0.000050	0.787	0.000041	315	0.000173	**0.00113**	0.00047	0.00172	<0.010	0.000053	0.49	67.3	0.0184	<0.000010	0.000701	**0.0407**	<0.050	5.61	0.0202	0.000104	4.89	<0.000050	34
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	<0.050	<0.0010	<0.0010	0.211	-	-	-	**0.000174**	-	-	*<0.0050*	0.0103	**0.0074**	<0.10	<0.00050	0.672	-	**0.517**	<0.000010	0.00152	**0.085**	-	-	-	<0.00050	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	<0.050	<0.0010	<0.0010	0.207	-	-	-	**0.000148**	-	-	<0.0050	0.0102	0.0073	<0.10	<0.00050	0.707	-	**0.513**	<0.000010	0.0016	**0.0833**	-	-	-	<0.00050	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	<0.050	<0.0010	0.0017	0.186	<0.0010	<0.00050	**4.87**	**0.000251**	362	0.00042	*<0.0050*	0.0538	<0.0020	0.13	**0.00148**	0.059	62.3	**9.99**	<0.0000050	0.00173	**0.303**	<0.50	11.4	0.0581	<0.00050	8.64	*<0.00050*	23.2
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	0.020	<0.0010	0.0016	0.0966	<0.0010	<0.00050	**15.2**	**0.000131**	497	0.00037	**0.0025**	0.0326	**0.0030**	**0.40**	**0.00133**	0.424	106	**7.44**	<0.0000050	0.00095	**0.277**	<0.50	19.3	0.0445	<0.00050	7.34	<0.00010	66.4
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	<0.050	<0.0010	0.0017	0.0654	<0.0010	<0.00050	**6.97**	**0.000194**	596	0.00018	*<0.0050*	0.0189	**0.0131**	0.20	**0.00226**	0.573	81.8	**7.13**	<0.0000050	0.00925	**0.192**	<0.50	27.9	0.0230	<0.00050	6.80	*<0.00050*	72.3
Mann-Kendall Trend Analyses											No Trend	No Trend						Increasing	No Trend			No Trend			No Trend						
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	<0.0050	0.00026	0.00073	0.0782	<0.00010	<0.000050	0.28	**0.000177**	80.8	0.000062	**0.00237**	0.00034	**0.00763**	<0.010	0.000474	0.0089	61.5	0.00472	<0.000010	0.000733	0.0203	<0.050	5.09	0.0185	0.000175	5.46	<0.000050	50.5
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	<0.050	<0.0010	<0.0010	0.0892	-	-	-	0.000079	-	-	*<0.0050*	<0.0010	**0.0054**	<0.10	<0.00050	<0.010	-	<0.0050	<0.000010	0.00074	0.023	-	-	-	<0.00050	-	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	<0.050	<0.0010	<0.0010	0.121	<0.0010	<0.00050	**3.66**	**0.000142**	150	<0.00010	*<0.0050*	0.0011	**0.0055**	<0.10	<0.00050	<0.010	126	0.194	<0.0000050	0.00065	**0.0474**	<0.50	3.19	0.0137	<0.00050	5.74	*<0.00050*	13.6
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	0.0123	0.00168	0.00206	0.0925	<0.00050	<0.00025	**7.43**	**0.000401**	315	0.000057	**0.00122**	0.0623	**0.0452**	**0.729**	<0.00025	0.0709	152	**9.15**	**0.0000165**	0.00407	**0.271**	<0.25	24.7	0.0311	<0.00025	8.59	**0.000318**	75.0
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	<0.050	<0.0010	<0.0010	0.0365	<0.0010	<0.00050	**5.57**	**0.000220**	316	<0.00010	*<0.0050*	0.0104	**0.0128**	<0.10	<0.00050	0.141	100	**1.91**	<0.0000050	0.00294	**0.141**	<0.50	26.3	0.0220	<0.00050	5.04	*<0.00050*	80.7
Mann-Kendall Trend Analyses											No Trend	No Trend						No Trend	No Trend			No Trend			Increasing						
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	<0.0050	<0.00010	0.00018	0.0183	<0.00010	<0.000050	<0.010	0.000011	31.3	0.000019	**0.00153**	0.0001	0.00176	0.014	<0.000050	0.0017	26.4	0.00346	<0.000010	0.000505	0.0122	<0.050	1.51	0.00524	0.000051	5.06	<0.000050	5.48
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	0.0056	<0.00010	0.00016	0.0229	-	-	-	<0.000010	-	-	0.00064	<0.00010	0.00192	0.014	<0.000050	0.0013	-	0.00145	<0.000010	0.00068	0.0122	-	-	-	<0.000050	-	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	<0.050	<0.0010	<0.0010	0.120	<0.0010	<0.00050	**2.69**	0.000083	192	0.00014	*<0.0050*	<0.0010	**0.0027**	<0.10	<0.00050	1.23	148	0.029	<0.0000050	0.00066	**0.0268**	<0.50	8.78	0.0375	<0.00050	5.57	*<0.00050*	42.4
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	<0.0020	<0.00020	0.00035	0.0888	<0.00020	<0.00010	**3.75**	**0.000193**	231	0.000038	0.00039	0.00101	**0.00430**	<0.020	<0.00010	0.0164	174	0.316	<0.0000050	0.00053	**0.0657**	<0.10	4.49	0.0186	<0.00010	6.37	<0.000020	26.8
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	<0.050	<0.0010	<0.0010	0.0488	<0.0010	<0.00050	1.34	<0.000050	78.3	<0.00010	*<0.0050*	<0.0010	**0.00280**	<0.10	<0.00050	0.019	59.8	<0.0050	<0.0000050	0.00058	0.0203	<0.50	2.61	0.0115	<0.00050	5.18	*<0.00050*	14.5
Mann-Kendall Trend Analyses											No Trend	No Trend						No Trend	No Trend			No Trend			No Trend						
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	0.0096	<0.00020	<0.00020	0.0267	<0.00020	<0.00010	**1.62**	0.000024	59.7	<0.000020	0.00022	<0.00020	0.00174	<0.020	<0.00010	0.0031	46.1	0.0911	<0.0000050	<0.00010	0.0186	<0.10	1.61	0.00516	<0.00010	3.71	<0.000020	7.67
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC						
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	0.0020	<0.00010	0.00019	0.0158	<0.00010	<0.000050	0.017	<0.0000050	21.8	0.000013	0.00058	<0.00010	0.00097	<0.010	<0.000050	0.0020	17.8	0.00045	<0.0000050	0.00117	0.00161	<0.050	1.70	0.00289	0.000131	2.04	<0.000010	1.24
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC						
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	0.0072	<0.00010	<0.00010	0.0107	-	-	-	<0.000010	-	-	<0.00050	<0.00010	0.00175	<0.010	<0.000050	0.0012	-	0.00091	<0.000010	0.000375	0.00083	-	-	-	0.000051	-	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	<0.050	<0.0010	<0.0010	0.230	<0.0010	<0.00050	**3.67**	**0.000505**	293	<0.00010	*<0.0050*	0.0284	**0.0121**	<0.10	0.00072	0.030	64.0	**4.78**	0.0000076	0.00057	**0.0385**	<0.50	8.46	0.0332	<0.00050	4.37	*<0.00050*	20.7
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	<0.050	<0.0010	<0.0010	0.225	<0.0010	<0.00050	**3.46**	**0.000452**	283	<0.00010	*<0.0050*	0.0284	0.0118	<0.10	0.00071	0.026	62.6	**4.63**	0.0000096	0.00052	**0.0386**	<0.50	8.39	0.0313	<0.00050	4.27	*<0.00050*	20.2
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	0.0023	<0.00010	0.00016	0.0445	<0.00010	<0.000050	0.581	0.0000281	88.2	<0.000010	0.00014	0.00116	**0.00221**	<0.010	<0.000050	0.0070	28.1	**0.335**	<0.0000050	0.000841	0.00798	<0.050	3.79	0.00727	0.000144	2.20	<0.000010	13.8
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	<0.0050	<0.00010	<0.00010	0.0204	<0.00010	<0.000050	0.07	<0.0000050	47.3	<0.000010	<0.00050	<0.00010	0.00159	<0.010	<0.000050	0.003	25.7	0.00206	<0.0000050	0.000868	0.00195	<0.050	1.81	0.0025	0.000087	1.89	<0.000050	12.7
Mann-Kendall Trend Analyses											No Trend	No Trend						No Trend	No Trend			No Trend			No Trend						
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	<0.0050	<0.00010	0.00029	0.0255	-	-	-	<0.000010	-	-	**0.00104**	<0.00010	**0.004**	<0.010	<0.000050	0.0012	-	0.0011	<0.000010	0.000234	0.00603	-	-	-	0.000056	-	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	*<0.050*	<0.0010	<0.0010	0.0602	<0.0010	<0.00050	1.39	<0.000050	65.8	<0.00010	*<0.0050*	<0.0010	**0.0039**	<0.10	<0.00050	<0.010	61.0	<0.0050	<0.0000050	<0.00050	0.0106	<0.50	2.07	0.0071	<0.00050	5.15	*<0.00050*	4.47
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	0.0016	<0.00010	0.00022	0.0395	<0.00010	<0.000050	0.858	0.0000101	48.7	<0.000010	0.00075	<0.00010	**0.00316**	<0.010	<0.000050	0.0022	39.6	0.00075	<0.0000050	0.000391	0.0062	<0.050	1.98	0.00746	0.000113	4.91	<0.000010	5.45
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	<0.050	<0.0010	<0.0010	0.0350	<0.0010	<0.00050	0.50	<0.000050	39.6	<0.00010	*<0.0050*	<0.0010	**0.00390**	<0.10	<0.00050	<0.010	35.5	<0.0050	<0.0000050	<0.00050	0.0057	<0.50	1.51	0.0059	<0.00050	4.67	*<0.00050*	4.35
Mann-Kendall Trend Analyses											No Trend	No Trend						No Trend	No Trend			No Trend			No Trend						
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	***0.0062***	<0.00010	0.00012	0.0116	<0.00010	<0.000050	<0.010	<0.000010	34.3	0.000010	<0.00050	<0.00010	**0.00248**	<0.010	<0.000050	0.0015	20.2	0.00066	<0.000010	0.000124	0.00254	<0.050	0.823	0.00248	<0.000050	1.86	<0.000050	0.69
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC						

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Table 2: Groundwater Analytical Results

					Dissolved Metals																										
					Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Boron	Cadmium	Calcium	Cesium	Chromium	Cobalt	Copper	Iron	Lead	Lithium	Magnesium	Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Rubidium	Selenium	Silicon	Silver	Sodium
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
		Commercial/Industrial			0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
CCME - AW [2]		**Freshwater**			0.005 - 0.100 [3]	-	0.005	-	-	-	1.5	0.00009	-	-	0.001 [8]	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-	0.11-0.50 [6]	0.000026	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-
		Marine			-	-	0.0125	-	-	-	-	0.00012	-	-	0.0015 [8]	-	-	-	-	-	-	-	0.000016	-	-	-	-	-	-	-	0.0075	-
Landfill Area																															
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																											
Hazardous Waste Berm Area																															
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	0.0083	<0.00010	0.0049	0.0347	<0.00010	<0.000050	<0.010	0.0000057	42.4	0.000015	0.00085	0.00058	**0.00468**	0.014	<0.000050	0.0024	54.3	0.0625	<0.0000050	0.000329	0.0209	<0.050	1.65	0.00556	0.000144	5.96	<0.000050	2.01
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	<0.0050	<0.00010	0.00024	0.0478	<0.00010	<0.000050	0.012	0.0000107	68.8	<0.000010	0.00098	<0.00010	**0.00349**	<0.010	<0.000050	0.0058	55.3	0.00303	<0.0000050	0.000247	0.0112	<0.050	1.52	0.00477	0.000091	6.25	<0.000050	2.77
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	0.0065	<0.00010	0.00037	0.0788	<0.00010	<0.000050	0.026	0.0000240	50.4	0.000020	**0.00145**	0.00106	**0.00551**	0.013	0.000177	0.0051	68.6	0.13	<0.0000050	0.000427	0.0237	<0.050	2.93	0.00486	0.000336	5.14	<0.000050	3.85
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	0.010	<0.00010	0.00034	0.0734	<0.00010	<0.000050	0.024	0.0000212	65.5	0.000084	**0.00152**	0.00074	**0.00404**	0.016	<0.000050	0.0219	59.1	0.169	<0.0000050	0.000445	**0.0319**	<0.050	3.49	0.0184	0.000096	8.21	<0.000050	4.48
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	0.0062	<0.00010	0.00046	0.0509	<0.00010	<0.000050	0.035	0.0000219	52.5	0.000018	0.00069	0.00330	**0.00373**	0.030	0.000052	0.0039	55.9	**0.568**	<0.0000050	0.00120	**0.0314**	<0.050	3.34	0.00809	0.000234	6.94	<0.000050	17.2
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	<0.0050	<0.00010	0.00076	0.0213	<0.00010	<0.000050	0.075	0.0000112	45.4	<0.000010	<0.00050	0.00015	**0.00335**	<0.010	<0.000050	0.0053	47.9	0.0317	<0.0000050	0.000641	0.00773	<0.050	4.00	0.00401	0.000166	5.56	<0.000050	10.2
Mann-Kendall Trend Analyses											CNC	CNC						CNC	CNC			CNC			CNC							

Italic - Detection limit greater than guideline
CNC - Could not calculate

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

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[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

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Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Italic - Detection limit greater than guideline

CNC - Could not calculate

Table 2: Groundwater Analytical Results

					Dissolved Metals												Total Metals																		
					Strontium	Sulphur	Tellurium	Thallium	Thorium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium	Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Boron	Cadmium	Calcium	Cesium	Chromium	Cobalt	Copper	Iron	Lead	Lithium	Magnesium
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
		Commercial/Industrial			-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
CCME - AW [2]		**Freshwater**			-	-	-	0.0008	-	-	-	-	0.015	-	0.007-0.042 [11]	-	0.005 - 0.100 [3]	-	0.005	-	-	-	1.5	0.00009	-	-	0.001 [8]	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
		Marine			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0125	-	-	-	-	0.00012	-	-	0.0015 [8]	-	-	-	-	-	-
Landfill Area																																			
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																															
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	0.24	6.23	<0.0002	0.000104	<0.00010	<0.00010	<0.00030	<0.00010	0.00625	<0.00050	0.0024	<0.00030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	0.224	-	-	0.00013	-	<0.0010	<0.0030	-	0.0123	<0.0050	<0.010	-	**1.05**	<0.0010	<0.0010	0.243	-	-	-	**0.000164**	-	-	**0.0098**	0.0131	**0.015**	**1.86**	**0.00249**	0.827	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	0.227	-	-	0.00012	-	<0.0010	<0.0030	-	0.0119	<0.0050	**0.011**	-	**1.46**	<0.0010	0.0011	0.21	-	-	-	0.000131	-	-	0.0137	0.0122	0.014	2.79	0.00296	0.736	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	0.626	272	<0.0020	0.00028	<0.0010	<0.0010	<0.0030	<0.0010	**0.0296**	<0.0050	0.017	<0.0020	**18**	<0.0010	**0.0112**	0.387	<0.0010	0.00116	**4.62**	**0.000699**	343	0.00426	**0.318**	0.0901	**0.049**	**40**	**0.0442**	0.082	107
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	1.05	390	<0.0020	0.00028	<0.0010	<0.0010	<0.0030	<0.0010	**0.0483**	<0.0050	<0.010	0.0026	**3.17**	0.00088	0.0027	0.122	<0.00020	0.00012	**16.6**	**0.000483**	508	0.000852	**0.0499**	0.0393	**0.0128**	**5.82**	**0.00834**	0.403	112
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	1.57	449	<0.0020	0.00028	<0.0010	<0.0010	<0.0030	<0.0010	**0.0716**	<0.0050	<0.010	<0.0020	<0.050	<0.0010	0.0017	0.0657	<0.0010	<0.00050	**6.92**	**0.000259**	577	0.00019	*<0.0050*	0.0179	**0.0148**	0.220	**0.00242**	0.548	77.8
Mann-Kendall Trend Analyses					Increasing																														
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	0.0453	28.9	<0.0002	0.000096	<0.00010	0.00013	<0.00030	<0.00010	0.0117	<0.00050	0.0024	0.00066	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	0.067	-	-	<0.00010	-	<0.0010	<0.0030	-	0.0122	<0.0050	<0.010	-	**0.337**	<0.0010	0.001	0.0993	-	-	-	**0.000092**	-	-	*<0.0050*	0.0013	*<0.010*	**0.87**	**0.00158**	0.016	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	0.084	175	<0.0020	<0.00010	<0.0010	<0.0010	<0.0030	<0.0010	**0.0159**	<0.0050	<0.010	<0.0020	**1.67**	<0.0010	0.0011	0.139	<0.0010	<0.00050	**3.59**	**0.000266**	147	0.00035	**0.0102**	0.0035	**0.020**	**3.12**	**0.00732**	<0.010	117
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	0.407	311	<0.0010	0.000232	<0.00050	<0.00050	<0.0015	<0.00050	**0.0191**	<0.0025	<0.0050	0.0025	**0.105**	0.00177	0.00241	0.101	<0.00020	<0.00010	**7.71**	**0.000401**	309	0.000088	**0.00224**	0.0639	**0.0902**	**0.925**	0.00073	0.0668	150
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	0.476	349	<0.0020	0.00017	<0.0010	<0.0010	<0.0030	<0.0010	**0.0520**	<0.0050	<0.010	<0.0020	**2.77**	<0.0010	0.0017	0.0601	<0.0010	<0.00050	**5.88**	**0.000302**	318	0.00056	**0.0295**	0.0158	**0.0220**	**5.66**	**0.00301**	0.155	112
Mann-Kendall Trend Analyses					Increasing																														
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	0.0162	3.41	<0.0002	0.000026	<0.00010	<0.00010	0.00041	<0.00010	0.000848	<0.00050	0.0036	<0.00030	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	0.0169	-	-	0.000021	-	<0.00010	0.00045	-	0.000614	<0.00050	<0.0010	-	**7.36**	0.00017	0.00451	0.0722	-	-	-	**0.000113**	-	-	**0.0734**	0.0127	**0.0276**	**20.4**	**0.0235**	0.0138	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	0.126	32	<0.0020	0.00019	<0.0010	<0.0010	<0.0030	<0.0010	0.010	<0.0050	<0.010	<0.0020	**4.5**	<0.0010	0.0041	0.167	<0.0010	<0.00050	**2.64**	**0.000175**	197	0.00114	**0.0573**	0.0112	**0.023**	**11.4**	**0.0142**	1.18	154
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	0.123	108	<0.00040	0.000118	<0.00020	<0.00020	<0.00060	<0.00020	**0.0214**	<0.0010	<0.0020	0.00046	**2.18**	0.00025	0.00114	0.104	<0.00020	<0.00010	**4.07**	**0.000239**	222	0.000508	**0.0136**	0.00357	**0.0094**	**3.71**	**0.00708**	0.0184	163
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	0.0420	57.8	<0.0020	<0.00010	<0.0010	<0.0010	<0.0030	<0.0010	0.00786	<0.0050	<0.010	<0.0020	**0.314**	<0.0010	<0.0010	0.0542	<0.0010	<0.00050	1.43	<0.000050	80.8	0.000130	*<0.0050*	<0.0010	*<0.0050*	**0.74**	**0.00108**	0.021	62.7
Mann-Kendall Trend Analyses					No Trend																														
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	0.030	48.1	<0.00040	0.000023	<0.00020	<0.00020	0.00073	<0.00020	0.0049	<0.0010	<0.0020	<0.00040	**0.277**	<0.00010	0.00034	0.0427	<0.00010	<0.000050	**2.56**	0.000049	83.6	0.000051	0.0010	0.00045	**0.00549**	**0.305**	0.000267	0.0045	66.2
Mann-Kendall Trend Analyses					CNC																														
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	0.0161	4.62	<0.00020	<0.000010	<0.00010	<0.00010	<0.00030	<0.00010	0.000737	<0.00050	<0.0010	<0.00020	**1.55**	<0.00010	0.00051	0.0268	<0.00010	0.000062	0.020	0.0000084	22.8	0.000518	**0.00655**	0.00219	**0.00475**	**1.67**	**0.00296**	0.0043	19.4
Mann-Kendall Trend Analyses					CNC																														
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	0.0152	-	-	<0.000010	-	<0.00010	0.00038	-	0.000753	<0.00050	<0.0010	-	**1.67**	<0.00010	0.00062	0.0222	-	-	-	0.000017	-	-	**0.00604**	0.00151	**0.0068**	**2.32**	**0.00322**	0.0041	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	0.298	227	<0.0020	0.00015	<0.0010	<0.0010	<0.0030	<0.0010	0.00969	<0.0050	<0.010	<0.0020	0.087	<0.0010	<0.0010	0.236	<0.0010	<0.00050	**3.52**	**0.000446**	270	<0.00010	*<0.0050*	0.0283	**0.016**	0.14	0.00098	0.024	55.3
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	0.289	217	<0.0020	0.00015	<0.0010	<0.0010	<0.0030	<0.0010	0.00973	<0.0050	*<0.010*	<0.0020	0.085	<0.0010	<0.0010	0.243	<0.0010	<0.00050	**3.53**	0.000469	267	<0.00010	*<0.0050*	0.0286	**0.015**	0.12	0.00093	0.023	55.9
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	0.137	49.1	<0.00020	0.000039	<0.00010	<0.00010	<0.00030	<0.00010	0.00805	<0.00050	<0.0010	0.00038	0.0219	0.00010	0.00020	0.0489	<0.00010	<0.000050	0.627	0.0000319	87.0	0.000013	0.00025	0.00126	**0.00271**	0.034	0.000077	0.0067	28.2
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	0.0452	7.06	<0.00020	<0.000010	<0.00010	<0.00010	<0.00030	<0.00010	0.00585	<0.00050	<0.0010	0.00035	**0.184**	<0.00010	0.00017	0.0212	<0.00010	<0.000050	0.071	<0.0000050	46.5	0.000034	0.00092	0.00023	**0.00232**	0.238	0.000723	0.0029	25.1
Mann-Kendall Trend Analyses					No Trend																														
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	0.016	-	-	0.000015	-	<0.00010	<0.00030	-	0.000349	<0.00050	<0.0010	-	**0.15**	<0.00010	0.00035	0.0251	-	-	-	<0.000010	-	-	**0.00174**	0.00018	**0.0045**	0.178	0.00028	0.0015	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	0.037	64.9	<0.0020	<0.00010	<0.0010	<0.0010	<0.0030	<0.0010	0.00493	<0.0050	<0.010	<0.0020	**0.212**	<0.0010	<0.0010	0.0739	<0.0010	<0.00050	1.5	<0.000050	74.2	<0.00010	*<0.0050*	<0.0010	*<0.010*	**0.37**	0.00066	<0.010	63.3
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	0.0274	33.6	<0.00020	0.000015	<0.00010	<0.00010	<0.00030	<0.00010	0.00281	<0.00050	<0.0010	0.00022	**16.3**	<0.00010	**0.00518**	0.208	0.00132	0.000176	0.972	**0.000998**	128	0.00206	**0.113**	0.030	**0.158**	**24.9**	**0.0383**	0.0224	87.8
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	0.0220	28.2	<0.0020	<0.00010	<0.0010	<0.0010	<0.0030	<0.0010	0.00227	<0.0050	<0.010	<0.0020	**0.199**	<0.0010	<0.0010	0.0369	<0.0010	<0.00050	0.52	<0.000050	42.5	<0.00010	*<0.0050*	<0.0010	*<0.0050*	**0.340**	<0.00050	<0.010	37.0
Mann-Kendall Trend Analyses					No Trend																														
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	0.0166	0.78	<0.0002	0.000014	<0.00010	<0.00010	<0.00030	<0.00010	0.00064	<0.00050	<0.0010	0.00068	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses					CNC																														

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

TETRA TECH

Table 2: Groundwater Analytical Results

					Dissolved Metals												Total Metals																					
					Strontium	Sulphur	Tellurium	Thallium	Thorium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium	Aluminum	Antimony	Arsenic	Barium	Beryllium	Bismuth	Boron	Cadmium	Calcium	Cesium	Chromium	Cobalt	Copper	Iron	Lead	Lithium	Magnesium
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
		Commercial/Industrial			-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	0.005 - 0.100 [3]	2	0.005	0.5	0.0053	-	1.5	0.00009	-	-	0.0089	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
CCME - AW [2]		**Freshwater**			-	-	-	0.0008	-	-	-	-	0.015	-	0.007-0.042 [11]	-	0.005 - 0.100 [3]	-	0.005	-	-	-	1.5	0.00009	-	-	0.001 [8]	-	0.002 - 0.004 [4]	0.3	0.001 - 0.007 [4]	-	-
		Marine			-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0125	-	-	-	-	0.00012	-	-	0.0015 [8]	-	-	-	-	-	-
Landfill Area																																					
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																																	
Hazardous Waste Berm Area																																					
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	0.0228	3.53	<0.00020	0.000022	<0.00010	<0.00010	0.00041	<0.00010	0.00134	<0.00050	<0.0010	0.00111	**0.142**	<0.00010	0.00440	0.0355	<0.00010	<0.000050	<0.010	0.0000138	42.5	0.000046	**0.00196**	0.00074	**0.00541**	0.273	0.000404	0.0028	55.1
Mann-Kendall Trend Analyses					CNC																																
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	0.298	4.22	<0.00020	0.000015	<0.00010	<0.00010	<0.00030	<0.00010	0.00276	<0.00050	<0.0010	0.00111	**0.252**	<0.00010	0.00048	0.0499	<0.00010	<0.000050	0.012	0.0000178	65.7	0.000048	**0.00329**	0.00041	**0.00459**	**0.539**	0.000845	0.0066	55.3
Mann-Kendall Trend Analyses					CNC																																
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	0.151	16.5	<0.00020	0.000014	<0.00010	<0.00010	0.00035	<0.00010	0.00364	<0.00050	<0.0010	0.00079	0.0582	<0.00010	0.00041	0.0787	<0.00010	<0.000050	0.028	0.0000228	52.4	0.000027	**0.00245**	0.00110	**0.00555**	0.122	0.000507	0.0055	66.5
Mann-Kendall Trend Analyses					CNC																																
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	0.506	7.92	<0.00020	0.000064	<0.00010	<0.00010	<0.00030	<0.00010	0.00202	<0.00050	<0.0010	0.00061	**0.202**	<0.00010	0.00043	0.0790	<0.00010	<0.000050	0.025	0.0000251	66.7	0.000113	**0.00408**	0.00108	**0.00478**	**0.403**	0.000418	0.0246	60.3
Mann-Kendall Trend Analyses					CNC																																
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	0.0334	8.90	<0.00020	0.000029	<0.00010	<0.00010	<0.00030	<0.00010	0.00506	<0.00050	0.0017	0.00097	**0.257**	<0.00010	0.00056	0.0532	<0.00010	<0.000050	0.032	0.0000207	49.5	0.000085	**0.00261**	0.00338	**0.00496**	**0.543**	0.000834	0.0044	55.7
Mann-Kendall Trend Analyses					CNC																																
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	0.0787	8.09	<0.00020	0.000013	<0.00010	<0.00010	<0.00030	<0.00010	0.00331	<0.00050	<0.0010	0.00053	**0.396**	<0.00010	0.00094	0.0239	<0.00010	<0.000050	0.080	0.0000115	47.0	0.000082	**0.00491**	0.00082	**0.00495**	**0.932**	0.000956	0.0061	49.8
Mann-Kendall Trend Analyses					CNC																																

Italic - Detection limit greater than guideline
CNC - Could not calculate

Notes:

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[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

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[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

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Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Italic - Detection limit greater than guideline

CNC - Could not calculate

Table 2: Groundwater Analytical Results

					Total Metals																							Oil & Grease
					Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Rubidium	Selenium	Silicon	Silver	Sodium	Strontium	Sulphur	Tellurium	Thallium	Thorium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium	Oil and Grease
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	-
		Commercial/Industrial			-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	-
CCME - AW [2]		**Freshwater**			0.11-0.50 [6]	0.000026	0.073	0.025 - 0.15 [4]	0.004 [7]	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	-	-	0.015	-	0.007-0.042 [11]	-	-
		Marine			-	0.000016	-	-	0.004 [7]	-	-	-	-	0.0075	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																												
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																								
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6.1
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	**0.629**	-	0.00184	**0.113**	-	-	-	<0.00050	-	-	-	0.286	-	-	0.00015	-	<0.0010	0.0719	-	0.0138	<0.0050	*<0.030*	-	<2.0
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	**0.556**	-	0.00168	0.107	-	-	-	<0.00050	-	-	-	0.244	-	-	0.00013	-	<0.0010	0.104	-	0.0122	<0.0050	*<0.030*	-	2.4
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	**9.52**	<0.0000050	0.0033	**0.706**	*<0.50*	15.1	0.089	0.00051	49.4	*<0.00050*	22.1	0.618	257	<0.0020	0.00063	0.0112	<0.0010	1.1	<0.0010	**0.0323**	0.0481	**0.067**	0.0114	<2.0
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	**7.59**	*<0.000050*	0.0014	**0.332**	**0.20**	19.8	0.0479	0.00032	15.7	0.000093	69.2	1.06	435	<0.00040	0.00039	0.00119	0.00046	0.233	<0.00020	**0.0552**	0.0104	0.0195	0.00396	<5.0
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	**6.68**	<0.0000050	0.00890	**0.185**	*<0.50*	26.6	0.0222	<0.00050	6.60	*<0.00050*	67.8	1.54	393	<0.0020	0.00028	<0.0010	<0.0010	<0.0030	<0.0010	**0.0668**	<0.0050	*<0.030*	<0.0020	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.0
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	0.0247	-	0.00083	**0.0318**	-	-	-	<0.00050	-	-	-	0.08	-	-	0.00012	-	<0.0010	0.0213	-	0.0138	<0.0050	*<0.030*	-	2.3
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	0.305	<0.0000050	0.00125	**0.066**	*<0.50*	4.64	0.0191	<0.00050	9	*<0.00050*	13.4	0.089	173	<0.0020	0.00012	<0.0010	<0.0010	0.101	<0.0010	**0.0171**	<0.0050	**0.139**	0.0022	<2.0
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	**9.12**	**0.000025**	0.00452	**0.269**	**0.18**	24.4	0.0308	0.00026	9.25	**0.000753**	77.6	0.398	338	<0.00040	0.000274	<0.00020	<0.00020	0.00655	<0.00020	**0.0220**	0.0018	<0.0060	0.00267	<5.0
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	**2.15**	<0.0000050	0.00344	**0.182**	*<0.50*	29.1	0.0270	<0.00050	10.9	*<0.00050*	84.2	0.505	335	<0.0020	0.00021	<0.0010	<0.0010	0.220	<0.0010	**0.0530**	0.0092	*<0.030*	0.0022	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.7
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	**0.337**	-	0.000514	**0.132**	-	-	-	0.000096	-	-	-	0.0237	-	-	0.000256	-	0.00044	0.455	-	0.00115	0.0276	**0.0266**	-	6.5
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	0.363	<0.0000050	0.00085	**0.125**	*<0.50*	10.8	0.048	<0.00050	16.7	*<0.00050*	40.6	0.134	32.6	<0.0020	0.00032	0.0036	<0.0010	0.235	<0.0010	0.011	0.014	*<0.030*	0.0021	<2.0
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	0.391	<0.0000050	0.00074	**0.0839**	**0.16**	5.45	0.0258	0.00018	11.0	0.000040	26.1	0.122	108	<0.00040	0.000190	0.00105	<0.00020	0.160	<0.00020	**0.0224**	0.0066	0.0110	0.00224	<5.0
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	0.0172	<0.0000050	0.00058	0.0239	*<0.50*	2.84	0.0124	<0.00050	6.10	*<0.00050*	15.0	0.0420	50.9	<0.0020	<0.00010	<0.0010	<0.0010	0.0191	<0.0010	0.00801	<0.0050	*<0.030*	<0.0020	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	0.145	<0.0000050	0.000164	**0.0292**	**0.091**	2.62	0.00894	0.000081	6.41	<0.000010	11.7	0.0462	81.9	<0.00020	0.000054	0.00023	<0.00010	0.0124	<0.00010	0.00825	0.00111	<0.0030	0.00079	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	0.047	*<0.000050*	0.00116	0.0162	**0.060**	2.34	0.00802	0.000121	5.38	0.000028	1.35	0.0196	4.36	<0.00020	0.000053	0.00166	<0.00010	0.0821	<0.00010	0.000973	0.00332	0.0060	0.00124	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	0.0736	-	0.000353	0.00704	-	-	-	0.000053	-	-	-	0.0196	-	-	0.000064	-	0.00026	0.0913	-	0.000953	0.00449	0.0083	-	<2.0
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	**4.29**	0.0000108	0.00069	**0.0389**	*<0.50*	8.96	0.0332	<0.00050	4.4	*<0.00050*	19.3	0.292	212	<0.0020	0.00015	<0.0010	<0.0010	0.0051	<0.0010	0.0102	<0.0050	*<0.030*	<0.0020	<2.0
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	**4.31**	0.0000124	0.00061	**0.039**	<0.50	9.15	0.0335	<0.00050	4.4	*<0.00050*	19.4	0.291	215	<0.0020	0.00017	<0.0010	<0.0010	0.0049	<0.0010	0.0102	<0.0050	*<0.030*	<0.0020	<2.0
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	0.358	<0.0000050	0.000896	0.00837	*<0.050*	3.86	0.00753	0.000149	2.36	<0.000010	14.0	0.140	53.3	<0.00020	0.000050	<0.00010	<0.00010	0.00154	0.00026	0.00914	0.00066	<0.0030	0.00041	<5.0
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	0.00818	<0.0000050	0.000839	0.00414	*<0.050*	1.78	0.00304	0.000088	2.20	<0.000050	12.6	0.0460	7.15	<0.00020	0.000017	0.00020	<0.00010	0.0108	<0.00010	0.00618	0.00062	0.0117	0.00055	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	0.00613	-	0.000252	0.00688	-	-	-	<0.000050	-	-	-	0.0163	-	-	0.000022	-	0.00016	0.00684	-	0.000367	0.00054	<0.0030	-	<2.0
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	0.0108	<0.0000050	<0.00050	0.0151	*<0.50*	2.58	0.0089	<0.00050	6.4	*<0.00050*	5.33	0.043	68.8	<0.0020	<0.00010	<0.0010	<0.0010	0.0141	<0.0010	0.00591	<0.0050	*<0.030*	<0.0020	<2.0
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	**0.890**	*<0.00050*	0.000259	**0.245**	**2.97**	6.33	0.0822	0.000149	34.7	0.000117	5.68	0.087	35.7	<0.00020	0.000517	0.00563	0.00056	0.805	<0.00010	0.00582	0.0492	**0.132**	0.0055	<5.0
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	0.0065	<0.0000050	<0.00050	0.0077	*<0.50*	1.67	0.00790	<0.00050	5.40	*<0.00050*	4.50	0.0230	23.6	<0.0020	<0.00010	<0.0010	<0.0010	0.0122	<0.0010	0.00241	<0.0050	*<0.030*	<0.0020	<5.0
Mann-Kendall Trend Analyses																												
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	<2.0
Mann-Kendall Trend Analyses																												

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

TETRA TECH

Table 2: Groundwater Analytical Results

					Total Metals																								Oil & Grease
					Manganese	Mercury	Molybdenum	Nickel	Phosphorus	Potassium	Rubidium	Selenium	Silicon	Silver	Sodium	Strontium	Sulphur	Tellurium	Thallium	Thorium	Tin	Titanium	Tungsten	Uranium	Vanadium	Zinc	Zirconium	Oil and Grease
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	-
		Commercial/Industrial			-	0.000016	0.073	0.025 - 0.15 [4]	-	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	0.1	-	0.015	-	0.01	-	-
CCME - AW [2]		**Freshwater**			0.11-0.50 [6]	0.000026	0.073	0.025 - 0.15 [4]	0.004 [7]	-	-	0.001	-	0.00025	-	-	-	-	0.0008	-	-	-	-	0.015	-	0.007-0.042 [11]	-	-
		Marine			-	0.000016	-	-	0.004 [7]	-	-	-	-	0.0075	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																													
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																									
Italic - Detection limit greater than guideline																													
CNC - Could not calculate																													
Hazardous Waste Berm Area																													
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	0.0672	<0.0000050	0.000345	0.0227	*<0.050*	1.69	0.00565	0.000105	6.15	0.000061	2.09	0.0234	3.16	<0.00020	0.000026	0.00058	<0.00010	0.00502	<0.00010	0.00136	0.00057	<0.0030	0.00123	<5.0
Mann-Kendall Trend Analyses																													
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	0.011	<0.0000050	0.000278	0.0137	*<0.050*	1.61	0.00545	0.000081	6.91	<0.000050	2.83	0.283	3.71	<0.00020	0.000025	0.00032	<0.00010	0.0152	<0.00010	0.00269	0.00108	<0.0030	0.00147	<2.0
Mann-Kendall Trend Analyses																													
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	0.125	<0.0000050	0.000489	0.0244	*<0.050*	2.92	0.00501	0.000272	5.35	<0.000050	3.91	0.153	14.4	<0.00020	0.000017	<0.00010	0.00034	0.00225	<0.00010	0.00357	<0.00050	<0.0030	0.00079	<2.0
Mann-Kendall Trend Analyses																													
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	0.177	<0.0000050	0.000477	**0.0365**	*<0.050*	3.59	0.0188	0.000074	8.92	0.000061	4.69	0.527	7.59	<0.00020	0.000068	0.00018	<0.00010	0.00817	<0.00010	0.00198	0.00083	<0.0030	0.00072	<2.0
Mann-Kendall Trend Analyses																													
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	**0.553**	<0.0000050	0.00113	**0.0319**	*<0.050*	3.19	0.00836	0.000098	7.92	<0.000050	16.5	0.0335	7.87	<0.00020	0.000032	0.00017	0.00023	0.0148	<0.00010	0.00476	0.00103	<0.0030	0.00098	<2.0
Mann-Kendall Trend Analyses																													
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	0.0476	<0.0000050	0.000660	0.0130	*<0.050*	4.06	0.00496	0.000067	6.76	<0.000050	10.7	0.0820	7.43	<0.00020	0.000024	0.00037	<0.00010	0.0281	<0.00010	0.00340	0.00143	0.0056	0.00092	<2.0
Mann-Kendall Trend Analyses																													

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

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[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Italic - Detection limit greater than guideline

CNC - Could not calculate

Table 2: Groundwater Analytical Results

					Hydrocarbons																Glycols			
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylenes (m & p)	Xylenes Total	Styrene	F1 (C_6-C_{10})	F1 (C_6-C_{10}) - BTEX	F2 (C_{10}-C_{16})	F2-NAPHTHALENE	F3 (C_{16}-C_{34})	F3-PAH	F4 (C_{34}-C_{50})	Chrom. to baseline at nC_{50}	Total Hydrocarbons (C_6-C_{50})	Diethylene glycol	Ethylene glycol	Propylene glycol	Triethylene Glycol
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	N/A	N/A	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]			**Residential/Parkland**		0.14	0.083	11	-	-	3.9	0.072	0.81	0.81	1.3	1.3	-	-	-	-	-	-	190	500	-
			Commercial/Industrial		0.69	0.083	11	-	-	18	0.072	9.1	9.1	1.3	1.3	-	-	-	-	-	-	190	500	-
CCME - AW [2]			**Freshwater**		0.37	0.002	0.09	-	-	-	0.072	-	-	-	-	-	-	-	-	-	-	192	500	-
			Marine		0.11	0.215	0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	-	-	-	-	-	-	-	0.27	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	<0.00050	0.00066	<0.00050	0.00063	<0.0010	-	-	<0.10	<0.10	<0.10	-	<0.25	-	<0.25	Yes	<0.38	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	-	-	-	-	-	-	-	<0.10	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	-	-	<0.10	<0.10	<0.10	-	<0.25	-	<0.25	Yes	<0.38	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	-	-	-	-	-	-	-	<0.10	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	-	-	<0.10	<0.10	<0.10	-	<0.25	-	<0.25	Yes	<0.38	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	-	-	-	-	-	-	-	<0.10	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	-	-	-	-	-	-	-	<0.10	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	-	-	-	-	-	-	-	<0.10	-	<0.36	-	<0.36	-	<0.36	-	-	-	-	-	-
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	-	-	<0.10	<0.10	<0.10	-	<0.25	-	<0.25	Yes	<0.38	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	-	-	-	-	-	-	-	<0.10	-	<0.30	-	<0.30	-	<0.30	-	-	-	-	-	-
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	-	-	<0.10	<0.10	<0.10	-	<0.25	-	<0.25	Yes	<0.38	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	-	-	-	<0.100	-	<0.250	-	<0.250	Yes	-	-	-	-	-
Mann-Kendall Trend Analyses																								

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

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[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

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[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

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Table 2: Groundwater Analytical Results

					Hydrocarbons																Glycols			
					Benzene	Toluene	Ethylbenzene	Xylene (o)	Xylenes (m & p)	Xylenes Total	Styrene	F1 (C_6-C_{10})	F1 (C_6-C_{10}) - BTEX	F2 (C_{10}-C_{16})	F2-NAPHTHALENE	F3 (C_{16}-C_{34})	F3-PAH	F4 (C_{34}-C_{50})	Chrom. to baseline at nC_{50}	Total Hydrocarbons (C_6-C_{50})	Diethylene glycol	Ethylene glycol	Propylene glycol	Triethylene Glycol
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	N/A	N/A	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			0.14	0.083	11	-	-	3.9	0.072	0.81	0.81	1.3	1.3	-	-	-	-	-	-	190	500	-
		Commercial/Industrial			0.69	0.083	11	-	-	18	0.072	9.1	9.1	1.3	1.3	-	-	-	-	-	-	190	500	-
CCME - AW [2]		**Freshwater**			0.37	0.002	0.09	-	-	-	0.072	-	-	-	-	-	-	-	-	-	-	192	500	-
		Marine			0.11	0.215	0.025	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
Hazardous Waste Berm Area																								
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	<0.00050	<0.00040	<0.00050	0.00199	0.00141	0.0034	<0.00050	<0.10	<0.10	0.21	0.21	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	<0.00050	<0.00040	<0.00050	<0.00030	<0.00040	<0.00064	<0.00050	<0.10	<0.10	<0.10	<0.10	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	<0.00050	<0.00040	<0.00050	0.00033	<0.00040	<0.0011	<0.00050	<0.10	<0.10	<0.10	<0.10	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	<0.00050	<0.00040	0.00245	0.0242	0.00076	0.025	<0.00050	<0.10	<0.10	0.16	0.15	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	<0.00050	<0.00040	<0.00050	<0.00030	<0.00040	<0.0011	<0.00050	<0.10	<0.10	<0.10	<0.10	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	<0.00050	<0.00040	<0.00050	<0.00030	<0.00040	<0.0011	<0.00050	<0.10	<0.10	<0.10	<0.10	<0.25	<0.25	<0.25	Yes	<0.38	<5.0	<5.0	<5.0	<5.0
Mann-Kendall Trend Analyses																								

Italic - Detection limit greater than guideline
CNC - Could not calculate

Notes:

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[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

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CNC - Could not calculate

Table 2: Groundwater Analytical Results

					Polycyclic Aromatic Hydrocarbons (PAHs)																				
					B(a)P Total Potency Equivalent	Benzo(b&j)fluoranthene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Methylnaphthalenes	Naphthalene	Phenanthrene	Pyrene	Quinoline
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]			**Residential/Parkland**		-	-	0.0058	0.046	0.00005	0.000012	0.000018	0.00001	0.00017	0.00048	0.0001	0.00026	0.00004	0.003	0.00021	0.18	0.18	0.18	0.0011	0.0004	0.000025	0.0034
			Commercial/Industrial		-	-	0.0058	0.046	0.00005	0.000012	0.000018	0.000017	0.00021	0.00048	0.0014	0.00028	0.00004	0.003	0.00023	0.18	0.18	0.18	0.0011	0.0004	0.000025	0.0034
CCME - AW [2]			**Freshwater**		-	-	0.0058	-	0.0044	0.000012	0.000018	0.000015	-	-	-	-	0.00004	0.003	-	-	-	-	0.0011	0.0004	0.000025	0.0034
			Marine		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0014	-	-	-
Landfill Area																										
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																						
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																										

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Table 2: Groundwater Analytical Results

					Polycyclic Aromatic Hydrocarbons (PAHs)																				
					B(a)P Total Potency Equivalent	Benzo(b&j)fluoranthene	Acenaphthene	Acenaphthylene	Acridine	Anthracene	Benz(a)anthracene	Benzo(a) pyrene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Methylnaphthalenes	Naphthalene	Phenanthrene	Pyrene	Quinoline
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			-	-	0.0058	0.046	0.00005	0.000012	0.000018	0.00001	0.00017	0.00048	0.0001	0.00026	0.00004	0.003	0.00021	0.18	0.18	0.18	0.0011	0.0004	0.000025	0.0034
		Commercial/Industrial			-	-	0.0058	0.046	0.00005	0.000012	0.000018	0.000017	0.00021	0.00048	0.0014	0.00028	0.00004	0.003	0.00023	0.18	0.18	0.18	0.0011	0.0004	0.000025	0.0034
CCME - AW [2]		**Freshwater**			-	-	0.0058	-	0.0044	0.000012	0.000018	0.000015	-	-	-	-	0.00004	0.003	-	-	-	-	0.0011	0.0004	0.000025	0.0034
		Marine			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0.0014	-	-	-
Landfill Area																										
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																						
Italic - Detection limit greater than guideline																										
CNC - Could not calculate																										
Hazardous Waste Berm Area																										
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	<0.000060	<0.000020	<0.000020	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000057	<0.000020	0.00103	0.000707	0.00174	<0.000505	<0.000020	<0.000020	<0.000040
Mann-Kendall Trend Analyses																										
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	<0.000060	<0.000020	<0.000020	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000027	<0.000020	<0.0000208	<0.000050	<0.000020	<0.000020	<0.000040
Mann-Kendall Trend Analyses																										
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	<0.000060	<0.000020	<0.000020	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000123	<0.0000607	0.000123	<0.000050	<0.000020	<0.000020	<0.000065
Mann-Kendall Trend Analyses																										
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	<0.000060	<0.000020	0.000049	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000049	<0.000020	0.00711	0.00802	0.0151	**0.0103**	<0.000020	<0.000020	<0.00011
Mann-Kendall Trend Analyses																										
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	<0.000060	<0.000020	<0.000020	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.0000208	<0.000050	<0.000020	<0.000020	<0.000040
Mann-Kendall Trend Analyses																										
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	<0.000060	<0.000020	<0.000020	<0.000020	*<0.0040*	*<0.000020*	*<0.000020*	<0.0000050	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	<0.000020	0.000116	<0.000044	0.000116	<0.000050	<0.000020	<0.000020	<0.000040
Mann-Kendall Trend Analyses																										

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

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[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

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[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

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Table 2: Groundwater Analytical Results

					Volatile Organic Compounds (VOCs)																			
					Acetone	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene (cis)
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]			**Residential/Parkland**		13	8.5	0.38	0.0056	150	-	0.00056	0.0013	-	0.0018	-	1.1	0.00025	0.0007	0.042	0.026	0.32	0.01	0.039	0.0016
			Commercial/Industrial		13	8.5	3.7	0.033	150	-	0.0068	0.0013	-	0.0018	-	10	0.0051	0.0007	0.042	0.026	6.6	0.1	0.49	0.03
CCME - AW [2]			**Freshwater**		-	-	-	-	-	-	0.0133	0.0013	-	0.0018	-	-	-	0.0007	0.15	0.026	-	0.1	-	-
			Marine		-	-	-	-	-	-	-	0.025	-	-	-	-	-	0.042	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								

Notes:

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Table 2: Groundwater Analytical Results

					Volatile Organic Compounds (VOCs)																			
					Acetone	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	Carbon disulfide	Carbon tetrachloride	Chlorobenzene	Chloroethane	Chloroform	Chloromethane	Dibromochloromethane	1,2-Dibromoethane	1,2-Dichlorobenzene	1,3-Dichlorobenzene	1,4-Dichlorobenzene	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	1,2-Dichloroethene (cis)
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			13	8.5	0.38	0.0056	150	-	0.00056	0.0013	-	0.0018	-	1.1	0.00025	0.0007	0.042	0.026	0.32	0.01	0.039	0.0016
		Commercial/Industrial			13	8.5	3.7	0.033	150	-	0.0068	0.0013	-	0.0018	-	10	0.0051	0.0007	0.042	0.026	6.6	0.1	0.49	0.03
CCME - AW [2]		**Freshwater**			-	-	-	-	-	-	0.0133	0.0013	-	0.0018	-	-	-	0.0007	0.15	0.026	-	0.1	-	-
		Marine			-	-	-	-	-	-	-	0.025	-	-	-	-	-	0.042	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
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Mann-Kendall Trend Analyses																								
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	<0.020	<0.0010	<0.0010	<0.00050	<0.020	<0.0010	<0.00020	<0.00050	<0.0010	<0.0010	<0.0020	<0.0010	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	<0.020	<0.0010	<0.0010	<0.00050	<0.020	<0.0010	<0.00020	<0.00050	<0.0010	<0.0010	<0.0020	<0.0010	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
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MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	<0.020	<0.0010	<0.0010	<0.00050	<0.020	<0.0010	<0.00020	<0.00050	<0.0010	<0.0010	<0.0020	<0.0010	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	<0.020	<0.0010	<0.0010	<0.00050	<0.020	<0.0010	<0.00020	<0.00050	<0.0010	<0.0010	<0.0020	<0.0010	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	<0.020	<0.0010	<0.0010	<0.00050	<0.020	<0.0010	<0.00020	<0.00050	<0.0010	<0.0010	<0.0020	<0.0010	<0.00020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050
Mann-Kendall Trend Analyses																								

Italic - Detection limit greater than guideline
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Notes:

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Table 2: Groundwater Analytical Results

					Volatile Organic Compounds (VOCs)																			
					1,2-Dichloroethene (trans)	Dichlorodifluoromethane	1,2-Dichloropropane	1,3-Dichloropropene [cis]	1,3-Dichloropropene [trans]	n-Hexane	2-Hexanone (MBK)	Methyl-tert-butylether (MTBE)	Methylene Chloride	4-Methyl-2-pentanone (MIBK)	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Trihalomethanes	Vinyl chloride
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]			**Residential/Parkland**		0.0016	-	0.016	-	-	-	-	0.34	0.098	58	0.0034	0.0032	0.012	0.64	0.0047	0.02	-	-	0.0011
			Commercial/Industrial		0.03	-	0.33	-	-	-	-	4.3	0.098	58	0.066	0.063	0.11	1.1	0.094	0.029	-	-	0.013
CCME - AW [2]			**Freshwater**		-	-	-	-	-	-	-	10	0.0981	-	-	-	0.11	-	-	0.021	-	-	-
			Marine		-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
MS-LF-GW1	MS-LF-GW1-17	7-Sep-2017	L1988863	L1988863-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-18	15-Sep-2018	L2167895	L2167895-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW101 (Dup)	16-Sep-2018	L2167895	L2167895-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-19	27-Sep-2019	L2356948	L2356948-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1-20	8-Sep-2020	L2500859	L2500859-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW1_2021-09-20	20-Sep-2021	L2642226	L2642226-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW2	MS-LF-GW2-17	7-Sep-2017	L1988863	L1988863-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-18	16-Sep-2018	L2167895	L2167895-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-19 **	28-Sep-2019	L2356948	L2356948-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-20	8-Sep-2020	L2500859	L2500859-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2_2021-09-20	20-Sep-2021	L2642226	L2642226-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW3	MS-LF-GW3-17	7-Sep-2017	L1988863	L1988863-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-18	16-Sep-2018	L2167895	L2167895-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW2-19 **	28-Sep-2019	L2356948	L2356948-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3-20	8-Sep-2020	L2500859	L2500859-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW3_2021-09-21	21-Sep-2021	L2642226	L2642226-7	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW4	MS-LF-GW4-20	8-Sep-2020	L2500859	L2500859-8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW5	MS-LF-GW5-20	8-Sep-2020	L2500859	L2500859-9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF1	MS-LF-GW-REF1-18	15-Sep-2018	L2167895	L2167895-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-19	27-Sep-2019	L2356948	L2356948-1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF101 (Dup)	27-Sep-2019	L2356948	L2356948-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1-20	8-Sep-2020	L2500859	L2500859-5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF1_2021-09-21	21-Sep-2021	L2642226	L2642226-6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2	MS-LF-GW-REF2-18	15-Sep-2018	L2167895	L2167895-2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-19	28-Sep-2019	L2356948	L2356948-3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2-20	8-Sep-2020	L2500859	L2500859-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	MS-LF-GW-REF2_2021-09-20	20-Sep-2021	L2642226	L2642226-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								
MS-LF-GW-REF2 South	MS-LF-GW-REF2-17	12-Sep-2017	L1988863	L1988863-4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Mann-Kendall Trend Analyses																								

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

[2] Canadian Council of Ministers of the Environment (CCME) (Updated 2019). Water Quality Guidelines for the Protection of Aquatic Life (Freshwater and Marine)

[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

[4] Guideline varies with hardness. Hardness not analyzed; most strinent guideline applied.

[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

[8] Chromium VI guideline applied.

[9] Maximum increase of 8 NTUs from background values for short-term exposure

[10] Minimum acceptable concentration of 6.0 mg/L for warm water biota: early life stages, 5.5 mg/L for warm water biota:other life stages, 9.5 mg/L for cold water biota: early life stages, and 6.5 mg/L for cold water biota: other life stages

[11] Guideline varies with pH, hardness and DOC. Values shown based on pH range of 6.74 to 8.25 and DOC range of 2.68 to 35.2 mg/L. As hardness was not analyzed, the most stringent guideline has been applied.

** Sample names MS-LF-GW2 and MS-LF-GW3 were switched for the September 2019 Groundwater Sampling Event.

"-" No applicable guideline or not analyzed

Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

Bold - Greater than CCME Aquatic Life Freshwater and/or Marine Guideline

Table 2: Groundwater Analytical Results

					Volatile Organic Compounds (VOCs)																			
					1,2-Dichloroethene (trans)	Dichlorodifluoromethane	1,2-Dichloropropane	1,3-Dichloropropene [cis]	1,3-Dichloropropene [trans]	n-Hexane	2-Hexanone (MBK)	Methyl-tert-butylether (MTBE)	Methylene Chloride	4-Methyl-2-pentanone (MIBK)	1,1,1,2-Tetrachloroethane	1,1,2,2-Tetrachloroethane	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Trichlorofluoromethane	Trihalomethanes	Vinyl chloride
					mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
Federal Interim Guideline [1]		**Residential/Parkland**			0.0016	-	0.016	-	-	-	-	0.34	0.098	58	0.0034	0.0032	0.012	0.64	0.0047	0.02	-	-	0.0011
		Commercial/Industrial			0.03	-	0.33	-	-	-	-	4.3	0.098	58	0.066	0.063	0.11	1.1	0.094	0.029	-	-	0.013
CCME - AW [2]		**Freshwater**			-	-	-	-	-	-	-	10	0.0981	-	-	-	0.11	-	-	0.021	-	-	-
		Marine			-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-
Landfill Area																								
Location Code	**Field ID**	**Sample Date**	**Laboratory Report Number**	**Laboratory ID**																				
Hazardous Waste Berm Area																								
MS-HWB-GW3	MS-HWB-GW3_2021-09-26	26-Sep-2021	L2643999	L2643999-4	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	<0.00050	<0.0020	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW4	MS-HWB-GW4_2021-09-26	26-Sep-2021	L2643999	L2643999-7	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	0.00074	<0.0020	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW5	MS-HWB-GW5_2021-09-26	26-Sep-2021	L2643999	L2643999-9	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	<0.00050	<0.0020	<0.020	<0.00050	<0.00050	0.00092	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW7	MS-HWB-GW7_2021-09-26	26-Sep-2021	L2643999	L2643999-6	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	0.00079	<0.0020	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF2	MS-HWB-GW-REF2_2021-09-26	26-Sep-2021	L2643999	L2643999-3	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	<0.00050	<0.0020	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								
MS-HWB-GW-REF3	MS-HWB-GW-REF3_2021-09-26	26-Sep-2021	L2643999	L2643999-1	<0.00050	<0.0010	<0.00050	<0.00030	<0.00030	<0.00050	<0.020	<0.00050	<0.0020	<0.020	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0010	<0.0020	<0.00050
Mann-Kendall Trend Analyses																								

Italic - Detection limit greater than guideline
CNC - Could not calculate

Notes:

[1] Environment Canada (June 2016). Guidance Document on Federal Interim Groundwater Quality Guidelines (FIGQG) for Federal Contaminated Sites, for coarse textured soil under Residential/Parkland and Commercial/Industrial land use

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[3] Guideline varies with pH. Values shown based on site pH range of 6.74 to 8.25.

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[5] Guideline varies with pH and temperature. Values shown based on pH range of 6.74 to 8.25

[6] Guideline varies with pH and hardness. Values shown based on pH range of 6.74 to 8.25, and a default hardness value of 50 mg/L as hardness was not analyzed.

[7] Trigger ranges of total phosphorus for the trophic level status of wetlands are as follows (mg/L): <0.004 - ultra-oligotrophic; 0.004-0.01 - oligotrophic; 0.01-0.02 - mesotrophic; 0.02-0.035 - meso-eutrophic; 0.035-0.1 - eutrophic; >0.1 hyper-eutrophic

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Shaded - Greater than Federal Interim Residential/Parkland and/or Commercial/Industrial Guideline

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Italic - Detection limit greater than guideline

CNC - Could not calculate

Table 3: Groundwater Quality Assurance/Quality Control Analytical Results

		QAQC Type	Field Blanks		Equipment Blanks		Trip Blank	Duplicate			Duplicate		
		Field ID	MS-LF-GW-REF202_2021-09-20	MS-HWB-GW302_2021-09-26	MS-LF-GW304_2021-09-21	MS-HWB-GW404_2021-09-26	MS-HWB-GW503_2021-09-26	MS-LF-GW2_2021-09-20	MS-LF-GW201_2021-09-20	RPD (%)	MS-HWB-GW-REF3_2021-09-26	MS-HWB-GW-REF301_2021-09-20	RPD (%)
		Sample Date	20-Sep-2021	26-Sep-2021	21-Sep-2021	26-Sep-2021	26-Sep-2021	20-Sep-2021	20-Sep-2021		26-Sep-2021	26-Sep-2021	
		Laboratory Report Number	L2642226	L2643999	L2642226	L2643999	L2643999	L2642226	L2642226		L2643999	L2643999	
		Laboratory Sample ID	L2642226-5	L2643999-5	L2642226-8	L2643999-8	L2643999-10	L2642226-2	L2642226-3		L2643999-1	L2643999-2	
Parameter	**Unit**	**RDL**											
Routine													
pH	pH Units	0.1	5.78	5.89	5.80	6.85	5.68	6.94	6.95	0.1	7.47	7.49	0.3
Electrical Conductivity (EC)	µmhos/cm	1	1.3	1.3	1.5	2.0	1.2	2400	2380	1	638	651	2
Total Suspended Solids (TSS)	mg/L	2	2.0	<2.0	<2.0	<2.0	<2.0	36.5	40.0	9	6.0	9.0	-
Total Dissolved Solids (TDS)	mg/L	10	45	63	36	49	46	1910	1970	3	364	387	6
Alkalinity (total as $CaCO_3$)	mg/L	1	<1.0	<1.0	<1.0	1.2	<1.0	388	386	1	328	332	1
Bromide	mg/L	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.50	<0.10	-	<0.10	<0.10	-
Chloride	mg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	85.2	84.8	0.5	28.9	29.1	1
Fluoride	mg/L	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	<0.10	0.049	-	0.029	0.027	-
Sulphate	mg/L	0.3	<0.30	<0.30	<0.30	<0.30	<0.30	1020	972	5	22.8	22.9	0.4
Turbidity	NTU	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	2.65	2.72	3	1.36	4.49	**107**
Total Phosphorus	mg/L	0.003	<0.0030	<0.0030	0.0033	<0.0030	<0.0030	0.152	0.157	3	0.0269	0.0227	17
Nutrients													
Ammonia as N	mg/L	0.01	<0.010	<0.010	<0.010	0.014	<0.010	5.26	4.57	14	0.018	0.017	-
Total Kjeldahl Nitrogen (TKN)	mg/L	0.05	<0.050	<0.050	<0.050	0.09	0.09	6.94	7.65	10	0.42	0.42	0
Nitrate (as NO_3-N)	mg/L	0.02	<0.020	<0.020	<0.020	<0.020	<0.020	4.26	4.26	0	1.10	1.06	4
Carbon													
Dissolved Organic Carbon (DOC)	mg/L	0.5	0.62	<0.50	0.73	0.65	1.07	21.4	20.8	3	7.80	8.20	5
Total Organic Carbon (TOC)	mg/L	0.5	<0.50	0.55	0.81	0.57	0.60	21.6	21.6	0	9.90	9.78	1
Dissolved Metals													
Aluminum	mg/L	0.005	<0.0050	0.0351	<0.0050	<0.0050	<0.0050	<0.050	<0.050	-	<0.0050	<0.0050	-
Antimony	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Arsenic	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	0.00076	0.00082	8
Barium	mg/L	0.0001	<0.00010	0.00039	<0.00010	<0.00010	<0.00010	0.0365	0.0393	7	0.0213	0.0213	0
Beryllium	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Bismuth	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	<0.000050	<0.000050	-
Boron	mg/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	5.57	5.87	5	0.075	0.077	3
Cadmium	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000220	0.000231	-	0.0000112	0.0000071	-
Calcium	mg/L	0.05	<0.050	<0.050	<0.050	0.086	<0.050	316	310	2	45.4	46.0	1
Cesium	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	<0.00010	<0.00010	-	<0.000010	<0.000010	-
Chromium	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	-	<0.00050	<0.00050	-
Cobalt	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0104	0.0110	6	0.00015	0.00014	-
Copper	mg/L	0.0002	<0.00020	<0.00020	0.00032	<0.00020	<0.00020	0.0128	0.0138	8	0.00335	0.00330	2
Iron	mg/L	0.01	<0.010	0.047	<0.010	<0.010	<0.010	<0.10	<0.10	-	<0.010	<0.010	-
Lead	mg/L	0.00005	<0.000050	0.00046	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	<0.000050	<0.000050	-
Lithium	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.141	0.141	0	0.0053	0.0051	4
Magnesium	mg/L	0.005	<0.0050	0.0346	0.0112	0.0477	<0.0050	100	102	2	47.9	47.9	0
Manganese	mg/L	0.0005	<0.00050	0.00099	<0.00050	<0.00050	<0.00050	1.91	2.01	5	0.0317	0.0321	1
Mercury	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	-	<0.0000050	<0.0000050	-
Molybdenum	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00294	0.00313	6	0.000641	0.000634	1
Nickel	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.141	0.157	11	0.00773	0.00776	0.4
Phosphorus	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.50	<0.50	-	<0.050	<0.050	-
Potassium	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	26.3	27.4	4	4.00	4.02	0.5
Rubidium	mg/L	0.0002	<0.00020	0.00022	<0.00020	<0.00020	<0.00020	0.0220	0.0231	5	0.00401	0.00400	0.2
Selenium	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	0.000166	0.000204	-
Silicon	mg/L	0.05	<0.050	0.057	<0.050	<0.050	<0.050	5.04	5.22	4	5.56	5.64	1
Silver	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	<0.000050	<0.000050	-
Sodium	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	80.7	85.5	6	10.2	10.4	2
Strontium	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.476	0.476	0	0.0787	0.0760	3
Sulphur	mg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	349	356	2	8.09	8.14	1
Tellurium	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.0020	<0.0020	-	<0.00020	<0.00020	-
Thallium	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.00017	0.00017	0	0.000013	0.000014	-
Thorium	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Tin	mg/L	0.0001	<0.00010	<0.00010	0.00135	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Titanium	mg/L	0.0003	<0.00030	0.00319	<0.00030	<0.00030	<0.00030	<0.0030	<0.0030	-	<0.00030	<0.00030	-
Tungsten	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Uranium	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.0520	0.0537	3	0.00331	0.00327	1
Vanadium	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.0050	<0.0050	-	<0.00050	<0.00050	-
Zinc	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.010	<0.010	-	<0.0010	<0.0010	-
Zirconium	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.0020	<0.0020	-	0.00053	0.00055	-

Notes:
RDL - Reportable detection limit
RPD - Relative Percentage Difference calculated as RPD(%)=(|V1-V2|)/[(V1+V2)/2])*100 where V1,V2 = concentrations of parent and duplicate sample, respectively.
"-" Indicates RPD not calculated. RPDs have only been calculated where a concentration is greater than 5 times the RDL
N/A - Not applicable
BOLD - RPD value greater than 20%
Shaded- Detect Value in Blank Sample

Table 3: Groundwater Quality Assurance/Quality Control Analytical Results

QAQC Type			Field Blanks		Equipment Blanks		Trip Blank	Duplicate			Duplicate			
Field ID			MS-LF-GW-REF202_2021-09-20	MS-HWB-GW302_2021-09-26	MS-LF-GW304_2021-09-21	MS-HWB-GW404_2021-09-26	MS-HWB-GW503_2021-09-26	MS-LF-GW2_2021-09-20	MS-LF-GW201_2021-09-20	RPD (%)	MS-HWB-GW-REF3_2021-09-26	MS-HWB-GW-REF301_2021-09-20	RPD (%)
Sample Date			20-Sep-2021	26-Sep-2021	21-Sep-2021	26-Sep-2021	26-Sep-2021	20-Sep-2021	20-Sep-2021		26-Sep-2021	26-Sep-2021	
Laboratory Report Number			L2642226	L2643999	L2642226	L2643999	L2643999	L2642226	L2642226		L2643999	L2643999	
Laboratory Sample ID			L2642226-5	L2643999-5	L2642226-8	L2643999-8	L2643999-10	L2642226-2	L2642226-3		L2643999-1	L2643999-2	
Total Metals													
Aluminum	mg/L	0.005	<0.0050	0.0539	0.0110	<0.0050	<0.0050	2.77	0.419	**147**	0.396	0.167	**81**
Antimony	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Arsenic	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0017	0.0012	**34**	0.00094	0.00083	12
Barium	mg/L	0.0001	<0.00010	0.00055	0.00014	<0.00010	<0.00010	0.0601	0.0442	**30**	0.0239	0.0233	3
Beryllium	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Bismuth	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	<0.000050	<0.000050	-
Boron	mg/L	0.01	<0.010	<0.010	<0.010	<0.010	<0.010	5.88	6.22	6	0.080	0.083	4
Cadmium	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.000302	0.000257	16	0.0000115	0.0000089	-
Calcium	mg/L	0.05	<0.050	<0.050	0.067	0.095	<0.050	318	324	2	47.0	46.5	1
Cesium	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.00056	0.000150	**115**	0.000082	0.000054	**41**
Chromium	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0295	<0.0050	-	0.00491	0.00164	-
Cobalt	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	0.0158	0.0114	**32**	0.00082	0.00043	-
Copper	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0220	0.0157	**33**	0.00495	0.00394	**23**
Iron	mg/L	0.01	<0.010	0.085	0.017	<0.010	<0.010	5.66	0.81	**150**	0.932	0.366	**87**
Lead	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00301	0.00073	**122**	0.000956	0.000570	**51**
Lithium	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.155	0.155	0	0.0061	0.0060	2
Magnesium	mg/L	0.005	<0.0050	0.0979	0.0497	0.0480	0.0051	112	103	8	49.8	49.6	0.4
Manganese	mg/L	0.0005	<0.00050	0.00123	<0.00050	<0.00050	<0.00050	2.15	2.03	6	0.0476	0.0424	12
Mercury	mg/L	0.000005	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	<0.0000050	0.0000076	-	<0.0000050	<0.0000050	-
Molybdenum	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	0.00344	0.00306	12	0.000660	0.000666	1
Nickel	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.182	0.153	17	0.0130	0.00943	**32**
Phosphorus	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	<0.50	<0.50	-	<0.050	<0.050	-
Potassium	mg/L	0.05	<0.050	<0.050	<0.050	<0.050	<0.050	29.1	28.3	3	4.06	4.19	3
Rubidium	mg/L	0.0002	<0.00020	0.00021	<0.00020	<0.00020	<0.00020	0.0270	0.0243	11	0.00496	0.00458	8
Selenium	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	0.000067	0.000067	0
Silicon	mg/L	0.1	<0.10	0.11	<0.10	<0.10	<0.10	10.9	6.10	**56**	6.76	6.14	10
Silver	mg/L	0.00005	<0.000050	<0.000050	<0.000050	<0.000050	<0.000050	<0.00050	<0.00050	-	<0.000050	<0.000050	-
Sodium	mg/L	0.05	<0.050	<0.050	<0.050	0.080	<0.050	84.2	86.0	2	10.7	10.4	3
Strontium	mg/L	0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.505	0.465	8	0.0820	0.0815	1
Sulphur	mg/L	0.5	<0.50	<0.50	<0.50	<0.50	<0.50	335	331	1	7.43	7.49	1
Tellurium	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.0020	<0.0020	-	<0.00020	<0.00020	-
Thallium	mg/L	0.00001	<0.000010	<0.000010	<0.000010	<0.000010	<0.000010	0.00021	0.00018	15	0.000024	0.000020	18
Thorium	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	0.00037	0.00024	-
Tin	mg/L	0.0001	<0.00010	<0.00010	0.00036	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Titanium	mg/L	0.0003	<0.00030	0.00369	0.00074	<0.00030	<0.00030	0.220	0.0269	**156**	0.0281	0.0103	**93**
Tungsten	mg/L	0.0001	<0.00010	<0.00010	<0.00010	<0.00010	<0.00010	<0.0010	<0.0010	-	<0.00010	<0.00010	-
Uranium	mg/L	0.00001	<0.000010	0.000015	<0.000010	<0.000010	<0.000010	0.0530	0.0530	0	0.00340	0.00339	0.3
Vanadium	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	0.0092	<0.0050	-	0.00143	0.00070	-
Zinc	mg/L	0.003	<0.0030	<0.0030	<0.0030	<0.0030	<0.0030	<0.030	<0.030	-	0.0056	<0.0030	-
Zirconium	mg/L	0.0002	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	0.0022	<0.0020	-	0.00092	0.00089	-
Oil & Grease													
Oil and Grease	mg/L	2	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	-	<2.0	<2.0	-
Hydrocarbons													
Benzene	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-	<0.00050	<0.00050	-
Toluene	mg/L	0.0004	<0.00050	<0.00040	<0.00050	<0.00040	<0.00040	<0.00050	<0.00050	-	<0.00040	<0.00040	-
Ethylbenzene	mg/L	0.0005	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	<0.00050	-	<0.00050	<0.00050	-
Xylene (o)	mg/L	0.0003	<0.00050	<0.00030	<0.00050	<0.00030	<0.00030	<0.00050	<0.00050	-	<0.00030	<0.00030	-
Xylenes (m & p)	mg/L	0.0004	<0.0010	<0.00040	<0.0010	<0.00040	<0.00040	<0.0010	<0.0010	-	<0.00040	<0.00040	-
Xylenes Total	mg/L	0.0005	-	<0.00050	-	<0.00101	<0.00050	-	-	-	<0.0011	<0.00050	-
Styrene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-
F1 (C_6-C_{10})	mg/L	0.1	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	-	<0.10	<0.10	-
F1 (C_6-C_{10}) - BTEX	mg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	<0.10	<0.10	-
F2 (C_{10}-C_{16})	mg/L	0.1	-	<0.10	<0.10	<0.10	<0.10	<0.10	-	-	<0.10	<0.10	-
F2-NAPHTHALENE	mg/L	0.1	-	<0.10	-	<0.10	<0.10	-	-	-	<0.10	<0.10	-
F3 (C_{16}-C_{34})	mg/L	0.25	-	<0.25	<0.25	<0.25	<0.25	<0.25	-	-	<0.25	<0.25	-
F3-PAH	mg/L	0.25	-	<0.25	-	<0.25	<0.25	-	-	-	<0.25	<0.25	-
F4 (C_{34}-C_{50})	mg/L	0.25	-	<0.25	<0.25	<0.25	<0.25	<0.25	-	-	<0.25	<0.25	-
Total Hydrocarbons (C_6-C_{50})	N/A	0.38	-	<0.38	<0.38	<0.38	<0.38	<0.38	-	-	<0.38	<0.38	-
Glycols													
Diethylene glycol	mg/L	5	-	<5.0	-	<5.0	<5.0	-	-	-	<5.0	<5.0	-
Ethylene glycol	mg/L	5	-	<5.0	-	<5.0	<5.0	-	-	-	<5.0	<5.0	-
Propylene glycol	mg/L	5	-	<5.0	-	<5.0	<5.0	-	-	-	<5.0	<5.0	-
Triethylene Glycol	mg/L	5	-	<5.0	-	<5.0	<5.0	-	-	-	<5.0	<5.0	-

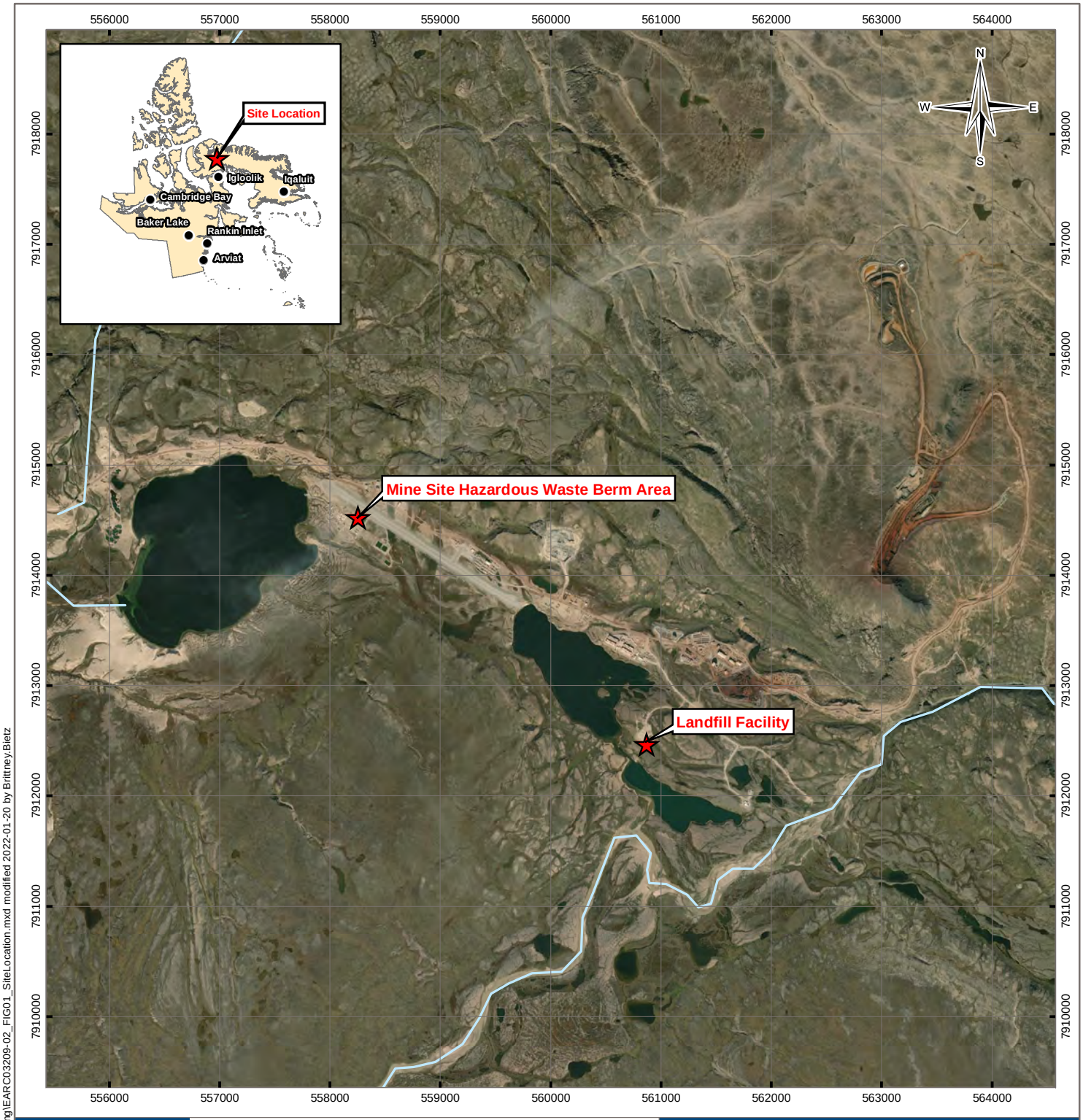
Notes:
RDL - Reportable detection limit
RPD - Relative Percentage Difference calculated as RPD(%)=([V1-V2])/[(V1+V2)/2])*100 where V1,V2 = concentrations of parent and duplicate sample, respectively.
"-" Indicates RPD not calculated. RPDs have only been calculated where a concentration is greater than 5 times the RDL
N/A - Not applicable
BOLD - RPD value greater than 20%
Shaded- Detect Value in Blank Sample

Table 3: Groundwater Quality Assurance/Quality Control Analytical Results

			QAQC Type	Field Blanks		Equipment Blanks		Trip Blank	Duplicate			Duplicate		
			Field ID	MS-LF-GW-REF202_2021-09-20	MS-HWB-GW302_2021-09-26	MS-LF-GW304_2021-09-21	MS-HWB-GW404_2021-09-26	MS-HWB-GW503_2021-09-26	MS-LF-GW2_2021-09-20	MS-LF-GW201_2021-09-20	RPD (%)	MS-HWB-GW-REF3_2021-09-26	MS-HWB-GW-REF301_2021-09-20	RPD (%)
			Sample Date	20-Sep-2021	26-Sep-2021	21-Sep-2021	26-Sep-2021	26-Sep-2021	20-Sep-2021	20-Sep-2021		26-Sep-2021	26-Sep-2021	
			Laboratory Report Number	L2642226	L2643999	L2642226	L2643999	L2643999	L2642226	L2642226		L2643999	L2643999	
			Laboratory Sample ID	L2642226-5	L2643999-5	L2642226-8	L2643999-8	L2643999-10	L2642226-2	L2642226-3		L2643999-1	L2643999-2	
Polycyclic Aromatic Hydrocarbons (PAHs)														
B(a)P Total Potency Equivalent	mg/L	0.00006	-	<0.000060	-	<0.000060	<0.000060	-	-	-	<0.000060	<0.000060	-	
Benzo(b&j)fluoranthene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Acenaphthene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Acenaphthylene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Acridine	mg/L	0.004	-	<0.0040	-	<0.0040	<0.0040	-	-	-	<0.0040	<0.0040	-	
Anthracene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Benz(a)anthracene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Benzo(a) pyrene	mg/L	0.000005	-	<0.0000050	-	<0.0000050	<0.0000050	-	-	-	<0.0000050	<0.0000050	-	
Benzo(g,h,i)perylene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Benzo(k)fluoranthene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Chrysene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Dibenz(a,h)anthracene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Fluoranthene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Fluorene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Indeno(1,2,3-c,d)pyrene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
1-Methylnaphthalene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	0.000116	0.000113	3	
2-Methylnaphthalene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000044	<0.000046	-	
Methylnaphthalenes	mg/L	0.0000283	-	<0.000028	-	<0.000028	<0.000028	-	-	-	0.000116	0.000113	3	
Naphthalene	mg/L	0.00005	-	<0.000050	-	<0.000050	<0.000050	-	-	-	<0.000050	<0.000050	-	
Phenanthrene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Pyrene	mg/L	0.00002	-	<0.000020	-	<0.000020	<0.000020	-	-	-	<0.000020	<0.000020	-	
Quinoline	mg/L	0.00004	-	<0.000040	-	<0.000040	<0.000040	-	-	-	<0.000040	<0.000040	-	
Volatile Organic Compounds (VOCs)														
Acetone	mg/L	0.02	-	<0.020	-	<0.020	<0.020	-	-	-	<0.020	<0.020	-	
Bromodichloromethane	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
Bromoform	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
Bromomethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
2-Butanone (MEK)	mg/L	0.02	-	<0.020	-	<0.020	<0.020	-	-	-	<0.020	<0.020	-	
Carbon disulfide	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
Carbon tetrachloride	mg/L	0.0002	-	<0.00020	-	<0.00020	<0.00020	-	-	-	<0.00020	<0.00020	-	
Chlorobenzene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
Chloroethane	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
Chloroform	mg/L	0.001	-	0.0027	-	0.0011	0.0026	-	-	-	<0.0010	<0.0010	-	
Chloromethane	mg/L	0.002	-	<0.0020	-	<0.0020	<0.0020	-	-	-	<0.0020	<0.0020	-	
Dibromochloromethane	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
1,2-Dibromoethane	mg/L	0.0002	-	<0.00020	-	<0.00020	<0.00020	-	-	-	<0.00020	<0.00020	-	
1,2-Dichlorobenzene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,3-Dichlorobenzene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,4-Dichlorobenzene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,1-Dichloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,2-Dichloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,1-Dichloroethene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,2-Dichloroethene (cis)	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,2-Dichloroethene (trans)	mg/L	0.0005	-	0.00056	-	0.00087	0.00080	-	-	-	<0.00050	<0.00050	-	
Dichlorodifluoromethane	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
1,2-Dichloropropane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,3-Dichloropropene [cis]	mg/L	0.0003	-	<0.00030	-	<0.00030	<0.00030	-	-	-	<0.00030	<0.00030	-	
1,3-Dichloropropene [trans]	mg/L	0.0003	-	<0.00030	-	<0.00030	<0.00030	-	-	-	<0.00030	<0.00030	-	
n-Hexane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
2-Hexanone (MBK)	mg/L	0.02	-	<0.020	-	<0.020	<0.020	-	-	-	<0.020	<0.020	-	
Methyl-tert-butylether (MTBE)	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
Methylene Chloride	mg/L	0.002	-	<0.0020	-	<0.0020	<0.0020	-	-	-	<0.0020	<0.0020	-	
4-Methyl-2-pentanone (MIBK)	mg/L	0.02	-	<0.020	-	<0.020	<0.020	-	-	-	<0.020	<0.020	-	
1,1,1,2-Tetrachloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,1,2,2-Tetrachloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
Tetrachloroethene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,1,1-Trichloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
1,1,2-Trichloroethane	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
Trichloroethene	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	
Trichlorofluoromethane	mg/L	0.001	-	<0.0010	-	<0.0010	<0.0010	-	-	-	<0.0010	<0.0010	-	
Trihalomethanes	mg/L	0.002	-	0.0027	-	<0.0020	0.0026	-	-	-	<0.0020	<0.0020	-	
Vinyl chloride	mg/L	0.0005	-	<0.00050	-	<0.00050	<0.00050	-	-	-	<0.00050	<0.00050	-	

Notes:
RDL - Reportable detection limit
RPD - Relative Percentage Difference calculated as RPD(%)=(|V1-V2|)/[(V1+V2)/2])*100 where V1,V2 = concentrations of parent and duplicate sample, respectively.
"-" Indicates RPD not calculated. RPDs have only been calculated where a concentration is greater than 5 times the RDL
N/A - Not applicable
BOLD - RPD value greater than 20%
Shaded- Detect Value in Blank Sample

FIGURES



LEGEND

- Site Location
- Watercourse

NOTES
Base data source: CanVec (2019)
Imagery from ESRI; Maxar (2019).

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM MARY RIVER MINE PROJECT, NUNAVUT

Site Location

PROJECTION	DATUM	CLIENT
UTM Zone 17	NAD83	Baffinland Iron Mines Corporation

Scale: 1:50,000
1 0.5 0 1
Kilometres

FILE NO.
EARC03209-02_FIG01_SiteLocation.mxd

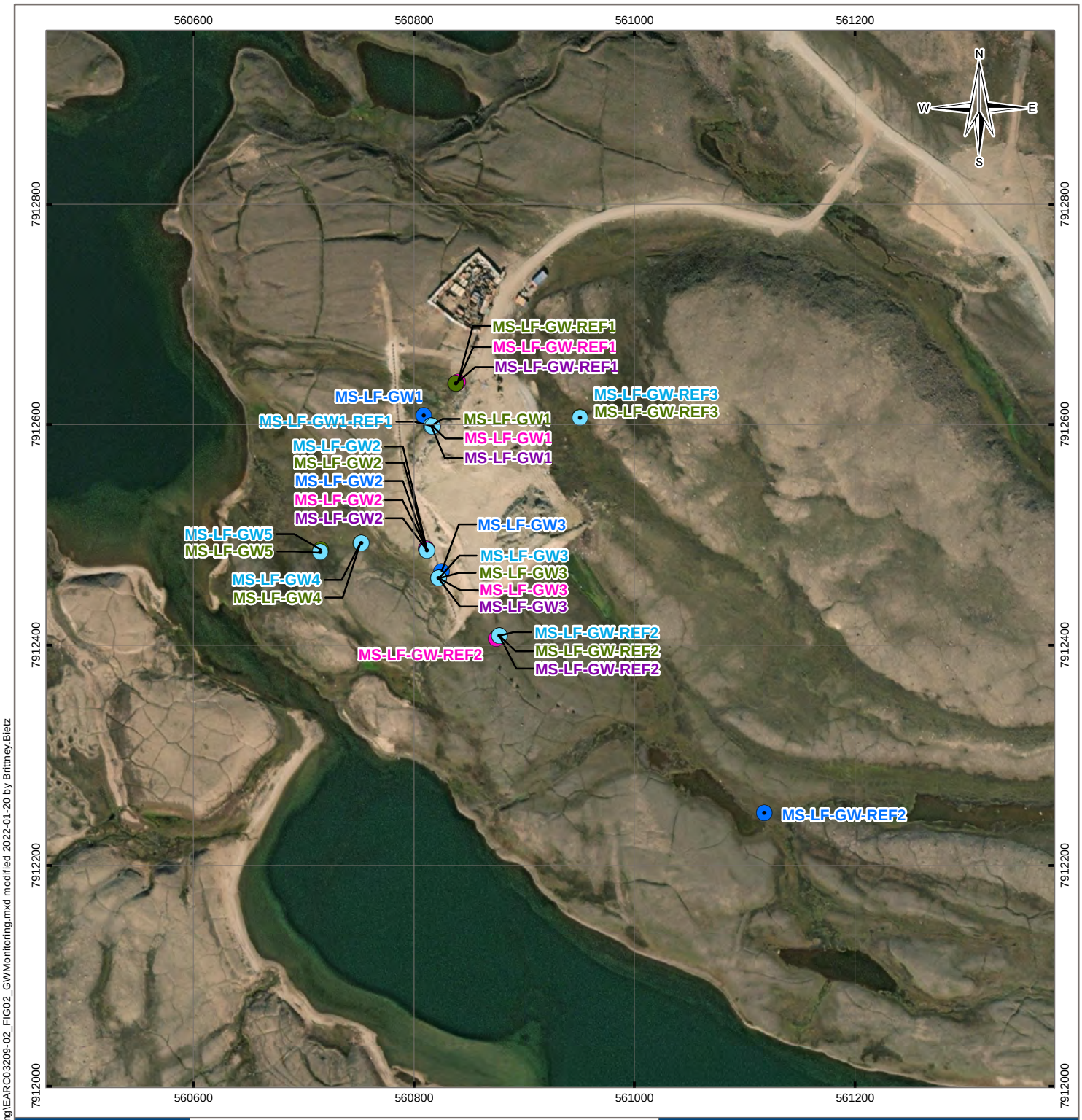
OFFICE	DWN	CKD	APVD	REV
Tt-CAL	BB	SL	AM	0

DATE	PROJECT NO.
March 24, 2022	ENG.EARC03209-02

TETRA TECH

Figure 1

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG01_SiteLocation.mxd modified 2022-01-20 by Brittney.Bietz



LEGEND

- 2021 Drive-point Piezometer Location
- 2020 Drive-point Piezometer Location
- 2019 Drive-point Piezometer Location
- 2018 Drive-point Piezometer Location
- 2017 Drive-point Piezometer Location

NOTES
Base data source:
Imagery from ESRI; Maxar (2019).

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM MARY RIVER MINE PROJECT, NUNAVUT

Current and Historical Groundwater Monitoring Network Landfill Facility

PROJECTION	DATUM	CLIENT
UTM Zone 17	NAD83	Baffinland Iron Mines Corporation

Scale: 1:5,000
100 50 0 100
Metres

FILE NO.
EARC03209-02_FIG02_GWMonitoring.mxd

OFFICE	DWN	CKD	APVD	REV
Tt-VANC	BB	SL	AM	0

DATE
March 24, 2022

PROJECT NO.
ENG.EARC03209-02

TETRA TECH

Figure 2

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG02_GWMonitoring.mxd modified 2022-01-20 by Brittney.Bietz

LEGEND

- 2021 Drive-point Piezometer Location

NOTES
Base data source:
Imagery from ESRI; Maxar (2019).

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM
MARY RIVER MINE PROJECT, NUNAVUT

Current Groundwater Monitoring Network Mine Site Hazardous Waste Berm Area

PROJECTION UTM Zone 17		**DATUM** NAD83			**CLIENT** Baffinland Iron Mines Corporation
Scale: 1:3,500 50 25 0 50 Metres					TETRA TECH
FILE NO. EARC03209-02_FIG03_GWMonitoring_HWB.mxd					
OFFICE Tt-VANC	**DWN** BB	**CKD** SL	**APVD** AM	**REV** 0	**Figure 3**
DATE March 24,, 2022	**PROJECT NO.** ENG.EARC03209-02				

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG03_GWMonitoring_HWB.mxd modified 2022-01-20 by Brittney.Bietz

LEGEND

- Drive-point Piezometer Location
- Groundwater Elevation Contour (masl)
- (xxx.xx) Groundwater Elevation (masl)
- * Not Used In Groundwater Contouring
- Interpreted Direction of Groundwater Flow

NOTES
Base data source:
Imagery from ESRI; Maxar (2019).

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM
MARY RIVER MINE PROJECT, NUNAVUT

Groundwater Elevation, Contour Map
September 20, 2021
Landfill Facility

PROJECTION	DATUM	CLIENT
UTM Zone 17	NAD83	Baffinland Iron Mines Corporation

Scale: 1:3,000
50 25 0 50
Metres

TETRA TECH

FILE NO. EARC03209-02_FIG04_GWcontour_Landfill.mxd

OFFICE	DWN	CKD	APVD	REV
Tt-VANC	BB	SL	AM	0

DATE March 24, 2022
PROJECT NO. ENG.EARC03209-02

Figure 4

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG04_GWcontour_Landfill.mxd modified 2022-01-21 by Brittney.Bietz

LEGEND

- Drive-point Piezometer Location
- Groundwater Elevation Contour (masl)
- (xxx.xx) Groundwater Elevation (masl)
- * Not Used In Groundwater Contouring
- Interpreted Direction of Groundwater Flow

NOTES
Base data source:
Imagery from ESRI; Maxar (2019).

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM
MARY RIVER MINE PROJECT, NUNAVUT

Groundwater Elevation Contour Map
September 26, 2021
Mine Site Hazardous Waste Berm Area

PROJECTION	DATUM	CLIENT
UTM Zone 17	NAD83	Baffinland Iron Mines Corporation

Scale: 1:3,500
50 25 0 50
Metres

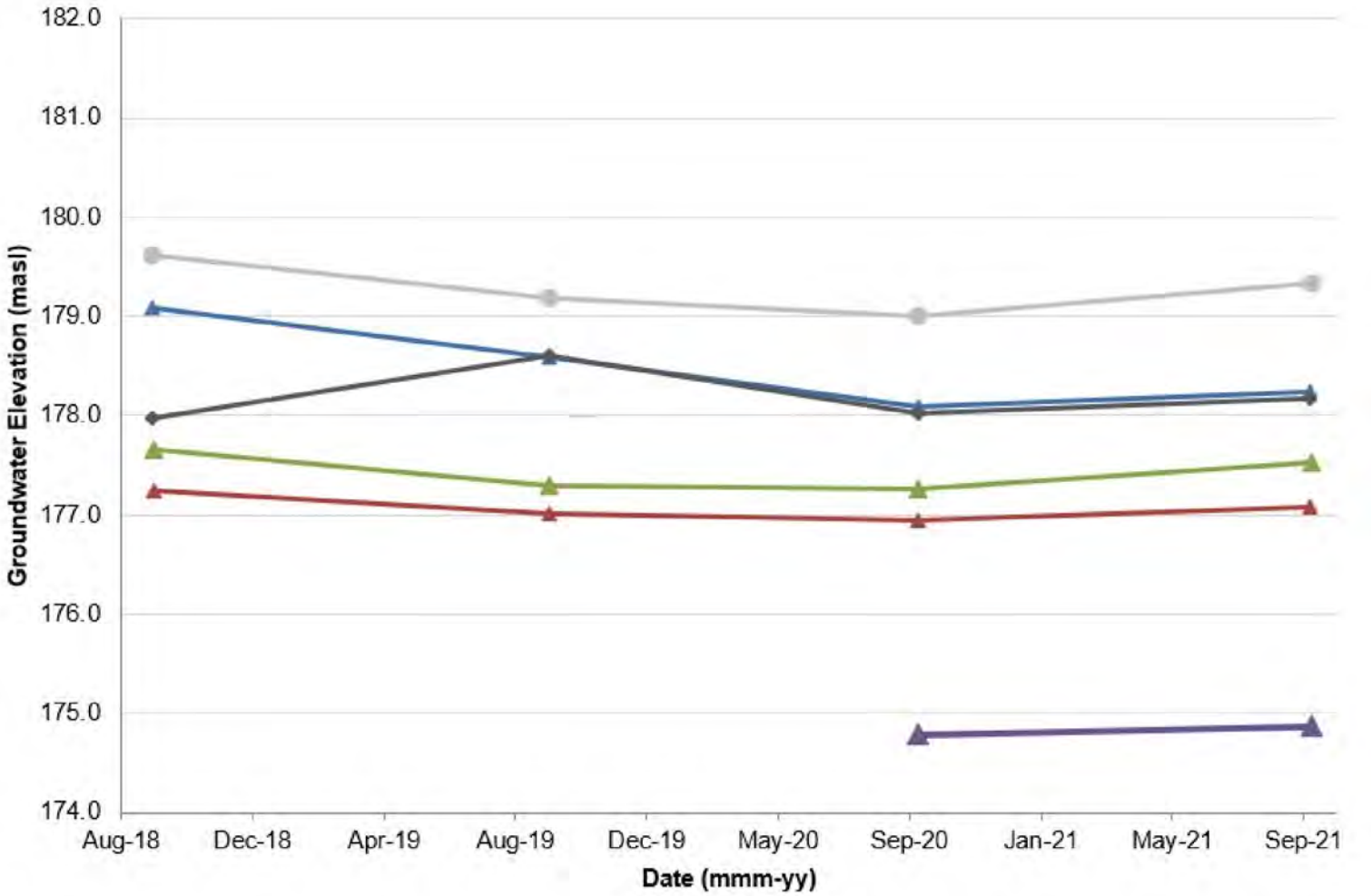
TETRA TECH

FILE NO.				
EARC03209-02_FIG05_GWcontour_HWB.mxd				
OFFICE	**DWN**	**CKD**	**APVD**	**REV**
Tt-VANC	BB	SL	AM	0
DATE	**PROJECT NO.**			
March 24, 2022	ENG.EARC03209-02			

Figure 5

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG05_GWcontour_HWB.mxd modified 2022-01-21 by Brittney.Bietz

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG06_Hydrographs.mxd modified 2022-01-26 by Darren.Schouls



LEGEND

- MS-LF-GW1
- MS-LF-GW2
- MS-LF-GW3
- MS-LF-GW4
- MS-LF-GW-REF1
- MS-LF-GW-REF2

STATUS
ISSUED FOR USE

Scale: N/A

PROJECTION	DATUM
N/A	N/A

FILE NO.
EARC03209-02_FIG06_Hydrographs.mxd

CLIENT
Baffinland Iron Mines Corporation

TETRA TECH

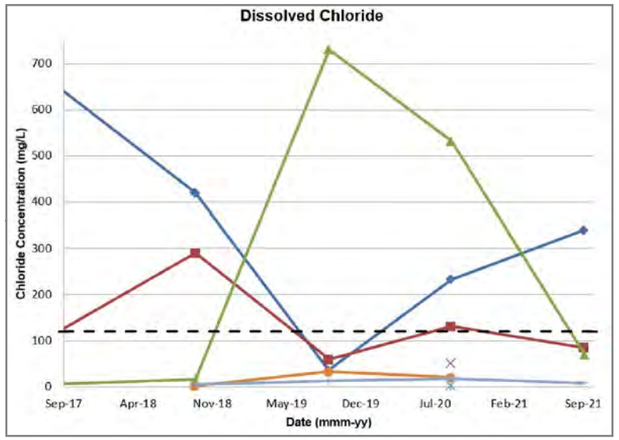
2021 GROUNDWATER MONITORING PROGRAM
MARY RIVER MINE PROJECT, NUNAVUT

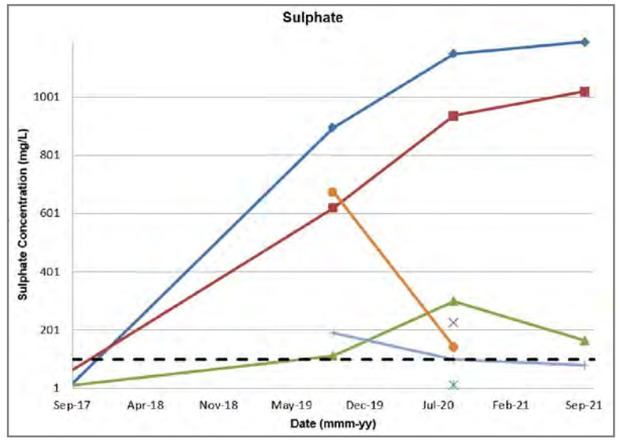
Hydrographs

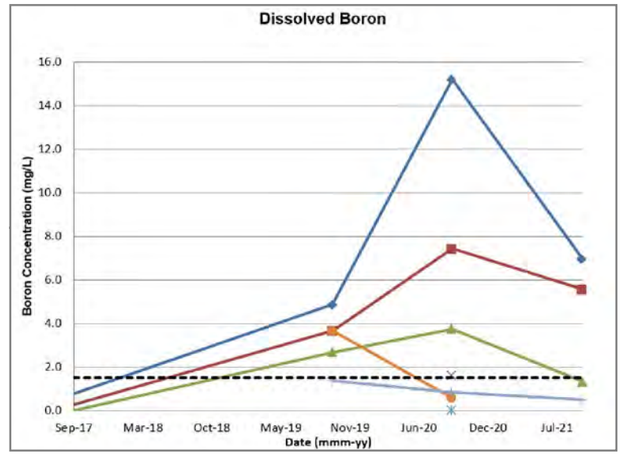
OFFICE	DWN	CKD	APVD	REV
Tt-VANC	DS	SL	NH	0

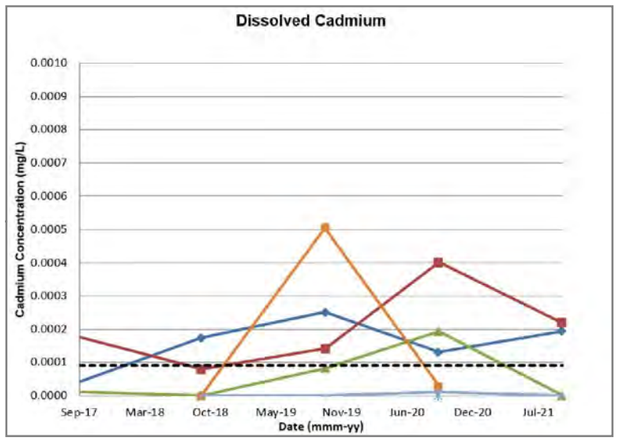
DATE	PROJECT NO.
March 24, 2022	ENG.EARC03209-02

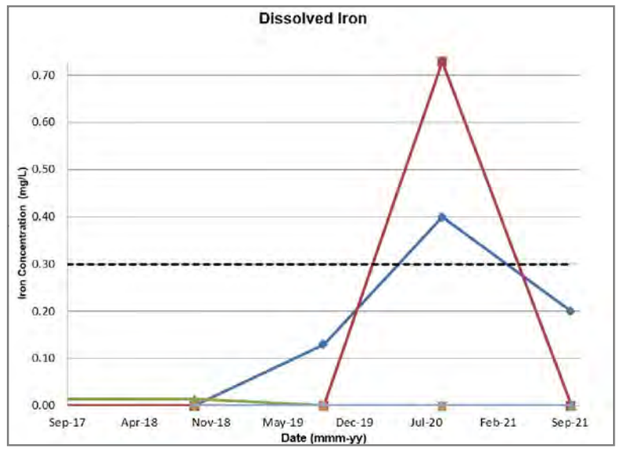
Figure 6

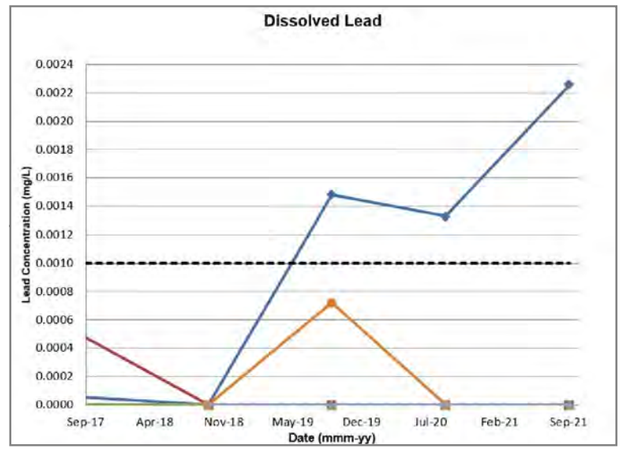


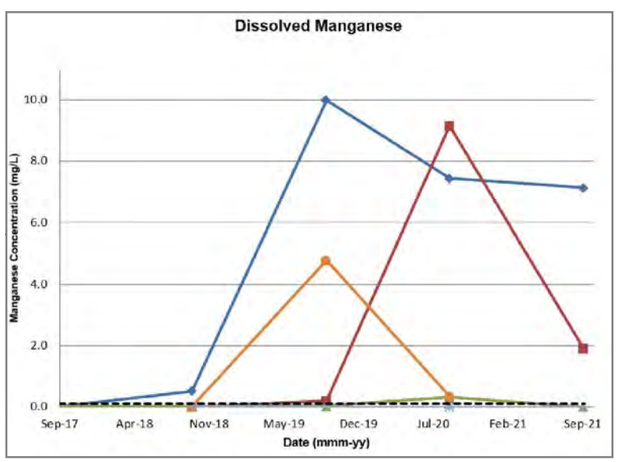


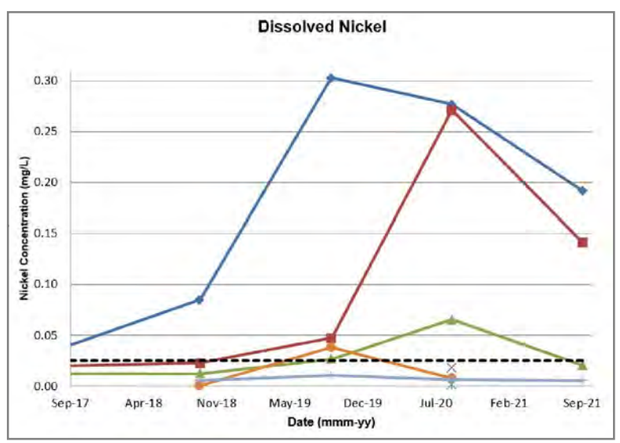


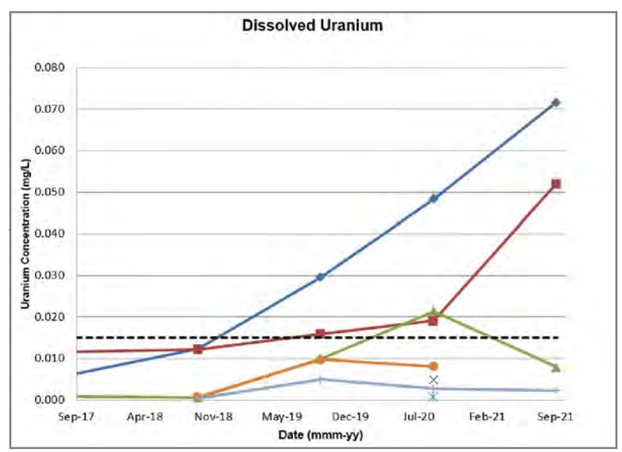












LEGEND

- MS-LF-GW1
- MS-LF-GW2
- MS-LF-GW3
- MS-LF-GW4
- MS-LF-GW5
- MS-LF-GW-REF1
- MS-LF-GW-REF2
- FIGQ and CCME Guideline

STATUS
ISSUED FOR USE

2021 GROUNDWATER MONITORING PROGRAM MARY RIVER MINE PROJECT, NUNAVUT

Trend Graphs

PROJECTION N/A		**DATUM** N/A		**CLIENT** Baffinland Iron Mines Corporation
Scale: N/A				TETRA TECH
FILE NO. EARC03209-02_FIG07_TrendGraphs.mxd				
OFFICE Tt-CAL	**DWN** DS	**CKD** SL	**APVD** NH	**REV** 0
DATE March 24, 2022	**PROJECT NO.** ENG.EARC03209-02			**Figure 7**

M:\ENGINEERING\EARC\EARC03209-02\Maps\Groundwater_Monitoring\EARC03209-02_FIG07_TrendGraphs.mxd modified 2022-01-27 by Darren.Schouls

APPENDIX A

TETRA TECH'S LIMITATIONS ON THE USE OF THIS DOCUMENT

LIMITATIONS ON USE OF THIS DOCUMENT

GEOENVIRONMENTAL

1.1 USE OF DOCUMENT AND OWNERSHIP

This document pertains to a specific site, a specific development, and a specific scope of work. The document may include plans, drawings, profiles and other supporting documents that collectively constitute the document (the "Professional Document").

The Professional Document is intended for the sole use of TETRA TECH's Client (the "Client") as specifically identified in the TETRA TECH Services Agreement or other Contractual Agreement entered into with the Client (either of which is termed the "Contract" herein). TETRA TECH does not accept any responsibility for the accuracy of any of the data, analyses, recommendations or other contents of the Professional Document when it is used or relied upon by any party other than the Client, unless authorized in writing by TETRA TECH.

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1.2 ALTERNATIVE DOCUMENT FORMAT

Where TETRA TECH submits electronic file and/or hard copy versions of the Professional Document or any drawings or other project-related documents and deliverables (collectively termed TETRA TECH's "Instruments of Professional Service"), only the signed and/or sealed versions shall be considered final. The original signed and/or sealed electronic file and/or hard copy version archived by TETRA TECH shall be deemed to be the original. TETRA TECH will archive a protected digital copy of the original signed and/or sealed version for a period of 10 years.

Both electronic file and/or hard copy versions of TETRA TECH's Instruments of Professional Service shall not, under any circumstances, be altered by any party except TETRA TECH. TETRA TECH's Instruments of Professional Service will be used only and exactly as submitted by TETRA TECH.

Electronic files submitted by TETRA TECH have been prepared and submitted using specific software and hardware systems. TETRA TECH makes no representation about the compatibility of these files with the Client's current or future software and hardware systems.

1.3 STANDARD OF CARE

Services performed by TETRA TECH for the Professional Document have been conducted in accordance with the Contract, in a manner consistent with the level of skill ordinarily exercised by members of the profession currently practicing under similar conditions in the jurisdiction in which the services are provided. Professional judgment has been applied in developing the conclusions and/or recommendations provided in this Professional Document. No warranty or guarantee, express or implied, is made concerning the test results, comments, recommendations, or any other portion of the Professional Document.

If any error or omission is detected by the Client or an Authorized Party, the error or omission must be immediately brought to the attention of TETRA TECH.

1.4 DISCLOSURE OF INFORMATION BY CLIENT

The Client acknowledges that it has fully cooperated with TETRA TECH with respect to the provision of all available information on the past, present, and proposed conditions on the site, including historical information respecting the use of the site. The Client further acknowledges that in order for TETRA TECH to properly provide the services contracted for in the Contract, TETRA TECH has relied upon the Client with respect to both the full disclosure and accuracy of any such information.

1.5 INFORMATION PROVIDED TO TETRA TECH BY OTHERS

During the performance of the work and the preparation of this Professional Document, TETRA TECH may have relied on information provided by persons other than the Client.

While TETRA TECH endeavours to verify the accuracy of such information, TETRA TECH accepts no responsibility for the accuracy or the reliability of such information even where inaccurate or unreliable information impacts any recommendations, design or other deliverables and causes the Client or an Authorized Party loss or damage.

1.6 GENERAL LIMITATIONS OF DOCUMENT

This Professional Document is based solely on the conditions presented and the data available to TETRA TECH at the time the data were collected in the field or gathered from available databases.

The Client, and any Authorized Party, acknowledges that the Professional Document is based on limited data and that the conclusions, opinions, and recommendations contained in the Professional Document are the result of the application of professional judgment to such limited data.

The Professional Document is not applicable to any other sites, nor should it be relied upon for types of development other than those to which it refers. Any variation from the site conditions present, or variation in assumed conditions which might form the basis of design or recommendations as outlined in this report, at or on the development proposed as of the date of the Professional Document requires a supplementary investigation and assessment.

TETRA TECH is neither qualified to, nor is it making, any recommendations with respect to the purchase, sale, investment or development of the property, the decisions on which are the sole responsibility of the Client.

1.7 NOTIFICATION OF AUTHORITIES

In certain instances, the discovery of hazardous substances or conditions and materials may require that regulatory agencies and other persons be informed and the client agrees that notification to such bodies or persons as required may be done by TETRA TECH in its reasonably exercised discretion.

APPENDIX B

SITE PHOTOGRAPHS

Photos 1 to 63

Photo 1: Drive-point piezometer installation - monitoring location MS-HWB-GW2, facing east . September 19, 2021

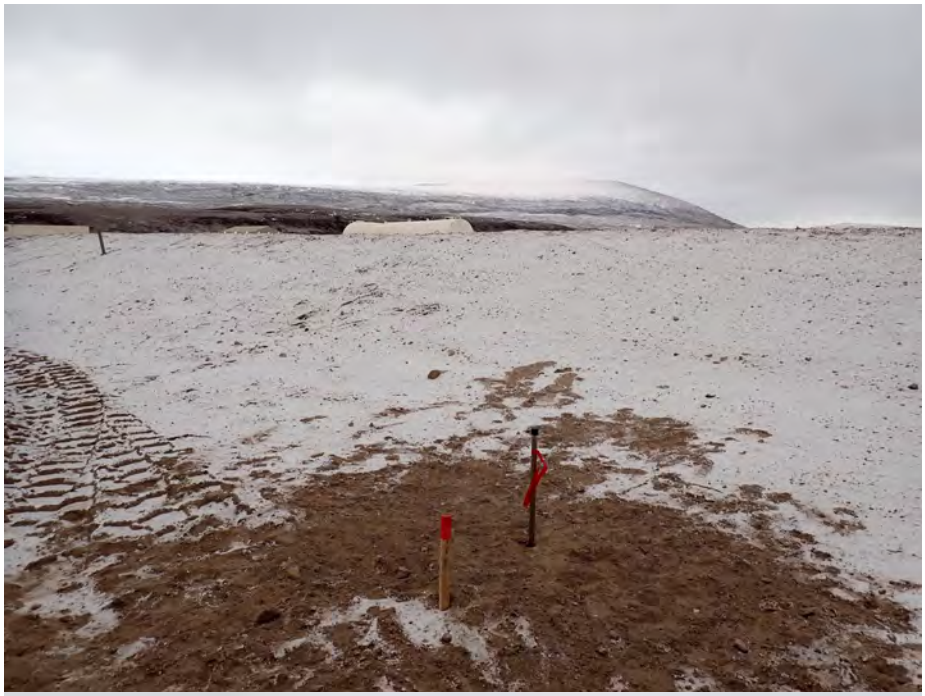

Photo 2: Drive-point piezometer installation - monitoring location MS-HWB-GW3, facing northeast. September 19, 2021

Photo 3: Drive-point piezometer installation - monitoring location MS-HWB-GW4, facing east -southeast. September 19, 2021

Photo 4: Drive-point piezometer installation - monitoring location MS-HWB-GW5, facing south. September 19, 2021

Photo 5: Drive-point piezometer installation - monitoring location MS-HWB-GW6, facing west. September 19, 2021

Photo 6: Drive-point piezometer installation - monitoring location MS-HWB-REF2. September 19, 2021

Photo 7: Drive-point piezometer installation - monitoring location MS-HWB-GW-REF3, facing northwest. September 19, 2021

Photo 8: Monitoring equipment set up. September 20, 2021

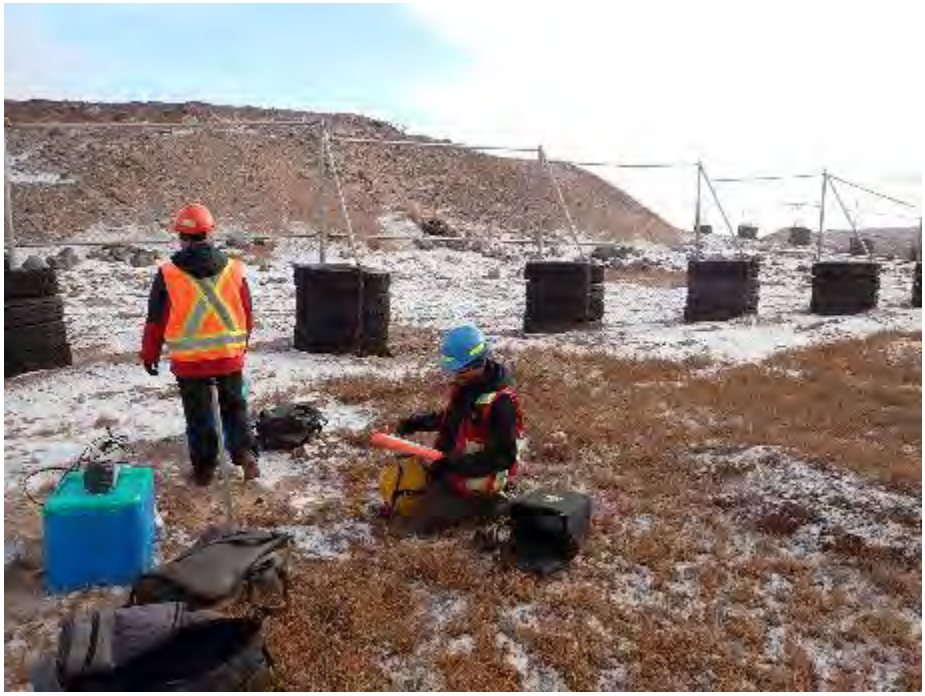

Photo 9: Monitoring location MS-LF-GW3, facing east. September 20, 2021

Photo 10: Installation of drive-point piezometer at monitoring location MS-HWB-GW8, facing southeast. September 22, 2021

Photo 11: Attempted installation of drive-point piezometer at monitoring location MS-HWB-GW8, facing northwest. September 22, 2021

Photo 12: Monitoring location MS-HWB-GW7, facing south. September 22, 2021

Photo 13: Site Reconnaissance: MS-WRF-TP1. September 23, 2021

Photo 14: Site Reconnaissance: MS-WRF-TP1, facing north. September 23, 2021

Photo 15: Site Reconnaissance: MS-WRF-TP1. September 25, 2021

Photo 16: Showing subsurface material at monitoring location MS-WRF-TP1, September 25, 2021

Photo 17: Showing subsurface material at monitoring location MS-WRF-TP1. September 25, 2021

Photo 18: Site Reconnaissance: MS-WRF-TP2, facing south. September 23, 2021

Photo 19: Site Reconnaissance: MS-WRF-TP2, facing south. September 23, 2021

Photo 20: Site Reconnaissance: MS-WRF-TP2. September 25, 2021

Photo 21: Site Reconnaissance: Showing subsurface material MS-WRF-TP2. September 25, 2021

Photo 22: Site Reconnaissance: MS-WRF-TP2, facing south. September 25, 2021

Photo 23: Monitoring location MS-HWB-GW3, facing south. September 26, 2021

Photo 24: Monitoring location MS-HWB-GW3, facing south. September 26, 2021

Photo 25: Monitoring location MS-HWB-GW4, facing south. September 26, 2021

Photo 26: Monitoring location MS-HWB-GW4, facing northeast. September 26, 2021

Photo 27: Hazardous material located within berm. September 26, 2021

Photo 28: Monitoring location MS-HWB-GW5, facing north. September 26, 2021

Photo 29: Monitoring location MS-HWB-GW5, facing south. September 26, 2021

Photo 30: Monitoring location MS-HWB-GW6, facing southwest. September 26, 2021

Photo 31: Monitoring location MS-HWB-GW6, facing northwest. September 26, 2021

Photo 32: Monitoring location MS-HWB-GW7, facing west. September 26, 2021

Photo 33: Monitoring location MS-HWB-GW7, facing northest. September 26, 2021

Photo 34: A water collection berm located at close proximity to MS-HWB-GW7, facing northwest. September 26, 2021

Photo 35: Monitoring location MS-HWB-GW-REF1, facing north. September 26, 2021

Photo 36: Monitoring location MS-HWB-GW-REF1, facing west. September 26, 2021

Photo 37: Storage of seacans and steel drums at close proximity to MS-HWB-GW-REF1. September 26, 2021

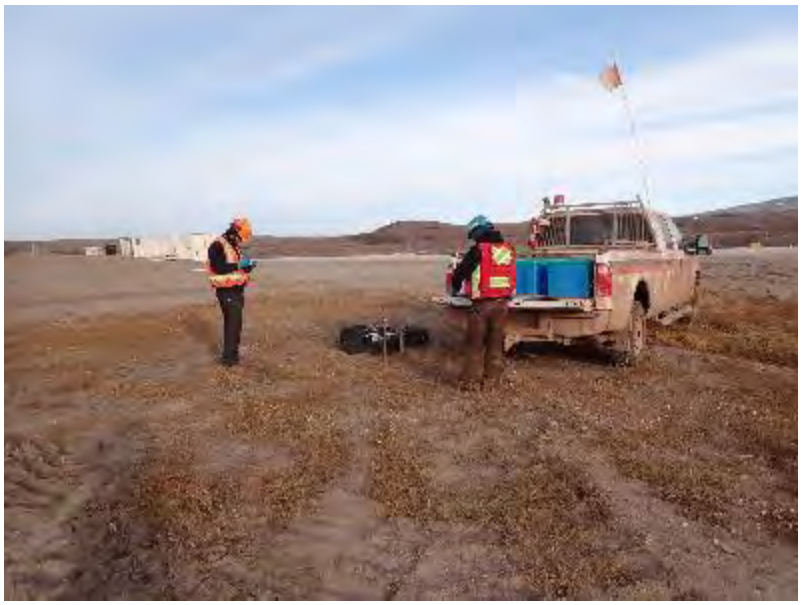

Photo 38: Monitoring location MS-HWB-GW-REF2, facing west. September 26, 2021

Photo 39: Monitoring location MS-HWB-GW-REF2, facing south. September 26, 2021

Photo 40: Monitoring location MS-HWB-GW-REF3, facing southwest. September 26, 2021

Photo 41: Monitoring location MS-HWB-GW-REF3, facing west. September 26, 2021

Photo 42: Site Reconnaissance at Airport Fuel Storage Berm, facing west. September 27, 2021

Photo 43: Site Reconnaissance at Crusher Area Berm, facing east. September 27, 2021

Photo 44: Site Reconnaissance at Crusher Area Berm, facing south. September 27, 2021

Photo 45: Site Reconnaissance at Crusher Area Berm, facing northwest. September 27, 2021

Photo 46: Site Reconnaissance at Crusher Area Berm, facing southwest. September 27, 2021

Photo 47: Site Reconnaissance at Dino East and Dino West Snow Stockpile. September 27, 2021

Photo 48: Site Reconnaissance at Fuel Farm MS03. September 27, 2021

Photo 49: Site Reconnaissance at Fuel Farm MS03. September 27, 2021

Photo 50: Site Reconnaissance at Fuel Farm MS03, facing south. September 27, 2021

Photo 51: Site Reconnaissance at Fuel Farm MS03, facing west. September 27, 2021

Photo 52: Site Reconnaissance at Fuel Farm MS03B. September 27, 2021

Photo 53: Site Reconnaissance at Fuel Farm MS03B showing pipe infrastructure. September 27, 2021

Photo 54: Site Reconnaissance at Fuel Farm MS03B, facing east. September 27, 2021

Photo 55: Site Reconnaissance at Fuel Farm MS03B, facing northeast. September 27, 2021

Photo 56: Site Reconnaissance at Fuel Farm MS03B, facing west. September 27, 2021

Photo 57: Site Reconnaissance at Fuel Farm MS03B, showing PHC staining on the surface. September 27, 2021

Photo 58: Site Reconnaissance at Fuel Farm MS03B, showing staining on the surface in fueling locations. September 27, 2021

Photo 59: Site Reconnaissance at PWSP Polishing Waste Settling Ponds, facing west. September 27, 2021

Photo 60: Site Reconnaissance at PWSP Polishing Waste Settling Ponds, facing northwest. September 27, 2021

Photo 61: Site Reconnaissance at Warehouse Snow Stockpile. September 27, 2021

Photo 62: Site Reconnaissance at Warehouse Snow Stockpile, facing northwest. September 27, 2021

Photo 63: Site Reconnaissance at Warehouse Snow Stockpile, facing west. September 27, 2021

APPENDIX C

LABORATORY ANALYTICAL REPORT

Baffinland Iron Mine's Corporation
(Oakville)
ATTN: Connor Devereaux/Kendra Button
2275 Upper Middle Rd. E.
Suite #300
Oakville ON L6H 0C3

Date Received: 21-SEP-21
Report Date: 06-OCT-21 14:16 (MT)
Version: FINAL

Client Phone: 647-253-0596

Certificate of Analysis

Lab Work Order #: L2642226

Project P.O. #: 4500090295
Job Reference: LANDFILL GROUNDWATER
C of C Numbers:
Legal Site Desc:

Rick Hawthorne
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2642226-1 MS-LF-GW1_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:40 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	3400		1.0	umhos/cm		02-OCT-21	R5608401
pH	6.99		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	6.5		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	2870		10	mg/L		22-SEP-21	R5599907
Turbidity	2.13		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	500		1.0	mg/L		02-OCT-21	R5608401
Ammonia, Total (as N)	9.03	DLHC	0.50	mg/L		05-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	340		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	12.5	DLHC	0.25	mg/L	04-OCT-21	05-OCT-21	R5607384
Phosphorus, Total	0.109		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	1190		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				20-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	28.6	DLM	2.5	mg/L	20-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	30.3		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	<0.050	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.0017	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0657	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	6.92	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.000259	DLHC	0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	577	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.00019	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.0179	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.0148	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.22	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.00242	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.548	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	77.8	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	6.68	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609161
Molybdenum (Mo)-Total	0.00890	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.185	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2642226-1 MS-LF-GW1_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:40 Matrix: JS/MD/SA							
Total Metals							
Potassium (K)-Total	26.6	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0222	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.6	DLHC	1.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	67.8	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	1.54	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	393	DLHC	5.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.00028	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	<0.0030	DLHC	0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.0668	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.030	DLHC	0.030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609784
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.050	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.0017	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0654	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	6.97	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.000194	DLHC	0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	596	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	0.00018	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.0189	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.0131	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.20	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	0.00226	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.573	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	81.8	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	7.13	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611020
Molybdenum (Mo)-Dissolved	0.00925	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2642226-1 MS-LF-GW1_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:40 Matrix: JS/MD/SA							
Dissolved Metals							
Nickel (Ni)-Dissolved	0.192	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.50	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	27.9	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0230	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	6.80	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	72.3	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	1.57	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	449	DLHC	5.0	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.00028	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.0030	DLHC	0.0030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.0716	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	0.66		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	0.63		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	100.4		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	93.3		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	91.9		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	100.3		60-140	%		04-OCT-21	R5607193
L2642226-2 MS-LF-GW2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15							

* 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
L2642226-2 MS-LF-GW2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	2400		1.0	umhos/cm		02-OCT-21	R5608654
pH	6.94		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	36.5		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	1910		10	mg/L		22-SEP-21	R5599907
Turbidity	2.65		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	388		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	5.26	DLHC	0.20	mg/L		05-OCT-21	R5608036
Bromide (Br)	<0.50	DLDS	0.50	mg/L		04-OCT-21	R5608304
Chloride (Cl)	85.2	DLDS	2.5	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.10	DLDS	0.10	mg/L		04-OCT-21	R5608304
Nitrate (as N)	4.26	DLDS	0.10	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	6.94	DLHC	0.25	mg/L	04-OCT-21	05-OCT-21	R5607384
Phosphorus, Total	0.152		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	1020	DLDS	1.5	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				20-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	21.4	DLM	2.5	mg/L	20-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	21.6		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	2.77	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.0017	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0601	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	5.88	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.000302	DLHC	0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	318	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.00056	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.0295	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.0158	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.0220	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	5.66	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.00301	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.155	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	112	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	2.15	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609161
Molybdenum (Mo)-Total	0.00344	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.182	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2642226-2 MS-LF-GW2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Total Metals							
Potassium (K)-Total	29.1	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0270	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	10.9	DLHC	1.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	84.2	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.505	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	335	DLHC	5.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.00021	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.220	DLHC	0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.0530	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.0092	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.030	DLHC	0.030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.0022	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609784
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.050	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0365	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	5.57	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.000220	DLHC	0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	316	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.0104	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.0128	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.10	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.141	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	100	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	1.91	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611020
Molybdenum (Mo)-Dissolved	0.00294	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2642226-2 MS-LF-GW2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Dissolved Metals							
Nickel (Ni)-Dissolved	0.141	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.50	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	26.3	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0220	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	5.04	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	80.7	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.476	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	349	DLHC	5.0	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.00017	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.0030	DLHC	0.0030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.0520	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5607671
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5607671
Toluene	<0.50		0.50	ug/L		05-OCT-21	R5607671
o-Xylene	<0.50		0.50	ug/L		05-OCT-21	R5607671
m+p-Xylenes	<1.0		1.0	ug/L		05-OCT-21	R5607671
Surrogate: 4-Bromofluorobenzene	99.7		50-150	%		05-OCT-21	R5607671
Surrogate: 1,4-Difluorobenzene	92.9		50-150	%		05-OCT-21	R5607671
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5607671
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	93.2		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	97.3		60-140	%		05-OCT-21	R5607671
L2642226-3 MS-LF-GW201_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15							

* 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
L2642226-3 MS-LF-GW201_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	2380		1.0	umhos/cm		02-OCT-21	R5608401
pH	6.95		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	40.0		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	1970		10	mg/L		22-SEP-21	R5599907
Turbidity	2.72		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	386		1.0	mg/L		02-OCT-21	R5608401
Ammonia, Total (as N)	4.57	DLHC	0.20	mg/L		05-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	84.8		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.049		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	4.26		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	7.65	DLHC	0.25	mg/L	04-OCT-21	05-OCT-21	R5607384
Phosphorus, Total	0.157		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	972		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				20-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	20.8	DLM	2.5	mg/L	20-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	21.6		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	0.419	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.0012	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0442	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	6.22	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.000257	DLHC	0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	324	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.00015	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.0114	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.0157	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.81	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.00073	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.155	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	103	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	2.03	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	0.0000076		0.0000050	mg/L		05-OCT-21	R5609161
Molybdenum (Mo)-Total	0.00306	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.153	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2642226-3 MS-LF-GW201_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Total Metals							
Potassium (K)-Total	28.3	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0243	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.1	DLHC	1.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	86.0	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.465	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	331	DLHC	5.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.00018	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0269	DLHC	0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.0530	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.030	DLHC	0.030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609784
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.050	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0393	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	5.87	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.000231	DLHC	0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	310	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.0110	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.0138	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.10	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.141	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	102	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	2.01	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611020
Molybdenum (Mo)-Dissolved	0.00313	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2642226-3 MS-LF-GW201_2021-09-20 Sampled By: Water on 20-SEP-21 @ 13:15 Matrix: JS/MD/SA							
Dissolved Metals							
Nickel (Ni)-Dissolved	0.157	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.50	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	27.4	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0231	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	5.22	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	85.5	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.476	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	356	DLHC	5.0	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.00017	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.0030	DLHC	0.0030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.0537	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5607671
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5607671
Toluene	<0.50		0.50	ug/L		05-OCT-21	R5607671
o-Xylene	<0.50		0.50	ug/L		05-OCT-21	R5607671
m+p-Xylenes	<1.0		1.0	ug/L		05-OCT-21	R5607671
Surrogate: 4-Bromofluorobenzene	99.4		50-150	%		05-OCT-21	R5607671
Surrogate: 1,4-Difluorobenzene	92.5		50-150	%		05-OCT-21	R5607671
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5607671
Surrogate: 3,4-Dichlorotoluene	101.9		60-140	%		05-OCT-21	R5607671
L2642226-4 MS-LF-GW-REF2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	485		1.0	umhos/cm		02-OCT-21	R5608401
pH	7.89		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	124		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	340		10	mg/L		22-SEP-21	R5599907
Turbidity	32.2		0.10	NTU		22-SEP-21	R5599881

* 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
L2642226-4 MS-LF-GW-REF2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Physical Tests							
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	194		1.0	mg/L		02-OCT-21	R5608401
Ammonia, Total (as N)	0.013		0.010	mg/L		05-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	8.13		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.029		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	0.804		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.330		0.050	mg/L	04-OCT-21	04-OCT-21	R5607384
Phosphorus, Total	0.0456		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	80.1		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				20-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	4.48		0.50	mg/L	20-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	5.88		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	0.199	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0369	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.52	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	<0.000050	DLHC	0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	42.5	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	<0.00010	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.34	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	<0.010	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	37.0	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0065	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0077	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	1.67	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0079	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	5.4	DLHC	1.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2642226-4 MS-LF-GW-REF2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Total Metals							
Sodium (Na)-Total	4.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.023	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	23.6	DLHC	5.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	<0.00010	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0122	DLHC	0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00241	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.030	DLHC	0.030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.050	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0350	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.50	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.000050	DLHC	0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	39.6	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.0039	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.10	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	35.5	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0057	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.50	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	1.51	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0059	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2642226-4 MS-LF-GW-REF2_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Dissolved Metals							
Silicon (Si)-Dissolved	4.67	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	4.35	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.022	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	28.2	DLHC	5.0	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.0030	DLHC	0.0030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00227	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	<0.50		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	<0.50		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	99.8		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	92.5		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	89.0		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	111.5		60-140	%		04-OCT-21	R5607193
L2642226-5 MS-LF-GW-REF202_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	1.3		1.0	umhos/cm		02-OCT-21	R5608401
pH	5.78		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	2.0		2.0	mg/L		22-SEP-21	R5599883

* 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
L2642226-5 MS-LF-GW-REF202_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Physical Tests							
Total Dissolved Solids	45		10	mg/L		22-SEP-21	R5599907
Turbidity	<0.10		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		02-OCT-21	R5608401
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	<0.50		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5607384
Phosphorus, Total	<0.0030		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	<0.30		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				20-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	0.62		0.50	mg/L	20-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	<0.50		0.50	mg/L		05-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Arsenic (As)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Barium (Ba)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Calcium (Ca)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Copper (Cu)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Iron (Fe)-Total	<0.010		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Lead (Pb)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Lithium (Li)-Total	<0.0010		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181
Magnesium (Mg)-Total	<0.0050		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Manganese (Mn)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Potassium (K)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Selenium (Se)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181

* 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
L2642226-5 MS-LF-GW-REF202_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Total Metals							
Silicon (Si)-Total	<0.10		0.10	mg/L	03-OCT-21	05-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Sodium (Na)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181
Sulfur (S)-Total	<0.50		0.50	mg/L	03-OCT-21	05-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	03-OCT-21	05-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Uranium (U)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	05-OCT-21	R5607181
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Potassium (K)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118

* 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
L2642226-5 MS-LF-GW-REF202_2021-09-20 Sampled By: Water on 20-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Dissolved Metals							
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-OCT-21	05-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	05-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	<0.50		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	<0.50		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	98.5		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	92.9		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
Surrogate: 3,4-Dichlorotoluene	115.2		60-140	%		04-OCT-21	R5607193
L2642226-6 MS-LF-GW-REF1_2021-09-21 Sampled By: Water on 21-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	470		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.66		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	15.5		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	279		10	mg/L		22-SEP-21	R5599907
Turbidity	6.67		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	261		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.019		0.010	mg/L		04-OCT-21	R5608036

* 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
L2642226-6 MS-LF-GW-REF1_2021-09-21 Sampled By: Water on 21-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Anions and Nutrients							
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	5.16		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.041		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	0.540		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.240		0.050	mg/L	04-OCT-21	04-OCT-21	R5607384
Phosphorus, Total	0.0315		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	21.1		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				21-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	2.83		0.50	mg/L	21-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	3.65		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	0.184		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Arsenic (As)-Total	0.00017		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Barium (Ba)-Total	0.0212		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Boron (B)-Total	0.071		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Calcium (Ca)-Total	46.5		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cesium (Cs)-Total	0.000034		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Chromium (Cr)-Total	0.00092		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cobalt (Co)-Total	0.00023		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Copper (Cu)-Total	0.00232		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Iron (Fe)-Total	0.238		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Lead (Pb)-Total	0.000723		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Lithium (Li)-Total	0.0029		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181
Magnesium (Mg)-Total	25.1		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Manganese (Mn)-Total	0.00818		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000839		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Nickel (Ni)-Total	0.00414		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Potassium (K)-Total	1.78		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Rubidium (Rb)-Total	0.00304		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Selenium (Se)-Total	0.000088		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Silicon (Si)-Total	2.20		0.10	mg/L	03-OCT-21	05-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Sodium (Na)-Total	12.6		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Strontium (Sr)-Total	0.0460		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181

* 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
L2642226-6 MS-LF-GW-REF1_2021-09-21 Sampled By: Water on 21-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Total Metals							
Sulfur (S)-Total	7.15		0.50	mg/L	03-OCT-21	05-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Thallium (Tl)-Total	0.000017		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Thorium (Th)-Total	0.00020		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Titanium (Ti)-Total	0.0108		0.00030	mg/L	03-OCT-21	05-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Uranium (U)-Total	0.00618		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Vanadium (V)-Total	0.00062		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Zinc (Zn)-Total	0.0117		0.0030	mg/L	03-OCT-21	05-OCT-21	R5607181
Zirconium (Zr)-Total	0.00055		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0204		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Boron (B)-Dissolved	0.070		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Calcium (Ca)-Dissolved	47.3		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00159		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0030		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Magnesium (Mg)-Dissolved	25.7		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.00206		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000868		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.00195		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Potassium (K)-Dissolved	1.81		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00250		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000087		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silicon (Si)-Dissolved	1.89		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118

* 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
L2642226-6 MS-LF-GW-REF1_2021-09-21 Sampled By: Water on 21-SEP-21 @ 15:10 Matrix: JS/MD/SA							
Dissolved Metals							
Sodium (Na)-Dissolved	12.7		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.0452		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Sulfur (S)-Dissolved	7.06		0.50	mg/L	04-OCT-21	05-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	05-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Uranium (U)-Dissolved	0.00585		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00035		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	<0.50		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	<0.50		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	98.7		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	92.5		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	86.3		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	109.4		60-140	%		04-OCT-21	R5607193
L2642226-7 MS-LF-GW3_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	897		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.16		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	26.0		2.0	mg/L		22-SEP-21	R5599883
Total Dissolved Solids	597		10	mg/L		22-SEP-21	R5599907
Turbidity	12.5		0.10	NTU		22-SEP-21	R5599881

* 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
L2642226-7 MS-LF-GW3_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Physical Tests							
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	240		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	70.4		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.025		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	2.73		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.490		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0332		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	165		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				21-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	4.34		0.50	mg/L	21-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	5.03		0.50	mg/L		04-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	0.314	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0542	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	1.43	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	<0.000050	DLHC	0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	80.8	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.00013	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.74	DLHC	0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.00108	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.021	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	62.7	DLHC	0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0172	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.00058	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0239	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.50	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	2.84	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0124	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.1	DLHC	1.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.00050	DLHC	0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2642226-7 MS-LF-GW3_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Total Metals							
Sodium (Na)-Total	15.0	DLHC	0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.042	DLHC	0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	50.9	DLHC	5.0	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	<0.00010	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0191	DLHC	0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.0010	DLHC	0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00801	DLHC	0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.0050	DLHC	0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.030	DLHC	0.030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.0020	DLHC	0.0020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.050	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0488	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	1.34	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.000050	DLHC	0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	78.3	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.0028	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.10	DLHC	0.10	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.019	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	59.8	DLHC	0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.00058	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0203	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.50	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	2.61	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0115	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2642226-7 MS-LF-GW3_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Dissolved Metals							
Silicon (Si)-Dissolved	5.18	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.00050	DLHC	0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	14.5	DLHC	0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.042	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	57.8	DLHC	5.0	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.00010	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.0030	DLHC	0.0030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.0010	DLHC	0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00786	DLHC	0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.0050	DLHC	0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.010	DLHC	0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.0020	DLHC	0.0020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5609700
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	<0.50		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	<0.50		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	98.9		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	92.5		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	86.0		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	106.6		60-140	%		04-OCT-21	R5607193
L2642226-8 MS-LF-GW304_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Physical Tests							
Conductivity	1.5		1.0	umhos/cm		02-OCT-21	R5608654
pH	5.80		0.10	pH units		22-SEP-21	R5599879
Total Suspended Solids	<2.0		2.0	mg/L		22-SEP-21	R5599883

* 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
L2642226-8 MS-LF-GW304_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Physical Tests							
Total Dissolved Solids	36		10	mg/L		22-SEP-21	R5599907
Turbidity	<0.10		0.10	NTU		22-SEP-21	R5599881
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	<0.50		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0033		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	<0.30		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				21-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	0.73		0.50	mg/L	21-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	0.81		0.50	mg/L		05-OCT-21	R5610481
Total Metals							
Aluminum (Al)-Total	0.0110		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Arsenic (As)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Barium (Ba)-Total	0.00014		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Calcium (Ca)-Total	0.067		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Copper (Cu)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Iron (Fe)-Total	0.017		0.010	mg/L	03-OCT-21	05-OCT-21	R5607181
Lead (Pb)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Lithium (Li)-Total	<0.0010		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181
Magnesium (Mg)-Total	0.0497		0.0050	mg/L	03-OCT-21	05-OCT-21	R5607181
Manganese (Mn)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Potassium (K)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Selenium (Se)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181

* 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
L2642226-8 MS-LF-GW304_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Total Metals							
Silicon (Si)-Total	<0.10		0.10	mg/L	03-OCT-21	05-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	05-OCT-21	R5607181
Sodium (Na)-Total	<0.050		0.050	mg/L	03-OCT-21	05-OCT-21	R5607181
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	03-OCT-21	05-OCT-21	R5607181
Sulfur (S)-Total	<0.50		0.50	mg/L	03-OCT-21	05-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Tin (Sn)-Total	0.00036	DTC	0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Titanium (Ti)-Total	0.00074		0.00030	mg/L	03-OCT-21	05-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	05-OCT-21	R5607181
Uranium (U)-Total	<0.000010		0.000010	mg/L	03-OCT-21	05-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	05-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	05-OCT-21	R5607181
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	03-OCT-21	05-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00032		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	05-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Magnesium (Mg)-Dissolved	0.0112		0.0050	mg/L	04-OCT-21	05-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Potassium (K)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118

* 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
L2642226-8 MS-LF-GW304_2021-09-21 Sampled By: Water on 21-SEP-21 @ 17:00 Matrix: JS/MD/SA							
Dissolved Metals							
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5608118
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-OCT-21	05-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Tin (Sn)-Dissolved	0.00135		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	05-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	05-OCT-21	R5608118
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	05-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	05-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	05-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	05-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	05-OCT-21	05-OCT-21	R5610045
Volatile Organic Compounds							
Benzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Ethylbenzene	<0.50		0.50	ug/L		04-OCT-21	R5607193
Toluene	<0.50		0.50	ug/L		04-OCT-21	R5607193
o-Xylene	<0.50		0.50	ug/L		04-OCT-21	R5607193
m+p-Xylenes	<1.0		1.0	ug/L		04-OCT-21	R5607193
Surrogate: 4-Bromofluorobenzene	97.8		50-150	%		04-OCT-21	R5607193
Surrogate: 1,4-Difluorobenzene	92.2		50-150	%		04-OCT-21	R5607193
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		04-OCT-21	R5607193
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5611502
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5611502
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5611502
Surrogate: 2-Bromobenzotrifluoride	89.2		60-140	%	04-OCT-21	06-OCT-21	R5611502
Surrogate: 3,4-Dichlorotoluene	111.4		60-140	%		04-OCT-21	R5607193

* 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	Silver (Ag)-Dissolved	MES	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Dissolved Organic Carbon	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Boron (B)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Cobalt (Co)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Copper (Cu)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Lithium (Li)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Nickel (Ni)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Potassium (K)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Rubidium (Rb)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Uranium (U)-Dissolved	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Aluminum (Al)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Barium (Ba)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Boron (B)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Calcium (Ca)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Chromium (Cr)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Cobalt (Co)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Copper (Cu)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Iron (Fe)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Lithium (Li)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Manganese (Mn)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Nickel (Ni)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Potassium (K)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Rubidium (Rb)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Silicon (Si)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sodium (Na)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Strontium (Sr)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Sulfur (S)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Titanium (Ti)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Uranium (U)-Total	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7, -8
Matrix Spike	Ammonia, Total (as N)	MS-B	L2642226-1, -2, -3, -4, -5, -6, -7
Matrix Spike	Ammonia, Total (as N)	MS-B	L2642226-8

Sample Parameter Qualifier key listed:

Qualifier	Description
DLDS	Detection Limit Raised: Dilution required due to high Dissolved Solids / Electrical Conductivity.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
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.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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**
ALK-WT	Water	Alkalinity, Total (as CaCO3)	APHA 2320B

Reference Information

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.

BR-IC-N-WT	Water	Bromide in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

BTX-HS-WT	Water	BTEX by Headspace	SW846 8260 (HEADSPACE)

BTX is determined by analyzing by headspace-GC/MS.

CL-IC-N-WT	Water	Chloride by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

DOC-WT	Water	Dissolved Organic Carbon	APHA 5310B

Sample is filtered through a 0.45um filter, then injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic carbon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

EC-WT	Water	Conductivity	APHA 2510 B

Water samples can be measured directly by immersing the conductivity cell into the sample.

F-IC-N-WT	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

F1-F4-CALC-WT	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-WT	Water	F1 (O.Reg.153/04)	E3421/CCME (HS)

Fraction F1 is determined by analyzing by headspace-GC/FID.

F2-F4-WT	Water	F2-F4 (O.Reg.153/04)	MOE DECPH-E3421/CCME TIER 1

Petroleum Hydrocarbons (F2-F4 fractions) are extracted from water using a hexane micro-extraction technique. Instrumental analysis is by GC-FID, as per the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Tier 1 Method, CCME, 2001.

HG-D-CVAA-WT	Water	Dissolved Mercury in Water by CVAAS	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 CVAAS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental

Reference Information

Protection Act (July 1, 2011).

HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

MET-D-CCMS-WT	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.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-T-CCMS-WT	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.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

NH3-F-WT	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NO3-IC-N-WT	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

The procedure involves an extraction of the entire water sample with hexane. This extract is then evaporated to dryness, and the residue weighed to determine Oil and Grease.

P-T-COL-WT	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is deteremined colourimetrically after persulphate digestion of the sample.

PH-BF	Water	pH	APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

SO4-IC-N-WT	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

SOLIDS-TDS-BF	Water	Total Dissolved Solids	APHA 2540C

A well-mixed sample is filtered though glass fibres filter. A known volume of the filtrate is evaporated and dried at 180 +/- 2C for 1hr.

SOLIDS-TSS-BF	Water	Suspended solids	APHA 2540 D-Gravimetric

A well-mixed sample is filtered through a weighed standard glass fibre filter and the residue retained is dried in an oven at 104 +/- 1C for a minimum of four hours or until a constant weight is achieved.

TKN-F-WT	Water	TKN in Water by Fluorescence	J. ENVIRON. MONIT., 2005,7,37-42,RSC

Total Kjeldahl Nitrogen is determined using block digestion followed by Flow-injection analysis with fluorescence detection

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

TURBIDITY-BF	Water	Turbidity	APHA 2130 B

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

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

Reference Information

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
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
BF	ALS ENVIRONMENTAL - BAFFIN ISLAND, NUNAVUT, 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: L2642226 Report Date: 06-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-WT	**Water**							
Batch R5608401								
WG3629987-4 DUP		**WG3629987-3**						
Alkalinity, Total (as CaCO3)		31.6	31.4		mg/L	0.4	20	02-OCT-21
WG3629987-2 LCS								
Alkalinity, Total (as CaCO3)			113.7		%		85-115	02-OCT-21
WG3629987-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	02-OCT-21
Batch R5608654								
WG3629996-4 DUP		**WG3629996-3**						
Alkalinity, Total (as CaCO3)		314	317		mg/L	0.9	20	02-OCT-21
WG3629996-2 LCS								
Alkalinity, Total (as CaCO3)			113.6		%		85-115	02-OCT-21
BR-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	04-OCT-21
WG3630911-2 LCS								
Bromide (Br)			101.1		%		85-115	04-OCT-21
WG3630911-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Bromide (Br)			102.9		%		75-125	04-OCT-21
BTX-HS-WT	**Water**							
Batch R5607193								
WG3630420-4 DUP		**WG3630420-3**						
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-OCT-21
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-OCT-21
m+p-Xylenes		<1.0	<1.0	RPD-NA	ug/L	N/A	30	04-OCT-21
o-Xylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-OCT-21
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	04-OCT-21
WG3630420-1 LCS								
Benzene			93.9		%		70-130	04-OCT-21
Ethylbenzene			81.2		%		70-130	04-OCT-21
m+p-Xylenes			77.8		%		70-130	04-OCT-21
o-Xylene			80.1		%		70-130	04-OCT-21
Toluene			89.1		%		70-130	04-OCT-21
WG3630420-2 MB								
							0.5	

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-HS-WT	**Water**							
Batch R5607193								
WG3630420-2 MB								
Benzene			<0.50		ug/L		0.5	04-OCT-21
Ethylbenzene			<0.50		ug/L		0.5	04-OCT-21
m+p-Xylenes			<1.0		ug/L		1	04-OCT-21
o-Xylene			<0.50		ug/L		0.5	04-OCT-21
Toluene			<0.50		ug/L		0.5	04-OCT-21
Surrogate: 1,4-Difluorobenzene			92.2		%		50-150	04-OCT-21
Surrogate: 4-Bromofluorobenzene			97.6		%		50-150	04-OCT-21
WG3630420-5 MS		**WG3630420-3**						
Benzene			92.5		%		50-150	04-OCT-21
Ethylbenzene			79.8		%		50-150	04-OCT-21
m+p-Xylenes			82.9		%		50-150	04-OCT-21
o-Xylene			78.7		%		50-150	04-OCT-21
Toluene			87.0		%		50-150	04-OCT-21
Batch R5607671								
WG3630643-9 DUP		**WG3630643-8**						
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
m+p-Xylenes		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
o-Xylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
WG3630643-6 LCS								
Benzene			90.5		%		70-130	05-OCT-21
Ethylbenzene			86.4		%		70-130	05-OCT-21
m+p-Xylenes			86.7		%		70-130	05-OCT-21
o-Xylene			83.5		%		70-130	05-OCT-21
Toluene			91.3		%		70-130	05-OCT-21
WG3630643-7 MB								
Benzene			<0.50		ug/L		0.5	05-OCT-21
Ethylbenzene			<0.50		ug/L		0.5	05-OCT-21
m+p-Xylenes			<1.0		ug/L		1	05-OCT-21
o-Xylene			<0.50		ug/L		0.5	05-OCT-21
Toluene			<0.50		ug/L		0.5	05-OCT-21
Surrogate: 1,4-Difluorobenzene			92.9		%		50-150	05-OCT-21
Surrogate: 4-Bromofluorobenzene			100.5		%		50-150	05-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-HS-WT	**Water**							
Batch R5607671								
WG3630643-10 MS		**WG3630643-8**						
Benzene			87.7		%		50-150	05-OCT-21
Ethylbenzene			84.9		%		50-150	05-OCT-21
m+p-Xylenes			86.1		%		50-150	05-OCT-21
o-Xylene			82.1		%		50-150	05-OCT-21
Toluene			89.2		%		50-150	05-OCT-21
CL-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Chloride (Cl)		5.16	5.14		mg/L	0.4	20	04-OCT-21
WG3630911-2 LCS								
Chloride (Cl)			100.4		%		90-110	04-OCT-21
WG3630911-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Chloride (Cl)			101.4		%		75-125	04-OCT-21
DOC-WT	**Water**							
Batch R5607080								
WG3629762-3 DUP		**WG3629762-5**						
Dissolved Organic Carbon		28.6	29.8		mg/L	4.0	20	02-OCT-21
WG3629762-2 LCS								
Dissolved Organic Carbon			100.2		%		80-120	02-OCT-21
WG3629762-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	02-OCT-21
WG3629762-4 MS		**WG3629762-5**						
Dissolved Organic Carbon			N/A	MS-B	%		-	02-OCT-21
EC-WT	**Water**							
Batch R5608401								
WG3629987-4 DUP		**WG3629987-3**						
Conductivity		103	102		umhos/cm	0.6	10	02-OCT-21
WG3629987-2 LCS								
Conductivity			98.0		%		90-110	02-OCT-21
WG3629987-1 MB								
Conductivity			<2.0		umhos/cm		2	02-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WT	**Water**							
Batch R5608654								
WG3629996-4 DUP		**WG3629996-3**						
Conductivity		1120	1100		umhos/cm	1.3	10	02-OCT-21
WG3629996-2 LCS								
Conductivity			100.2		%		90-110	02-OCT-21
WG3629996-1 MB								
Conductivity			<2.0		umhos/cm		2	04-OCT-21
F-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Fluoride (F)		0.041	0.040		mg/L	2.5	20	04-OCT-21
WG3630911-2 LCS								
Fluoride (F)			100.9		%		90-110	04-OCT-21
WG3630911-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Fluoride (F)			98.5		%		75-125	04-OCT-21
F1-HS-WT	**Water**							
Batch R5607193								
WG3630420-4 DUP		**WG3630420-3**						
F1 (C6-C10)		<100	<100	RPD-NA	ug/L	N/A	50	04-OCT-21
WG3630420-1 LCS								
F1 (C6-C10)			99.1		%		80-120	04-OCT-21
WG3630420-2 MB								
F1 (C6-C10)			<100		ug/L		100	04-OCT-21
Surrogate: 3,4-Dichlorotoluene			108.0		%		60-140	04-OCT-21
WG3630420-5 MS		**WG3630420-3**						
F1 (C6-C10)			88.4		%		50-150	04-OCT-21
Batch R5607671								
WG3630643-9 DUP		**WG3630643-8**						
F1 (C6-C10)		<100	<100	RPD-NA	ug/L	N/A	50	05-OCT-21
WG3630643-6 LCS								
F1 (C6-C10)			94.5		%		80-120	05-OCT-21
WG3630643-7 MB								
F1 (C6-C10)			<100		ug/L		100	05-OCT-21
Surrogate: 3,4-Dichlorotoluene			118.4		%		60-140	05-OCT-21
WG3630643-10 MS		**WG3630643-8**						
F1 (C6-C10)			96.4		%		50-150	05-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-WT	**Water**							
Batch R5611502								
WG3630524-2 LCS								
F2 (C10-C16)			98.5		%		70-130	06-OCT-21
F3 (C16-C34)			100.3		%		70-130	06-OCT-21
F4 (C34-C50)			98.1		%		70-130	06-OCT-21
WG3630524-1 MB								
F2 (C10-C16)			<100		ug/L		100	06-OCT-21
F3 (C16-C34)			<250		ug/L		250	06-OCT-21
F4 (C34-C50)			<250		ug/L		250	06-OCT-21
Surrogate: 2-Bromobenzotrifluoride			96.0		%		60-140	06-OCT-21
HG-D-CVAA-WT	**Water**							
Batch R5611020								
WG3631906-4 DUP		**WG3631906-3**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	06-OCT-21
WG3631906-2 LCS								
Mercury (Hg)-Dissolved			93.1		%		80-120	06-OCT-21
WG3631906-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	06-OCT-21
WG3631906-6 MS		**WG3631906-5**						
Mercury (Hg)-Dissolved			104.8		%		70-130	06-OCT-21
Batch R5611023								
WG3631916-3 DUP		**L2642226-4**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	06-OCT-21
WG3631916-2 LCS								
Mercury (Hg)-Dissolved			95.8		%		80-120	06-OCT-21
WG3631916-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	06-OCT-21
WG3631916-4 MS		**L2642226-5**						
Mercury (Hg)-Dissolved			109.0		%		70-130	06-OCT-21
HG-T-CVAA-WT	**Water**							
Batch R5609161								
WG3631342-3 DUP		**WG3631342-5**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	05-OCT-21
WG3631342-2 LCS								
Mercury (Hg)-Total			100.0		%		80-120	05-OCT-21
WG3631342-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	05-OCT-21
WG3631342-4 MS		**WG3631342-6**						

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-T-CVAA-WT	**Water**							
Batch R5609161								
WG3631342-4 MS		**WG3631342-6**						
Mercury (Hg)-Total			110.2		%		70-130	05-OCT-21
Batch R5609164								
WG3631343-3 DUP		**L2642226-4**						
Mercury (Hg)-Total		<0.0000050	<0.000005(	RPD-NA	mg/L	N/A	20	05-OCT-21
WG3631343-2 LCS								
Mercury (Hg)-Total			83.2		%		80-120	05-OCT-21
WG3631343-1 MB								
Mercury (Hg)-Total			<0.000005(		mg/L		0.000005	05-OCT-21
WG3631343-4 MS		**L2642226-5**						
Mercury (Hg)-Total			113.0		%		70-130	05-OCT-21
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-4 DUP		**WG3630889-3**						
Aluminum (Al)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	04-OCT-21
Antimony (Sb)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Arsenic (As)-Dissolved		0.0017	0.0015		mg/L	13	20	04-OCT-21
Barium (Ba)-Dissolved		0.0654	0.0640		mg/L	2.2	20	04-OCT-21
Beryllium (Be)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Bismuth (Bi)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Boron (B)-Dissolved		6.97	7.03		mg/L	0.8	20	04-OCT-21
Cadmium (Cd)-Dissolved		0.000194	0.000176		mg/L	9.7	20	04-OCT-21
Calcium (Ca)-Dissolved		596	598		mg/L	0.5	20	04-OCT-21
Cesium (Cs)-Dissolved		0.00018	0.00019		mg/L	5.8	20	04-OCT-21
Chromium (Cr)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Cobalt (Co)-Dissolved		0.0189	0.0177		mg/L	6.6	20	04-OCT-21
Copper (Cu)-Dissolved		0.0131	0.0117		mg/L	11	20	04-OCT-21
Iron (Fe)-Dissolved		0.20	0.19		mg/L	4.9	20	04-OCT-21
Lead (Pb)-Dissolved		0.00226	0.00227		mg/L	0.3	20	04-OCT-21
Lithium (Li)-Dissolved		0.573	0.537		mg/L	6.6	20	04-OCT-21
Magnesium (Mg)-Dissolved		81.8	79.2		mg/L	3.1	20	04-OCT-21
Manganese (Mn)-Dissolved		7.13	6.71		mg/L	6.0	20	04-OCT-21
Molybdenum (Mo)-Dissolved		0.00925	0.00945		mg/L	2.1	20	04-OCT-21
Nickel (Ni)-Dissolved		0.192	0.185		mg/L	3.7	20	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
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Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-4 DUP		**WG3630889-3**						
Phosphorus (P)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	04-OCT-21
Potassium (K)-Dissolved		27.9	27.1		mg/L	3.0	20	04-OCT-21
Rubidium (Rb)-Dissolved		0.0230	0.0219		mg/L	4.8	20	04-OCT-21
Selenium (Se)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Silicon (Si)-Dissolved		6.80	6.72		mg/L	1.1	20	04-OCT-21
Silver (Ag)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Sodium (Na)-Dissolved		72.3	69.3		mg/L	4.4	20	04-OCT-21
Strontium (Sr)-Dissolved		1.57	1.57		mg/L	0.3	20	04-OCT-21
Sulfur (S)-Dissolved		449	446		mg/L	0.7	20	04-OCT-21
Tellurium (Te)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
Thallium (Tl)-Dissolved		0.00028	0.00027		mg/L	3.3	20	04-OCT-21
Thorium (Th)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Tin (Sn)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Titanium (Ti)-Dissolved		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	04-OCT-21
Tungsten (W)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Uranium (U)-Dissolved		0.0716	0.0713		mg/L	0.5	20	04-OCT-21
Vanadium (V)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Zinc (Zn)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	04-OCT-21
Zirconium (Zr)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
WG3630889-2 LCS								
Aluminum (Al)-Dissolved			86.8		%		80-120	04-OCT-21
Antimony (Sb)-Dissolved			95.5		%		80-120	04-OCT-21
Arsenic (As)-Dissolved			90.8		%		80-120	04-OCT-21
Barium (Ba)-Dissolved			87.8		%		80-120	04-OCT-21
Beryllium (Be)-Dissolved			85.4		%		80-120	04-OCT-21
Bismuth (Bi)-Dissolved			97.9		%		80-120	04-OCT-21
Boron (B)-Dissolved			86.4		%		80-120	05-OCT-21
Cadmium (Cd)-Dissolved			85.3		%		80-120	04-OCT-21
Calcium (Ca)-Dissolved			91.1		%		80-120	04-OCT-21
Cesium (Cs)-Dissolved			94.2		%		80-120	04-OCT-21
Chromium (Cr)-Dissolved			87.9		%		80-120	04-OCT-21
Cobalt (Co)-Dissolved			89.7		%		80-120	04-OCT-21
Copper (Cu)-Dissolved			88.5		%		80-120	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-2 LCS								
Iron (Fe)-Dissolved			89.2		%		80-120	04-OCT-21
Lead (Pb)-Dissolved			94.5		%		80-120	04-OCT-21
Lithium (Li)-Dissolved			81.9		%		80-120	04-OCT-21
Magnesium (Mg)-Dissolved			94.2		%		80-120	04-OCT-21
Manganese (Mn)-Dissolved			88.4		%		80-120	04-OCT-21
Molybdenum (Mo)-Dissolved			92.9		%		80-120	04-OCT-21
Nickel (Ni)-Dissolved			88.6		%		80-120	04-OCT-21
Phosphorus (P)-Dissolved			98.6		%		80-120	04-OCT-21
Potassium (K)-Dissolved			81.8		%		80-120	04-OCT-21
Rubidium (Rb)-Dissolved			92.6		%		80-120	04-OCT-21
Selenium (Se)-Dissolved			93.7		%		80-120	04-OCT-21
Silicon (Si)-Dissolved			84.2		%		60-140	04-OCT-21
Silver (Ag)-Dissolved			92.1		%		80-120	04-OCT-21
Sodium (Na)-Dissolved			93.6		%		80-120	04-OCT-21
Strontium (Sr)-Dissolved			91.2		%		80-120	04-OCT-21
Sulfur (S)-Dissolved			98.1		%		80-120	04-OCT-21
Tellurium (Te)-Dissolved			94.0		%		80-120	04-OCT-21
Thallium (Tl)-Dissolved			97.8		%		80-120	04-OCT-21
Thorium (Th)-Dissolved			96.4		%		80-120	04-OCT-21
Tin (Sn)-Dissolved			85.9		%		80-120	04-OCT-21
Titanium (Ti)-Dissolved			83.5		%		80-120	04-OCT-21
Tungsten (W)-Dissolved			88.3		%		80-120	04-OCT-21
Uranium (U)-Dissolved			95.7		%		80-120	04-OCT-21
Vanadium (V)-Dissolved			89.4		%		80-120	04-OCT-21
Zinc (Zn)-Dissolved			89.6		%		80-120	04-OCT-21
Zirconium (Zr)-Dissolved			87.8		%		80-120	04-OCT-21
WG3630889-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	04-OCT-21
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Boron (B)-Dissolved			<0.010		mg/L		0.01	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-1 MB								
Cadmium (Cd)-Dissolved			<0.000005(		mg/L		0.000005	04-OCT-21
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Chromium (Cr)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	04-OCT-21
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	04-OCT-21
Manganese (Mn)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Potassium (K)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Silver (Ag)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Strontium (Sr)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	04-OCT-21
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	04-OCT-21
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
WG3630889-5 MS		**WG3630889-3**						
Aluminum (Al)-Dissolved			81.1		%		70-130	04-OCT-21

Quality Control Report

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2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-5 MS		**WG3630889-3**						
Antimony (Sb)-Dissolved			97.6		%		70-130	04-OCT-21
Arsenic (As)-Dissolved			97.6		%		70-130	04-OCT-21
Barium (Ba)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Beryllium (Be)-Dissolved			85.8		%		70-130	04-OCT-21
Bismuth (Bi)-Dissolved			97.7		%		70-130	04-OCT-21
Boron (B)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Cadmium (Cd)-Dissolved			88.3		%		70-130	04-OCT-21
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Cesium (Cs)-Dissolved			92.4		%		70-130	04-OCT-21
Chromium (Cr)-Dissolved			85.1		%		70-130	04-OCT-21
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Copper (Cu)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Iron (Fe)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Lead (Pb)-Dissolved			87.7		%		70-130	04-OCT-21
Lithium (Li)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Phosphorus (P)-Dissolved			84.2		%		70-130	04-OCT-21
Potassium (K)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Rubidium (Rb)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Selenium (Se)-Dissolved			101.7		%		70-130	04-OCT-21
Silicon (Si)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Silver (Ag)-Dissolved			64.2	MES	%		70-130	04-OCT-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Sulfur (S)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Tellurium (Te)-Dissolved			100.0		%		70-130	04-OCT-21
Thallium (Tl)-Dissolved			100.2		%		70-130	04-OCT-21
Thorium (Th)-Dissolved			100.5		%		70-130	04-OCT-21
Tin (Sn)-Dissolved			91.7		%		70-130	04-OCT-21
Titanium (Ti)-Dissolved			89.6		%		70-130	04-OCT-21
Tungsten (W)-Dissolved			94.1		%		70-130	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-5 MS		**WG3630889-3**						
Uranium (U)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Vanadium (V)-Dissolved			96.3		%		70-130	04-OCT-21
Zinc (Zn)-Dissolved			77.8		%		70-130	04-OCT-21
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630390-4 DUP		**WG3630390-3**						
Aluminum (Al)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	04-OCT-21
Antimony (Sb)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Arsenic (As)-Total		0.0017	0.0016		mg/L	3.0	20	04-OCT-21
Barium (Ba)-Total		0.0657	0.0661		mg/L	0.6	20	04-OCT-21
Beryllium (Be)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Bismuth (Bi)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Boron (B)-Total		6.92	6.80		mg/L	1.8	20	04-OCT-21
Cadmium (Cd)-Total		0.000259	0.000256		mg/L	1.4	20	04-OCT-21
Calcium (Ca)-Total		577	580		mg/L	0.4	20	04-OCT-21
Chromium (Cr)-Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Cesium (Cs)-Total		0.00019	0.00019		mg/L	1.2	20	04-OCT-21
Cobalt (Co)-Total		0.0179	0.0181		mg/L	1.4	20	04-OCT-21
Copper (Cu)-Total		0.0148	0.0146		mg/L	1.2	20	04-OCT-21
Iron (Fe)-Total		0.22	0.22		mg/L	0.0	20	04-OCT-21
Lead (Pb)-Total		0.00242	0.00242		mg/L	0.2	20	04-OCT-21
Lithium (Li)-Total		0.548	0.540		mg/L	1.6	20	04-OCT-21
Magnesium (Mg)-Total		77.8	79.1		mg/L	1.8	20	04-OCT-21
Manganese (Mn)-Total		6.68	6.82		mg/L	2.0	20	04-OCT-21
Molybdenum (Mo)-Total		0.00890	0.00890		mg/L	0.1	20	04-OCT-21
Nickel (Ni)-Total		0.185	0.187		mg/L	0.9	20	04-OCT-21
Phosphorus (P)-Total		<0.50	<0.50	RPD-NA	mg/L	N/A	20	04-OCT-21
Potassium (K)-Total		26.6	27.7		mg/L	4.1	20	04-OCT-21
Rubidium (Rb)-Total		0.0222	0.0215		mg/L	3.5	20	04-OCT-21
Selenium (Se)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Silicon (Si)-Total		6.6	6.9		mg/L	3.8	20	04-OCT-21
Silver (Ag)-Total		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Sodium (Na)-Total		67.8	68.9		mg/L	1.6	20	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630390-4 DUP		**WG3630390-3**						
Strontium (Sr)-Total		1.54	1.52		mg/L	1.0	20	04-OCT-21
Sulfur (S)-Total		393	404		mg/L	2.9	20	04-OCT-21
Thallium (Tl)-Total		0.00028	0.00029		mg/L	2.4	20	04-OCT-21
Tellurium (Te)-Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
Thorium (Th)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Tin (Sn)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Titanium (Ti)-Total		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	04-OCT-21
Tungsten (W)-Total		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Uranium (U)-Total		0.0668	0.0670		mg/L	0.3	20	04-OCT-21
Vanadium (V)-Total		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Zinc (Zn)-Total		<0.030	<0.030	RPD-NA	mg/L	N/A	20	04-OCT-21
Zirconium (Zr)-Total		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
WG3630390-2 LCS								
Aluminum (Al)-Total			96.6		%		80-120	04-OCT-21
Antimony (Sb)-Total			100.3		%		80-120	04-OCT-21
Arsenic (As)-Total			101.3		%		80-120	04-OCT-21
Barium (Ba)-Total			101.7		%		80-120	04-OCT-21
Beryllium (Be)-Total			94.6		%		80-120	04-OCT-21
Bismuth (Bi)-Total			99.2		%		80-120	04-OCT-21
Boron (B)-Total			87.8		%		80-120	04-OCT-21
Cadmium (Cd)-Total			94.6		%		80-120	04-OCT-21
Calcium (Ca)-Total			97.8		%		80-120	04-OCT-21
Chromium (Cr)-Total			99.4		%		80-120	04-OCT-21
Cesium (Cs)-Total			99.4		%		80-120	04-OCT-21
Cobalt (Co)-Total			99.2		%		80-120	04-OCT-21
Copper (Cu)-Total			98.1		%		80-120	04-OCT-21
Iron (Fe)-Total			99.6		%		80-120	04-OCT-21
Lead (Pb)-Total			97.3		%		80-120	04-OCT-21
Lithium (Li)-Total			93.4		%		80-120	04-OCT-21
Magnesium (Mg)-Total			105.8		%		80-120	04-OCT-21
Manganese (Mn)-Total			99.3		%		80-120	04-OCT-21
Molybdenum (Mo)-Total			99.4		%		80-120	04-OCT-21
Nickel (Ni)-Total			98.5		%		80-120	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630390-2 LCS								
Phosphorus (P)-Total			90.9		%		70-130	04-OCT-21
Potassium (K)-Total			94.0		%		80-120	04-OCT-21
Rubidium (Rb)-Total			104.2		%		80-120	04-OCT-21
Selenium (Se)-Total			98.2		%		80-120	04-OCT-21
Silicon (Si)-Total			95.5		%		60-140	04-OCT-21
Silver (Ag)-Total			98.5		%		80-120	04-OCT-21
Sodium (Na)-Total			104.9		%		80-120	04-OCT-21
Strontium (Sr)-Total			98.1		%		80-120	04-OCT-21
Sulfur (S)-Total			89.6		%		80-120	04-OCT-21
Thallium (Tl)-Total			100.3		%		80-120	04-OCT-21
Tellurium (Te)-Total			95.1		%		80-120	04-OCT-21
Thorium (Th)-Total			100.2		%		80-120	04-OCT-21
Tin (Sn)-Total			95.5		%		80-120	04-OCT-21
Titanium (Ti)-Total			95.7		%		80-120	04-OCT-21
Tungsten (W)-Total			95.0		%		80-120	04-OCT-21
Uranium (U)-Total			97.2		%		80-120	04-OCT-21
Vanadium (V)-Total			100.7		%		80-120	04-OCT-21
Zinc (Zn)-Total			95.2		%		80-120	04-OCT-21
Zirconium (Zr)-Total			94.9		%		80-120	04-OCT-21
WG3630390-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	04-OCT-21
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Arsenic (As)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Barium (Ba)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Boron (B)-Total			<0.010		mg/L		0.01	04-OCT-21
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	04-OCT-21
Calcium (Ca)-Total			<0.050		mg/L		0.05	04-OCT-21
Chromium (Cr)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Copper (Cu)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Iron (Fe)-Total			<0.010		mg/L		0.01	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630390-1 MB								
Lead (Pb)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Lithium (Li)-Total			<0.0010		mg/L		0.001	04-OCT-21
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	04-OCT-21
Manganese (Mn)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Phosphorus (P)-Total			<0.050		mg/L		0.05	04-OCT-21
Potassium (K)-Total			<0.050		mg/L		0.05	04-OCT-21
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	04-OCT-21
Selenium (Se)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Silicon (Si)-Total			<0.10		mg/L		0.1	04-OCT-21
Silver (Ag)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Sodium (Na)-Total			<0.050		mg/L		0.05	04-OCT-21
Strontium (Sr)-Total			<0.0010		mg/L		0.001	04-OCT-21
Sulfur (S)-Total			<0.50		mg/L		0.5	04-OCT-21
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	04-OCT-21
Thorium (Th)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Tin (Sn)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	04-OCT-21
Tungsten (W)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Uranium (U)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Vanadium (V)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Zinc (Zn)-Total			<0.0030		mg/L		0.003	04-OCT-21
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	04-OCT-21
WG3630390-5 MS		**WG3630390-6**						
Aluminum (Al)-Total			N/A	MS-B	%		-	04-OCT-21
Antimony (Sb)-Total			107.6		%		70-130	04-OCT-21
Arsenic (As)-Total			105.3		%		70-130	04-OCT-21
Barium (Ba)-Total			N/A	MS-B	%		-	04-OCT-21
Beryllium (Be)-Total			86.7		%		70-130	04-OCT-21
Bismuth (Bi)-Total			94.5		%		70-130	04-OCT-21
Boron (B)-Total			N/A	MS-B	%		-	04-OCT-21
Cadmium (Cd)-Total			92.7		%		70-130	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630390-5 MS		**WG3630390-6**						
Calcium (Ca)-Total			N/A	MS-B	%		-	04-OCT-21
Chromium (Cr)-Total			N/A	MS-B	%		-	04-OCT-21
Cesium (Cs)-Total			95.4		%		70-130	04-OCT-21
Cobalt (Co)-Total			N/A	MS-B	%		-	04-OCT-21
Copper (Cu)-Total			N/A	MS-B	%		-	04-OCT-21
Iron (Fe)-Total			N/A	MS-B	%		-	04-OCT-21
Lead (Pb)-Total			92.6		%		70-130	04-OCT-21
Lithium (Li)-Total			N/A	MS-B	%		-	04-OCT-21
Magnesium (Mg)-Total			N/A	MS-B	%		-	04-OCT-21
Manganese (Mn)-Total			N/A	MS-B	%		-	04-OCT-21
Molybdenum (Mo)-Total			101.7		%		70-130	04-OCT-21
Nickel (Ni)-Total			N/A	MS-B	%		-	04-OCT-21
Potassium (K)-Total			N/A	MS-B	%		-	04-OCT-21
Rubidium (Rb)-Total			N/A	MS-B	%		-	04-OCT-21
Selenium (Se)-Total			109.3		%		70-130	04-OCT-21
Silicon (Si)-Total			N/A	MS-B	%		-	04-OCT-21
Silver (Ag)-Total			96.1		%		70-130	04-OCT-21
Sodium (Na)-Total			N/A	MS-B	%		-	04-OCT-21
Strontium (Sr)-Total			N/A	MS-B	%		-	04-OCT-21
Sulfur (S)-Total			N/A	MS-B	%		-	04-OCT-21
Thallium (Tl)-Total			99.0		%		70-130	04-OCT-21
Tellurium (Te)-Total			104.2		%		70-130	04-OCT-21
Thorium (Th)-Total			99.1		%		70-130	04-OCT-21
Tin (Sn)-Total			97.5		%		70-130	04-OCT-21
Titanium (Ti)-Total			N/A	MS-B	%		-	04-OCT-21
Tungsten (W)-Total			95.5		%		70-130	04-OCT-21
Uranium (U)-Total			N/A	MS-B	%		-	04-OCT-21
Vanadium (V)-Total			89.1		%		70-130	04-OCT-21
Zinc (Zn)-Total			81.7		%		70-130	04-OCT-21
Zirconium (Zr)-Total			97.1		%		70-130	04-OCT-21
NH3-F-WT	**Water**							

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NH3-F-WT	**Water**							
Batch R5608036								
WG3629909-3 DUP		**WG3629909-5**						
Ammonia, Total (as N)		0.219	0.224		mg/L	2.4	20	04-OCT-21
WG3630107-3 DUP		**L2643999-3**						
Ammonia, Total (as N)		0.414	0.413		mg/L	0.4	20	04-OCT-21
WG3629909-2 LCS								
Ammonia, Total (as N)			101.9		%		85-115	04-OCT-21
WG3630107-2 LCS								
Ammonia, Total (as N)			106.4		%		85-115	04-OCT-21
WG3629909-1 MB								
Ammonia, Total (as N)			<0.010		mg/L		0.01	04-OCT-21
WG3630107-1 MB								
Ammonia, Total (as N)			<0.010		mg/L		0.01	04-OCT-21
WG3629909-4 MS		**WG3629909-5**						
Ammonia, Total (as N)			N/A	MS-B	%		-	04-OCT-21
WG3630107-4 MS		**L2643999-3**						
Ammonia, Total (as N)			N/A	MS-B	%		-	04-OCT-21
NO3-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Nitrate (as N)		0.539	0.537		mg/L	0.4	20	04-OCT-21
WG3630911-2 LCS								
Nitrate (as N)			100.6		%		90-110	04-OCT-21
WG3630911-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Nitrate (as N)			101.1		%		75-125	04-OCT-21
OGG-TOT-WT	**Water**							
Batch R5607195								
WG3630448-2 LCS								
Oil and Grease, Total			90.7		%		70-130	04-OCT-21
WG3630448-1 MB								
Oil and Grease, Total			<2.0		mg/L		2	04-OCT-21
Batch R5609700								
WG3630414-2 LCS								
Oil and Grease, Total			89.8		%		70-130	04-OCT-21
WG3630414-1 MB								
Oil and Grease, Total			<5.0		mg/L		5	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
OGG-TOT-WT	**Water**							
Batch R5610045								
WG3631237-2 LCS								
Oil and Grease, Total			94.7		%		70-130	05-OCT-21
WG3631237-1 MB								
Oil and Grease, Total			<5.0		mg/L		5	05-OCT-21
P-T-COL-WT	**Water**							
Batch R5608537								
WG3629908-3 DUP		**L2646092-1**						
Phosphorus, Total		0.0099	0.0104		mg/L	4.0	20	05-OCT-21
WG3629908-2 LCS								
Phosphorus, Total			99.3		%		80-120	05-OCT-21
WG3629908-1 MB								
Phosphorus, Total			<0.0030		mg/L		0.003	05-OCT-21
WG3629908-4 MS		**L2646092-1**						
Phosphorus, Total			97.0		%		70-130	05-OCT-21
PH-BF	**Water**							
Batch R5599879								
WG3625211-2 DUP		**L2642226-8**						
pH		5.80	5.70	J	pH units	0.10	0.2	22-SEP-21
WG3625211-1 LCS								
pH			7.00		pH units		6.9-7.1	22-SEP-21
SO4-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Sulfate (SO4)		21.1	21.1		mg/L	0.1	20	04-OCT-21
WG3630911-2 LCS								
Sulfate (SO4)			101.2		%		90-110	04-OCT-21
WG3630911-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Sulfate (SO4)			103.2		%		75-125	04-OCT-21
SOLIDS-TDS-BF	**Water**							
Batch R5599907								
WG3622573-3 DUP		**L2642214-1**						
Total Dissolved Solids		131	118		mg/L	10	20	22-SEP-21
WG3622573-2 LCS								
Total Dissolved Solids			103.9		%		85-115	22-SEP-21
WG3622573-1 MB								

Quality Control Report

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SOLIDS-TDS-BF	**Water**							
Batch R5599907								
WG3622573-1 MB								
Total Dissolved Solids			<10		mg/L		10	22-SEP-21
SOLIDS-TSS-BF	**Water**							
Batch R5599883								
WG3622570-3 DUP		**L2642214-1**						
Total Suspended Solids		<2.0	<2.0	RPD-NA	mg/L	N/A	25	22-SEP-21
WG3622570-2 LCS								
Total Suspended Solids			94.8		%		85-115	22-SEP-21
WG3622570-1 MB								
Total Suspended Solids			<2.0		mg/L		2	22-SEP-21
TKN-F-WT	**Water**							
Batch R5607384								
WG3629904-7 DUP		**WG3629904-9**						
Total Kjeldahl Nitrogen		0.080	0.070		mg/L	13	20	04-OCT-21
WG3629904-6 LCS								
Total Kjeldahl Nitrogen			106.3		%		75-125	04-OCT-21
WG3629904-5 MB								
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	04-OCT-21
WG3629904-8 MS		**WG3629904-9**						
Total Kjeldahl Nitrogen			105.6		%		70-130	04-OCT-21
Batch R5610003								
WG3630079-3 DUP		**L2643999-1**						
Total Kjeldahl Nitrogen		0.420	0.420		mg/L	0.0	20	05-OCT-21
WG3630079-2 LCS								
Total Kjeldahl Nitrogen			102.3		%		75-125	05-OCT-21
WG3630079-1 MB								
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	05-OCT-21
WG3630079-4 MS		**L2643999-1**						
Total Kjeldahl Nitrogen			106.8		%		70-130	05-OCT-21
TOC-WT	**Water**							
Batch R5610481								
WG3629635-15 DUP		**WG3629635-17**						
Total Organic Carbon		3.04	2.97		mg/L	2.4	20	04-OCT-21
WG3629635-14 LCS								
Total Organic Carbon			94.9		%		80-120	04-OCT-21
WG3629635-13 MB								

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
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Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
TOC-WT	**Water**							
Batch R5610481								
WG3629635-13 MB								
Total Organic Carbon			<0.50		mg/L		0.5	04-OCT-21
WG3629635-16 MS		**WG3629635-17**						
Total Organic Carbon			95.6		%		70-130	04-OCT-21
TURBIDITY-BF	**Water**							
Batch R5599881								
WG3625214-3 DUP		**L2642226-8**						
Turbidity		<0.10	<0.10	RPD-NA	NTU	N/A	15	22-SEP-21
WG3625214-2 LCS								
Turbidity			97.8		%		85-115	22-SEP-21
WG3625214-1 MB								
Turbidity			<0.10		NTU		0.1	22-SEP-21

Quality Control Report

Workorder: L2642226 Report Date: 06-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

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.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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.

Quality Control Report

Workorder: L2642226 Report Date: 06-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Physical Tests							
Turbidity							
	2	20-SEP-21 13:15	22-SEP-21 14:00	48	49	hours	EHTL
	3	20-SEP-21 13:15	22-SEP-21 14:00	48	49	hours	EHTL
Leachable Anions & Nutrients							
Nitrate in Water by IC							
	1	20-SEP-21 15:40	04-OCT-21 11:41	3	14	days	EHT
	2	20-SEP-21 13:15	04-OCT-21 11:41	3	14	days	EHT
	3	20-SEP-21 13:15	04-OCT-21 11:41	3	14	days	EHT
	4	20-SEP-21 15:10	04-OCT-21 11:41	3	14	days	EHT
	5	20-SEP-21 15:10	04-OCT-21 11:41	3	14	days	EHT
	6	21-SEP-21 15:10	04-OCT-21 11:41	3	13	days	EHT
	7	21-SEP-21 17:00	04-OCT-21 11:41	3	13	days	EHT
	8	21-SEP-21 17:00	04-OCT-21 11:41	3	13	days	EHT
Volatile Organic Compounds							
BTEX by Headspace							
	2	20-SEP-21 13:15	05-OCT-21 03:36	14	15	days	EHT
	3	20-SEP-21 13:15	05-OCT-21 03:36	14	15	days	EHT
Hydrocarbons							
F1 (O.Reg.153/04)							
	2	20-SEP-21 13:15	05-OCT-21 03:36	14	15	days	EHT
	3	20-SEP-21 13:15	05-OCT-21 03:36	14	15	days	EHT

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 L2642226 were received on 21-SEP-21 23:00.

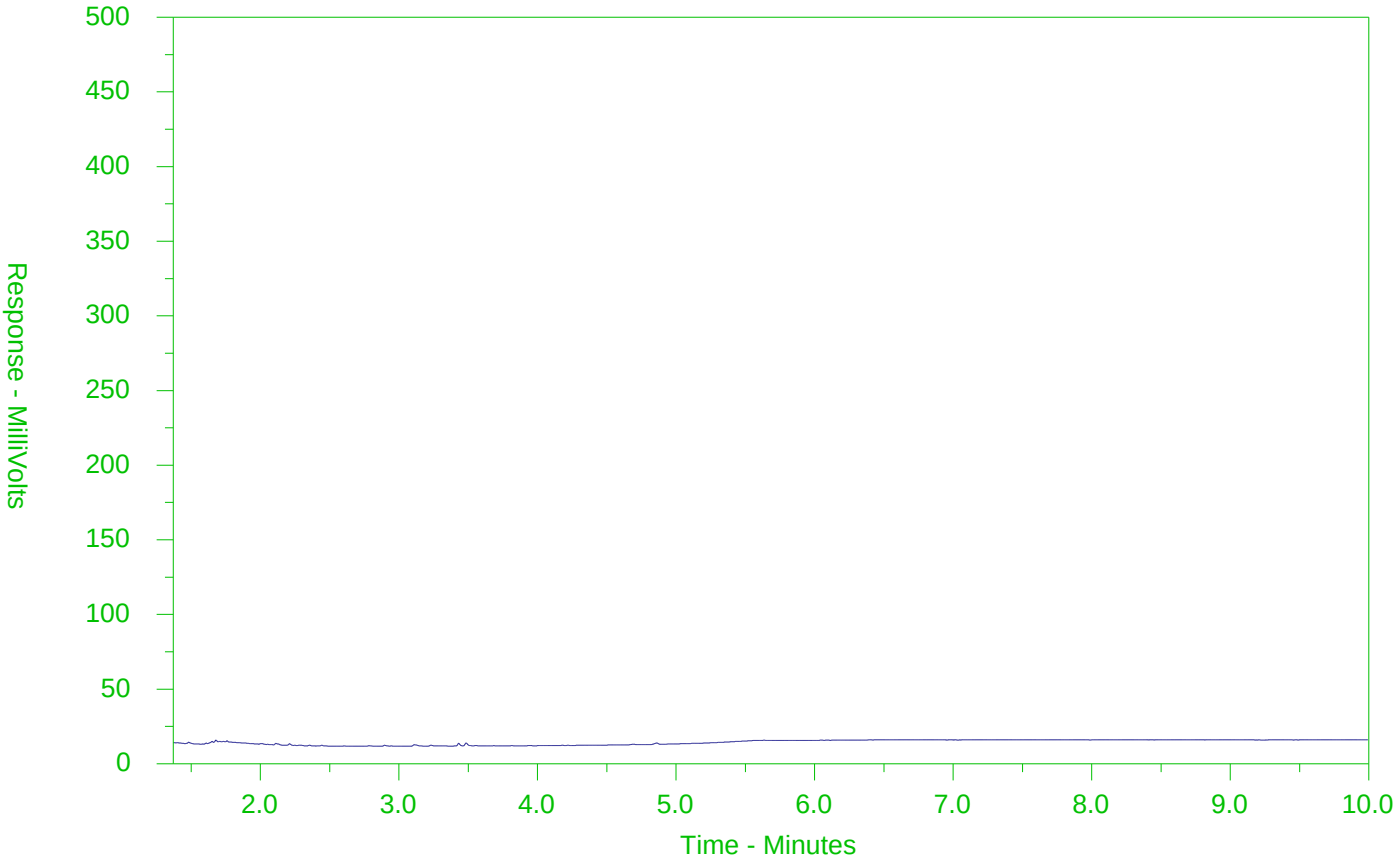
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-1
Client Sample ID: MS-LF-GW1_2021-09-20



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

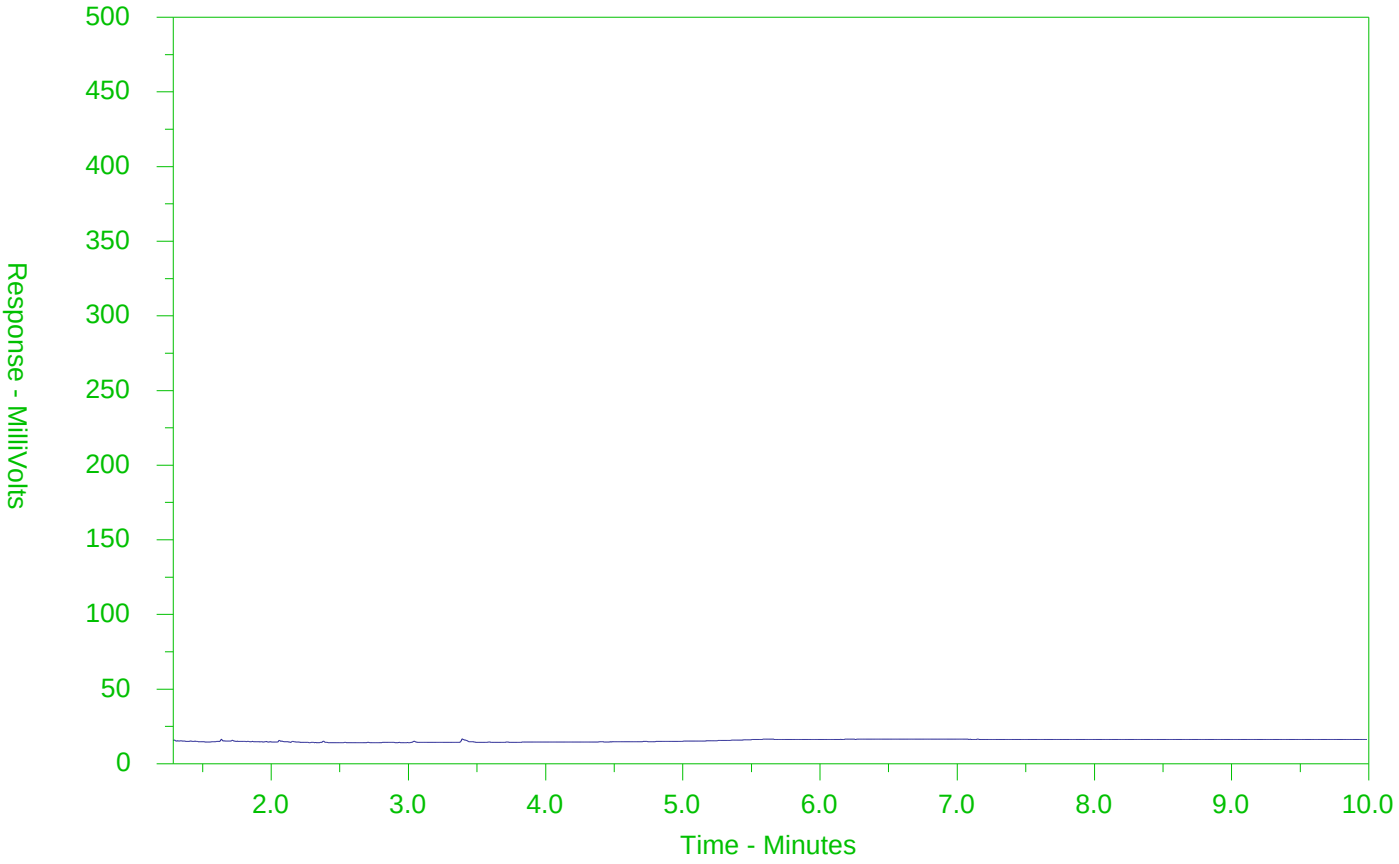
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-2
Client Sample ID: MS-LF-GW2_2021-09-20



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

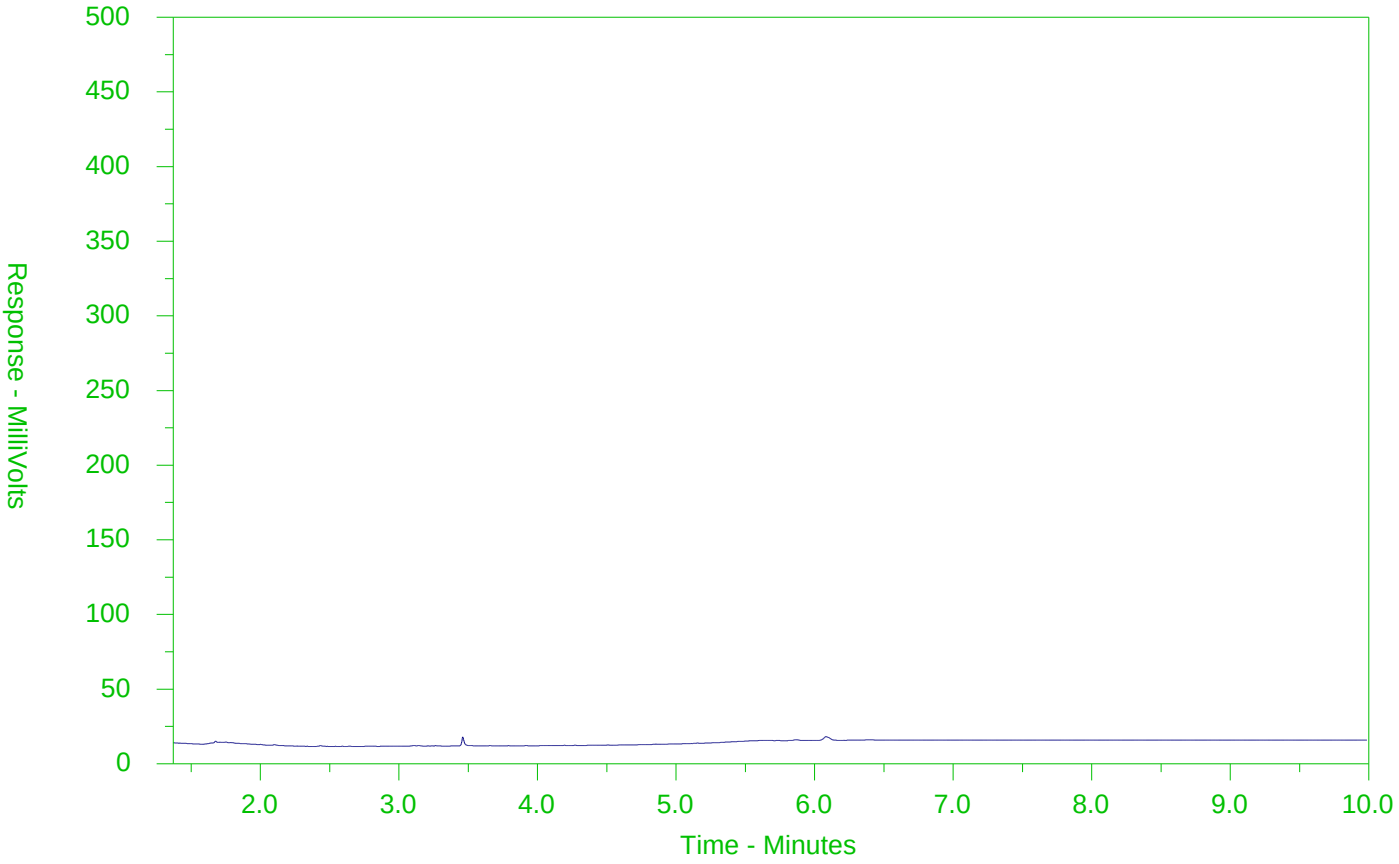
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-4
Client Sample ID: MS-LF-GW-REF2_2021-09-20



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

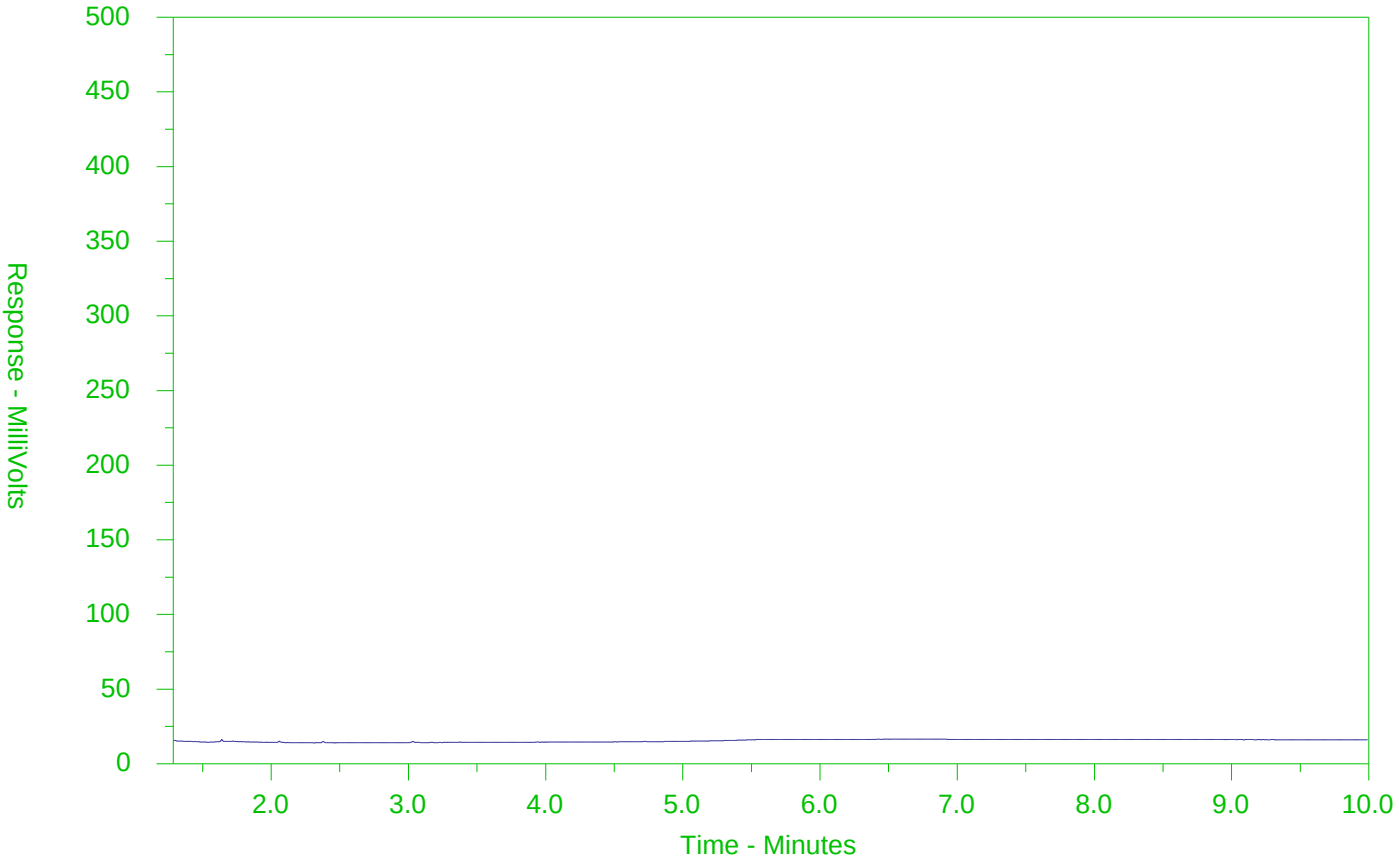
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-6
Client Sample ID: MS-LF-GW-REF1_2021-09-21



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

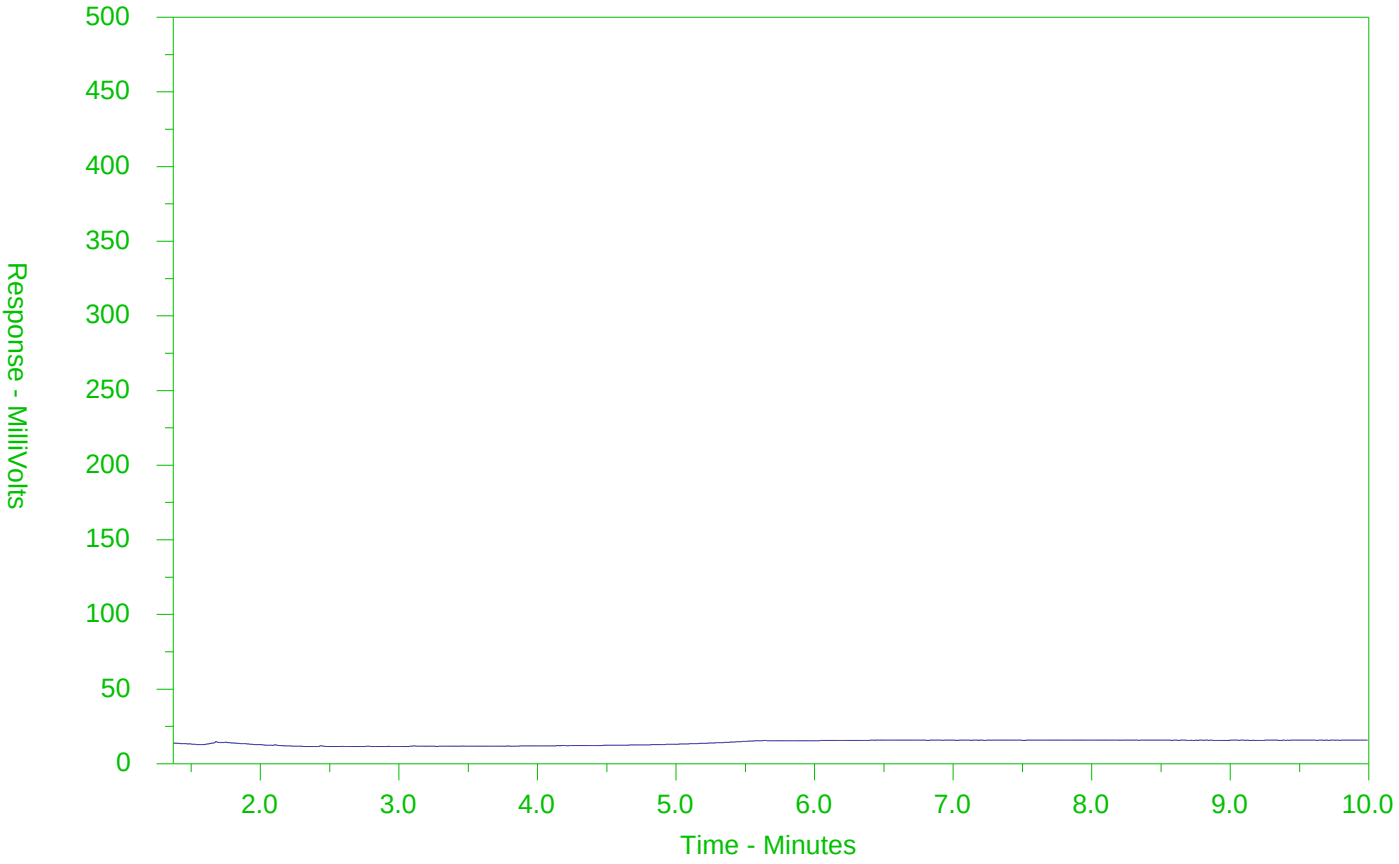
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-7
Client Sample ID: MS-LF-GW3_2021-09-21



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →	← Motor Oils/Lube Oils/Grease →		
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

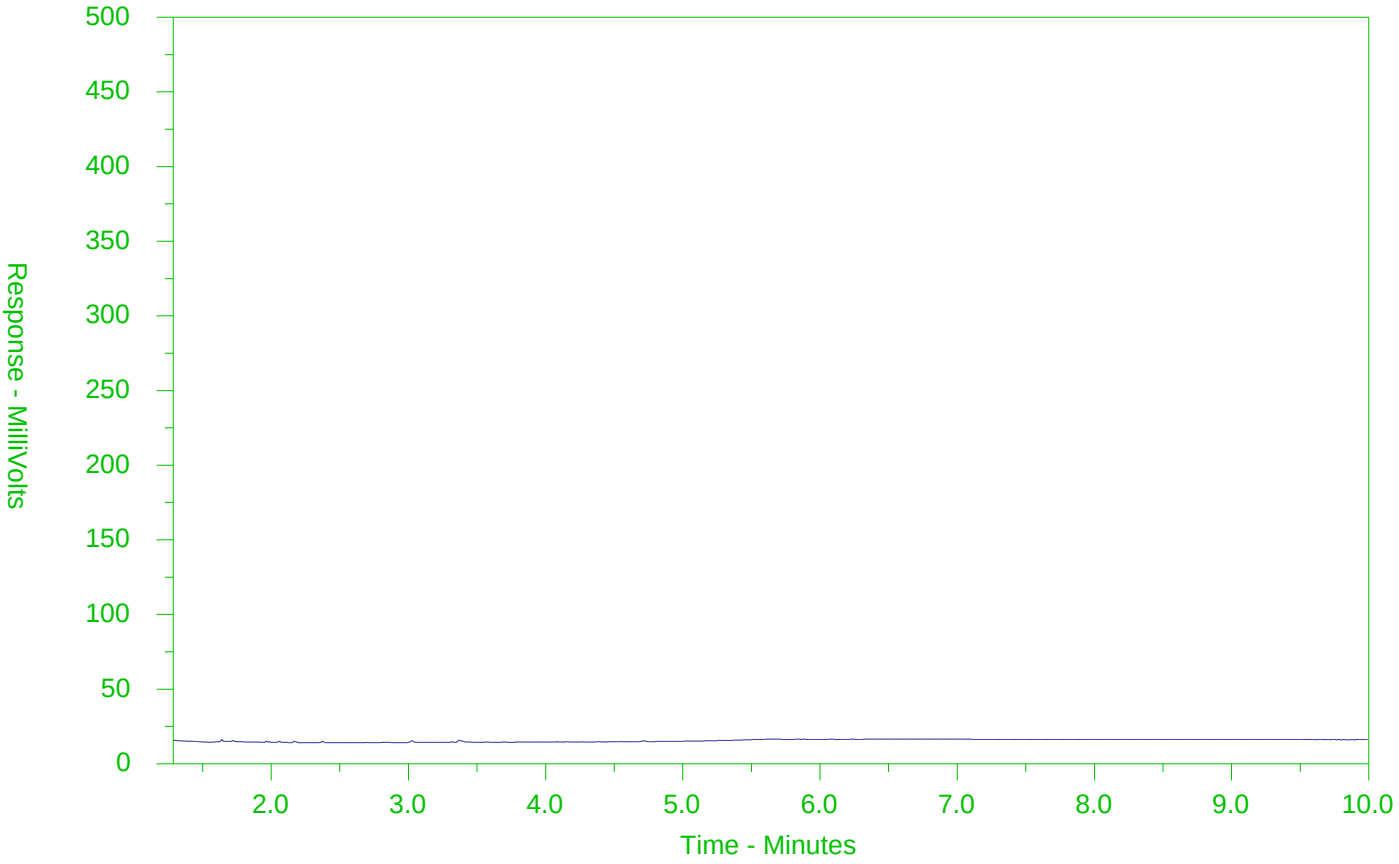
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2642226-8
Client Sample ID: MS-LF-GW304_2021-09-21



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

Chain of Custody (COC) / Analytical Request Form

COC Number: 20 -

www.alsglobal.com

Canada Toll Free: 1 800 668 9878

Page 1 of

Report To	Contact and company name below will appear on the final report
Company:	Baffinland Iron Mine Corporation
Contact:	Connor Devereaux / Kendra Button
Phone:	647-253-0596
	Company address below will appear on the final report
Street:	2275 Upper Middle Rd E, Suite 300
City/Province:	Oakville, Ontario
Postal Code:	L6H 0C3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Baffinland Iron Mine Corporation
Contact:	Accounts Payable

Project Information

ALS Account # / Quote #:	23642, Q83450
Job #:	Landfill Groundwater
PO / AFE:	4500090295
LSD:	

ALS Lab Work Order # (lab use only): L2642226

Reports / Recipients

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

Merge QC/QCI Reports with COA ☑ YES ☐ ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	BIM-ENV-LABRESULTS@baffinland.com
Email 2	bim.equissa@baffinland.com
Email 3	

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax	ap@baffinland.com
Email 2	commercial@baffinland.com

Oil and Gas Required Fields (client use)

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

ALS Contact: Rick Hawthorne

Sampler: JS/MD/SA

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply

☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum

☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum

☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum

☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum

☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush resuests on weekends, statutory holidays and non-routine tests

AFFIX ALS BARCODE LABEL HERE (ALS use only)

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

For tests that can not be performed according to the TAT requested, you will be contacted.

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification (fills automatically) (SYS_SAMPLE_CODE)	Sample Location (SYS_LOC_CODE)	Sampling Date (dd-mmm-yy)	Time (hh:mm)	Field Matrix	NUMBER OF CONTAINERS	P	Groundwater	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
1	MS-LF-GW1_2021-09-20	MS-LF-GW1	20/Sep/21	15:40	WS	14	R				
2	MS-LF-GW2_2021-09-20	MS-LF-GW2	20/Sep/21	13:15	WS	14	R				
3	MS-LF-GW201_2021-09-20	MS-LF-GW2	20/Sep/21	13:15	WS	14	R				
4	MS-LF-GW-REF2_2021-09-20	MS-LF-GW-REF2	20/Sep/21	15:10	WS	14	R				
5	MS-LF-GW-REF202_2021-09-20	MS-LF-GW-REF202	20/Sep/21	15:10	WS	14	R				
6	MS-LF-GW-REF1_2021-09-21	MS-LF-GW-REF1	21/Sep/21	15:10	WS	14	R				
7	MS-LF-GW3_2021-09-21	MS-LF-GW3	21/Sep/21	17:00	WS	14	R				
8	MS-LF-GW304_2021-09-21	MS-LF-GW3	21/Sep/21	17:00	WS	14	R				

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

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

Are samples for human consumption/ use? ☐ YES ☐ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☐ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C			FINAL COOLER TEMPERATURES °C			
	5C					

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Leo McGuire	21-Sep-21	6:49 PM

INITIAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:Sept 21, 2021	Time:
CV		

FINAL SHIPMENT RECEPTION (lab use only)

Received by:	Date:	Time:

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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**.

Baffinland Iron Mine's Corporation
(Oakville)
ATTN: Connor Devereaux/Kendra Button
2275 Upper Middle Rd. E.
Suite #300
Oakville ON L6H 0C3

Date Received: 27-SEP-21
Report Date: 08-OCT-21 15:32 (MT)
Version: FINAL

Client Phone: 647-253-0596

Certificate of Analysis

Lab Work Order #: L2643999

Project P.O. #: 4500090295
Job Reference: HWB GROUNDWATER
C of C Numbers:
Legal Site Desc:

Rick Hawthorne
Account Manager

ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-1 MS-HWB-GW-REF3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Physical Tests							
Conductivity	638		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.47		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	6.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	364		10	mg/L		29-SEP-21	R5605832
Turbidity	1.36		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	328		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.018		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	28.9		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.029		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	1.10		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.420		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0269		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	22.8		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	7.8	DLM	2.5	mg/L	26-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	9.90		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.396		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00094		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0239		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.080		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000115		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	47.0		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000082		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00491		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00082		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00495		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.932		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000956		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0061		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	49.8		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0476		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000660		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0130		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2643999-1 MS-HWB-GW-REF3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Total Metals							
Potassium (K)-Total	4.06		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00496		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000067		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.76		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	10.7		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.0820		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	7.43		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000024		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00037		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0281		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00340		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00143		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	0.0056		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00092		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00076		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0213		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.075		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000112		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	45.4		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00015		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00335		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0053		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	47.9		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.0317		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000641		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-1 MS-HWB-GW-REF3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Dissolved Metals							
Nickel (Ni)-Dissolved	0.00773		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	4.00		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00401		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000166		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	5.56		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	10.2		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.0787		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	8.09		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000013		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00331		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00053		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586

* 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
L2643999-1 MS-HWB-GW-REF3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Volatile Organic Compounds							
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<1.1		1.1	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	79.6		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	97.0		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	05-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	05-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	05-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	05-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	91.7		60-140	%	04-OCT-21	05-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	100.4		60-140	%		05-OCT-21	R5609586

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-1 MS-HWB-GW-REF3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	0.116		0.048	ug/L		06-OCT-21	
1-Methylnaphthalene	0.116		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.044	DLM	0.044	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	102.2		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	99.7		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	97.2		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	97.4		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Physical Tests							
Conductivity	651		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.49		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	9.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	387		10	mg/L		29-SEP-21	R5605832
Turbidity	4.49		0.10	NTU		27-SEP-21	R5603433

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Physical Tests							
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	332		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.017		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	29.1		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.027		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	1.06		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.420		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0227		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	22.9		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	8.2	DLM	2.5	mg/L	26-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	9.78		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.167		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00083		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0233		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.083		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000089		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	46.5		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000054		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00164		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00043		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00394		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.366		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000570		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0060		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	49.6		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0424		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000666		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.00943		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	4.19		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00458		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000067		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.14		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Total Metals							
Sodium (Na)-Total	10.4		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.0815		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	7.49		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000020		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00024		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0103		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00339		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00070		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00089		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00082		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0213		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.077		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000071		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	46.0		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00014		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00330		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0051		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	47.9		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.0321		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000634		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.00776		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	4.02		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00400		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000204	DTC	0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118

* 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
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Dissolved Metals							
Silicon (Si)-Dissolved	5.64		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	10.4		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.0760		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	8.14		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000014		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00327		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00055		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Volatile Organic Compounds							
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<0.50		0.50	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	80.2		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	97.0		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	96.6		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	99.3		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-2 MS-HWB-GW-REF301_2021-09-20 Sampled By: JS/MD/SA on 26-SEP-21 @ 10:15 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	0.113		0.050	ug/L		06-OCT-21	
1-Methylnaphthalene	0.113		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.046	DLM	0.046	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	106.7		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	104.6		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	101.8		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	101.6		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Physical Tests							
Conductivity	745		1.0	umhos/cm		02-OCT-21	R5608654
pH	8.11		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	12.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	436		10	mg/L		29-SEP-21	R5605832
Turbidity	7.23		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	376		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.414		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Anions and Nutrients							
Chloride (Cl)	45.4		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	0.021		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	0.700		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.940		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0298		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	24.1		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	8.37		0.50	mg/L	26-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	11.4		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.257		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00056		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0532		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.032		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000207		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	49.5		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000085		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00261		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00338		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00496		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.543		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000834		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0044		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	55.7		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.553		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.00113		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0319		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	3.19		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00836		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000098		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	7.92		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	16.5		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.0335		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	7.87		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Total Metals							
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000032		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00017		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	0.00023		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0148		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00476		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00103		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00098		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	0.0062		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00046		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0509		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.035		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000219		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	52.5		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	0.000018		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	0.00069		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00330		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00373		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.030		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	0.000052		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0039		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	55.9		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.568		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.00120		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0314		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	3.34		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00809		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000234	DTC	0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Silicon (Si)-Dissolved	6.94		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	17.2		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Dissolved Metals							
Strontium (Sr)-Dissolved	0.0334		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	8.90		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000029		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00506		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	0.0017		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00097		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586

* 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
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Volatile Organic Compounds							
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<1.1		1.1	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	80.2		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	97.1		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	95.2		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	95.8		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-3 MS-HWB-GW-REF2_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 11:35 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	110.2		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	108.6		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	105.0		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	105.7		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Physical Tests							
Conductivity	597		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.77		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	11.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	366		10	mg/L		29-SEP-21	R5605832
Turbidity	9.01		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	376		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.019		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	6.27		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	0.364		0.020	mg/L		04-OCT-21	R5608304

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Anions and Nutrients							
Total Kjeldahl Nitrogen	0.540		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0305		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	9.05		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	13.9	DLM	2.5	mg/L	26-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	14.7		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.142		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00440		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0355		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000138		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	42.5		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000046		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00196		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00074		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00541		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.273		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000404		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0028		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	55.1		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0672		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000345		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0227		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	1.69		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00565		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000105		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.15		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	0.000061		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	2.09		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.0234		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	3.16		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000026		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00058		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Total Metals							
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.00502		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00136		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00057		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00123		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	0.0083		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00490		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0347		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000057		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	42.4		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	0.000015		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	0.00085		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00058		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00468		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.014		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0024		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	54.3		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.0625		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000329		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0209		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	1.65		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00556		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000144		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	5.96		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	2.01		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.0228		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	3.53		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Dissolved Metals							
Thallium (Tl)-Dissolved	0.000022		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	0.00041		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00134		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00111		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	05-OCT-21	05-OCT-21	R5610013
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Volatile Organic Compounds							
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	1.99		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	1.41		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	3.40		0.50	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	82.0		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	96.9		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	210		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	210		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	82.4		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	96.5		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-4 MS-HWB-GW3_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	0.057		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	1.74		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	1.03		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	0.707		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.550	DLM	0.55	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	83.7		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	101.9		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	91.9		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	78.3		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Physical Tests							
Conductivity	1.3		1.0	umhos/cm		02-OCT-21	R5608654
pH	5.89		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	<2.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	63		10	mg/L		29-SEP-21	R5605832
Turbidity	<0.10		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	<0.50		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	<0.050		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	<0.0030		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	<0.30		0.30	mg/L		04-OCT-21	R5608304

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Anions and Nutrients							
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606363
Dissolved Organic Carbon	<0.50		0.50	mg/L	26-SEP-21	02-OCT-21	R5607080
Total Organic Carbon	0.55		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.0539		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.00055		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.085		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	0.0979		0.0050	mg/L	05-OCT-21	06-OCT-21	R5610958
Manganese (Mn)-Total	0.00123		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00021		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	0.11		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	<0.50		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.00369		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Total Metals							
Uranium (U)-Total	0.000015		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	0.0351		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.00039		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.047		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	0.000460	DTC	0.000050	mg/L	04-OCT-21	05-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	0.0346		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.00099		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00022		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	0.057		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Dissolved Metals							
Titanium (Ti)-Dissolved	0.00319		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	2.7		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	0.56		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586

* 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
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Volatile Organic Compounds							
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<0.50		0.50	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	80.1		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	96.7		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	95.6		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	102.8		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-5 MS-HWB-GW302_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 12:35 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	111.4		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	112.2		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	105.0		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	106.6		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	2.7		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Physical Tests							
Conductivity	825		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.27		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	9.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	530		10	mg/L		29-SEP-21	R5605832
Turbidity	2.61		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	384		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	0.189		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	67.0		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	0.436		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.940		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0263		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	22.2		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606381
Dissolved Organic Carbon	11.7		0.50	mg/L	26-SEP-21	05-OCT-21	R5610702

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Organic / Inorganic Carbon							
Total Organic Carbon	14.1		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.202		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00043		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0790		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.025		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000251		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	66.7		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000113		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00408		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00108		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00478		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.403		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000418		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0246		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	60.3		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.177		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000477		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0365		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	3.59		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.0188		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000074		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	8.92		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	0.000061		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	4.69		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.527		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	7.59		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000068		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00018		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.00817		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00198		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00083		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Total Metals							
Zirconium (Zr)-Total	0.00072		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	0.0100		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00034		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0734		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.024		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000212		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	65.5		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	0.000084		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	0.00152		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00074		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00404		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.016		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0219		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	59.1		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.169		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000445		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0319		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	3.49		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.0184		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000096		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	8.21		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	4.48		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.506		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	7.92		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000064		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00202		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Dissolved Metals							
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00061		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	2.45		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	0.79		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586

* 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
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Volatile Organic Compounds							
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	24.2		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	0.76		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	25.0		0.50	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	81.0		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	97.3		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		08-OCT-21	
F2 (C10-C16)	160		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	150		100	ug/L		08-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		08-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		08-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	89.1		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	90.3		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	0.049		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	0.049		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	15.1		0.028	ug/L		08-OCT-21	
1-Methylnaphthalene	7.11		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-6 MS-HWB-GW7_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 14:35 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
2-Methylnaphthalene	8.02		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	10.3	DLHC	0.10	ug/L	04-OCT-21	08-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.110	DLM	0.11	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	99.0		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	103.0		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	88.4		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	95.1		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Physical Tests							
Conductivity	745		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.19		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	22.5		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	445		10	mg/L		29-SEP-21	R5605832
Turbidity	9.40		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	417		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	24.9		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	2.50		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.480		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0494		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	10.3		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606381
Dissolved Organic Carbon	7.93		0.50	mg/L	26-SEP-21	05-OCT-21	R5610702
Total Organic Carbon	10.3		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.252		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Total Metals							
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00048		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0499		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.012		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	0.0000178		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	65.7		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000048		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00329		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00041		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00459		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.539		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000845		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0066		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	55.3		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.0110		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000278		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0137		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	1.61		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00545		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000081		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	6.91		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	2.83		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.283		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	3.71		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000025		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	0.00032		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.0152		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00269		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	0.00108		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00147		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Dissolved Metals							
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00024		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0478		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.012		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000107		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	68.8		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	0.00098		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00349		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0058		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	55.3		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.00303		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000247		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0112		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	1.52		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00477		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000091		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	6.25		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	2.77		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.298		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	4.22		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000015		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00276		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00111		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Dissolved Metals							
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	0.74		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586

* 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
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Volatile Organic Compounds							
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<0.64		0.64	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	80.0		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	95.4		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	102.3		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	96.6		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	0.027		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-7 MS-HWB-GW4_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	110.5		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	109.6		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	101.7		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	105.8		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Physical Tests							
Conductivity	2.0		1.0	umhos/cm		02-OCT-21	R5608654
pH	6.85		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	<2.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	49		10	mg/L		29-SEP-21	R5605832
Turbidity	<0.10		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	1.2		1.0	mg/L		07-OCT-21	R5613636
Ammonia, Total (as N)	0.014		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	<0.50		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.090		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	<0.0030		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	<0.30		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606381
Dissolved Organic Carbon	0.65		0.50	mg/L	26-SEP-21	05-OCT-21	R5610702
Total Organic Carbon	0.57		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Total Metals							
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	0.095		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	0.0480		0.0050	mg/L	05-OCT-21	06-OCT-21	R5610958
Manganese (Mn)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	<0.10		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	0.080		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	<0.50		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Dissolved Metals							
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	0.086		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	0.0477		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5607697
Volatile Organic Compounds							

* 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
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	1.1		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	0.87		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586

* 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
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Volatile Organic Compounds							
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<1.1		1.1	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	79.4		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	96.6		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	87.5		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	104.5		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	105.5		40-130	%	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-8 MS-HWB-GW404_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:55 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
Surrogate: Chrysene d12	105.1		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	98.3		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	100.8		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Physical Tests							
Conductivity	834		1.0	umhos/cm		02-OCT-21	R5608654
pH	7.36		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	3.5		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	548		10	mg/L		29-SEP-21	R5605832
Turbidity	2.12		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	308		1.0	mg/L		02-OCT-21	R5608654
Ammonia, Total (as N)	1.35	DLHC	0.050	mg/L		05-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	61.0		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	12.7		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	2.81		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	0.0278		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	45.2		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606381
Dissolved Organic Carbon	25.0		0.50	mg/L	26-SEP-21	05-OCT-21	R5610702
Total Organic Carbon	25.4		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	0.0582		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	0.00041		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	0.0787		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	0.028		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Total Metals							
Cadmium (Cd)-Total	0.0000228		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	52.4		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	0.000027		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Chromium (Cr)-Total	0.00245		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	0.00110		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	0.00555		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	0.122		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	0.000507		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	0.0055		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	66.5		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Manganese (Mn)-Total	0.125		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	0.000489		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	0.0244		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	2.92		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	0.00501		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	0.000272		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	5.35		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	3.91		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	0.153		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	14.4		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	0.000017		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	0.00034		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	0.00225		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	0.00357		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	0.00079		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	0.0065		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	0.00037		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	0.0788		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Dissolved Metals							
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	0.026		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	0.0000240		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Calcium (Ca)-Dissolved	50.4		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	0.000020		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	0.00145		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	0.00106		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	0.00551		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	0.013		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	0.000177		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	0.0051		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	68.6		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	0.130		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	0.000427		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	0.0237		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	2.93		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	0.00486		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	0.000336		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	5.14		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	3.85		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	0.151		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	16.5		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	0.000014		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	0.00035		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	0.00364		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	0.00079		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<2.0		2.0	mg/L	04-OCT-21	04-OCT-21	R5607195
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586

* 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
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Volatile Organic Compounds							
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	0.92		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	0.33		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586

* 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
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Volatile Organic Compounds							
Xylenes (Total)	<1.1		1.1	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	79.2		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	96.9		70-130	%		05-OCT-21	R5609586
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	97.7		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	91.1		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	0.123		0.070	ug/L		06-OCT-21	
1-Methylnaphthalene	0.123		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.067	DLM	0.067	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.065	DLQ	0.065	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	110.1		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	111.6		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	79.8		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	101.8		60-140	%	04-OCT-21	06-OCT-21	R5611218

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ALS ENVIRONMENTAL ANALYTICAL REPORT

Sample Details/Parameters	Result	Qualifier*	D.L.	Units	Extracted	Analyzed	Batch
L2643999-9 MS-HWB-GW5_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Polycyclic Aromatic Hydrocarbons							
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	<2.0		2.0	ug/L		05-OCT-21	
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Physical Tests							
Conductivity	1.2		1.0	umhos/cm		02-OCT-21	R5608661
pH	5.68		0.10	pH units		27-SEP-21	R5603428
Total Suspended Solids	<2.0		2.0	mg/L		27-SEP-21	R5603579
Total Dissolved Solids	46		10	mg/L		29-SEP-21	R5605832
Turbidity	<0.10		0.10	NTU		27-SEP-21	R5603433
Anions and Nutrients							
Alkalinity, Total (as CaCO3)	<1.0		1.0	mg/L		02-OCT-21	R5608661
Ammonia, Total (as N)	<0.010		0.010	mg/L		04-OCT-21	R5608036
Bromide (Br)	<0.10		0.10	mg/L		04-OCT-21	R5608304
Chloride (Cl)	<0.50		0.50	mg/L		04-OCT-21	R5608304
Fluoride (F)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Nitrate (as N)	<0.020		0.020	mg/L		04-OCT-21	R5608304
Total Kjeldahl Nitrogen	0.090		0.050	mg/L	04-OCT-21	05-OCT-21	R5610003
Phosphorus, Total	<0.0030		0.0030	mg/L	04-OCT-21	05-OCT-21	R5608537
Sulfate (SO4)	<0.30		0.30	mg/L		04-OCT-21	R5608304
Organic / Inorganic Carbon							
Dissolved Carbon Filtration Location	FIELD				26-SEP-21	01-OCT-21	R5606381
Dissolved Organic Carbon	1.07		0.50	mg/L	26-SEP-21	05-OCT-21	R5610702
Total Organic Carbon	0.60		0.50	mg/L		05-OCT-21	R5610528
Total Metals							
Aluminum (Al)-Total	<0.0050		0.0050	mg/L	03-OCT-21	04-OCT-21	R5607181
Antimony (Sb)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Arsenic (As)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Barium (Ba)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Beryllium (Be)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Bismuth (Bi)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Boron (B)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Cadmium (Cd)-Total	<0.0000050		0.0000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Calcium (Ca)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cesium (Cs)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181

* 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
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Total Metals							
Chromium (Cr)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Cobalt (Co)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Copper (Cu)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Iron (Fe)-Total	<0.010		0.010	mg/L	03-OCT-21	04-OCT-21	R5607181
Lead (Pb)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Lithium (Li)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Magnesium (Mg)-Total	0.0051		0.0050	mg/L	05-OCT-21	06-OCT-21	R5610958
Manganese (Mn)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Mercury (Hg)-Total	<0.0000050		0.0000050	mg/L		05-OCT-21	R5609164
Molybdenum (Mo)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Nickel (Ni)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Phosphorus (P)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Potassium (K)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Rubidium (Rb)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Selenium (Se)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Silicon (Si)-Total	<0.10		0.10	mg/L	03-OCT-21	04-OCT-21	R5607181
Silver (Ag)-Total	<0.000050		0.000050	mg/L	03-OCT-21	04-OCT-21	R5607181
Sodium (Na)-Total	<0.050		0.050	mg/L	03-OCT-21	04-OCT-21	R5607181
Strontium (Sr)-Total	<0.0010		0.0010	mg/L	03-OCT-21	04-OCT-21	R5607181
Sulfur (S)-Total	<0.50		0.50	mg/L	03-OCT-21	04-OCT-21	R5607181
Tellurium (Te)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Thallium (Tl)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Thorium (Th)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Tin (Sn)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Titanium (Ti)-Total	<0.00030		0.00030	mg/L	03-OCT-21	04-OCT-21	R5607181
Tungsten (W)-Total	<0.00010		0.00010	mg/L	03-OCT-21	04-OCT-21	R5607181
Uranium (U)-Total	<0.000010		0.000010	mg/L	03-OCT-21	04-OCT-21	R5607181
Vanadium (V)-Total	<0.00050		0.00050	mg/L	03-OCT-21	04-OCT-21	R5607181
Zinc (Zn)-Total	<0.0030		0.0030	mg/L	03-OCT-21	04-OCT-21	R5607181
Zirconium (Zr)-Total	<0.00020		0.00020	mg/L	03-OCT-21	04-OCT-21	R5607181
Dissolved Metals							
Dissolved Mercury Filtration Location	FIELD					05-OCT-21	R5609785
Dissolved Metals Filtration Location	FIELD					04-OCT-21	R5607366
Aluminum (Al)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Antimony (Sb)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Arsenic (As)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Barium (Ba)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Beryllium (Be)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Bismuth (Bi)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Boron (B)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Cadmium (Cd)-Dissolved	<0.0000050		0.0000050	mg/L	04-OCT-21	04-OCT-21	R5608118

* 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
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Dissolved Metals							
Calcium (Ca)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cesium (Cs)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Chromium (Cr)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Cobalt (Co)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Copper (Cu)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Iron (Fe)-Dissolved	<0.010		0.010	mg/L	04-OCT-21	04-OCT-21	R5608118
Lead (Pb)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Lithium (Li)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Magnesium (Mg)-Dissolved	<0.0050		0.0050	mg/L	04-OCT-21	04-OCT-21	R5608118
Manganese (Mn)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Mercury (Hg)-Dissolved	<0.0000050		0.0000050	mg/L	05-OCT-21	06-OCT-21	R5611023
Molybdenum (Mo)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Nickel (Ni)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Phosphorus (P)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Potassium (K)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Rubidium (Rb)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Selenium (Se)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silicon (Si)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Silver (Ag)-Dissolved	<0.000050		0.000050	mg/L	04-OCT-21	04-OCT-21	R5608118
Sodium (Na)-Dissolved	<0.050		0.050	mg/L	04-OCT-21	04-OCT-21	R5608118
Strontium (Sr)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Sulfur (S)-Dissolved	<0.50		0.50	mg/L	04-OCT-21	04-OCT-21	R5608118
Tellurium (Te)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Thallium (Tl)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Thorium (Th)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Tin (Sn)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Titanium (Ti)-Dissolved	<0.00030		0.00030	mg/L	04-OCT-21	04-OCT-21	R5608118
Tungsten (W)-Dissolved	<0.00010		0.00010	mg/L	04-OCT-21	04-OCT-21	R5608118
Uranium (U)-Dissolved	<0.000010		0.000010	mg/L	04-OCT-21	04-OCT-21	R5608118
Vanadium (V)-Dissolved	<0.00050		0.00050	mg/L	04-OCT-21	04-OCT-21	R5608118
Zinc (Zn)-Dissolved	<0.0010		0.0010	mg/L	04-OCT-21	04-OCT-21	R5608118
Zirconium (Zr)-Dissolved	<0.00020		0.00020	mg/L	04-OCT-21	04-OCT-21	R5608118
Aggregate Organics							
Oil and Grease, Total	<5.0		5.0	mg/L	04-OCT-21	04-OCT-21	R5607697
Volatile Organic Compounds							
Acetone	<20		20	ug/L		05-OCT-21	R5609586
Benzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Bromodichloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromoform	<1.0		1.0	ug/L		05-OCT-21	R5609586
Bromomethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Carbon Disulfide	<1.0		1.0	ug/L		05-OCT-21	R5609586

* 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
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Volatile Organic Compounds							
Carbon tetrachloride	<0.20		0.20	ug/L		05-OCT-21	R5609586
Chlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dibromochloromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Chloroform	2.6		1.0	ug/L		05-OCT-21	R5609586
Chloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dibromoethane	<0.20		0.20	ug/L		05-OCT-21	R5609586
1,2-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,3-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,4-Dichlorobenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Dichlorodifluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
1,1-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,2-Dichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,2-Dichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
trans-1,2-Dichloroethylene	0.80		0.50	ug/L		05-OCT-21	R5609586
Dichloromethane	<2.0		2.0	ug/L		05-OCT-21	R5609586
1,2-Dichloropropane	<0.50		0.50	ug/L		05-OCT-21	R5609586
cis-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
trans-1,3-Dichloropropene	<0.30		0.30	ug/L		05-OCT-21	R5609586
Ethylbenzene	<0.50		0.50	ug/L		05-OCT-21	R5609586
n-Hexane	<0.50		0.50	ug/L		05-OCT-21	R5609586
2-Hexanone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Ethyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
Methyl Isobutyl Ketone	<20		20	ug/L		05-OCT-21	R5609586
MTBE	<0.50		0.50	ug/L		05-OCT-21	R5609586
Styrene	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,1,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2,2-Tetrachloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Tetrachloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Toluene	<0.40		0.40	ug/L		05-OCT-21	R5609586
1,1,1-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
1,1,2-Trichloroethane	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichloroethylene	<0.50		0.50	ug/L		05-OCT-21	R5609586
Trichlorofluoromethane	<1.0		1.0	ug/L		05-OCT-21	R5609586
Vinyl chloride	<0.50		0.50	ug/L		05-OCT-21	R5609586
o-Xylene	<0.30		0.30	ug/L		05-OCT-21	R5609586
m+p-Xylenes	<0.40		0.40	ug/L		05-OCT-21	R5609586
Xylenes (Total)	<0.50		0.50	ug/L		05-OCT-21	
Surrogate: 4-Bromofluorobenzene	79.6		70-130	%		05-OCT-21	R5609586
Surrogate: 1,4-Difluorobenzene	96.7		70-130	%		05-OCT-21	R5609586

* 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
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Volatile Organic Compounds							
Hydrocarbons							
F1 (C6-C10)	<100		100	ug/L		05-OCT-21	R5609586
F1-BTEX	<100		100	ug/L		06-OCT-21	
F2 (C10-C16)	<100		100	ug/L	04-OCT-21	06-OCT-21	R5608560
F2-Naphth	<100		100	ug/L		06-OCT-21	
F3 (C16-C34)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
F3-PAH	<250		250	ug/L		06-OCT-21	
F4 (C34-C50)	<250		250	ug/L	04-OCT-21	06-OCT-21	R5608560
Total Hydrocarbons (C6-C50)	<380		380	ug/L		06-OCT-21	
Chrom. to baseline at nC50	YES				04-OCT-21	06-OCT-21	R5608560
Surrogate: 2-Bromobenzotrifluoride	85.3		60-140	%	04-OCT-21	06-OCT-21	R5608560
Surrogate: 3,4-Dichlorotoluene	104.6		60-140	%		05-OCT-21	R5609586
Polycyclic Aromatic Hydrocarbons							
Acenaphthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acenaphthylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Acridine	<4.0		4.0	ug/L	04-OCT-21	06-OCT-21	R5611218
Anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(a)pyrene	<0.0050		0.0050	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(b&j)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(g,h,i)perylene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Benzo(k)fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Chrysene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Dibenz(a,h)anthracene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluoranthene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Fluorene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Indeno(1,2,3-cd)pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
1+2-Methylnaphthalenes	<0.028		0.028	ug/L		06-OCT-21	
1-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
2-Methylnaphthalene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Naphthalene	<0.050		0.050	ug/L	04-OCT-21	06-OCT-21	R5611218
Phenanthrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Pyrene	<0.020		0.020	ug/L	04-OCT-21	06-OCT-21	R5611218
Quinoline	<0.040		0.040	ug/L	04-OCT-21	06-OCT-21	R5611218
Surrogate: Acridine d9	105.3		40-130	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Chrysene d12	105.3		50-150	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Naphthalene d8	98.8		60-140	%	04-OCT-21	06-OCT-21	R5611218
Surrogate: Phenanthrene d10	100.9		60-140	%	04-OCT-21	06-OCT-21	R5611218
B(a)P Total Potency Equivalent	<0.060		0.060	ug/L	04-OCT-21	06-OCT-21	R5611218
Trihalomethanes							
Total THMs	2.6		2.0	ug/L		05-OCT-21	
Glycols							

* 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
L2643999-10 MS-HWB-GW503_2021-09-26 Sampled By: JS/MD/SA on 26-SEP-21 @ 15:25 Matrix: Water							
Glycols							
Diethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Ethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Propylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947
Triethylene Glycol	<5.0		5.0	mg/L	06-OCT-21	07-OCT-21	R5613947

* 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	Alkalinity, Total (as CaCO3)	B	L2643999-10
Method Blank	Magnesium (Mg)-Total	B	L2643999-1, -2, -3, -4, -6, -7, -9
Method Blank	n-Hexane	B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Laboratory Control Sample	trans-1,3-Dichloropropene	MES	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silver (Ag)-Dissolved	MES	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Dissolved Organic Carbon	MS-B	L2643999-1, -2, -3, -4, -5
Matrix Spike	Dissolved Organic Carbon	MS-B	L2643999-10, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Boron (B)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Cobalt (Co)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Copper (Cu)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Iron (Fe)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Lithium (Li)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Manganese (Mn)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Nickel (Ni)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Potassium (K)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Rubidium (Rb)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Uranium (U)-Dissolved	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Aluminum (Al)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Barium (Ba)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Boron (B)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Calcium (Ca)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Iron (Fe)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Magnesium (Mg)-Total	MS-B	L2643999-10, -5, -8
Matrix Spike	Manganese (Mn)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Potassium (K)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Silicon (Si)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sodium (Na)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Strontium (Sr)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Sulfur (S)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Uranium (U)-Total	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Ammonia, Total (as N)	MS-B	L2643999-1, -10, -2, -3, -4, -5, -6, -7, -8, -9
Matrix Spike	Total Organic Carbon	MS-B	L2643999-1, -10, -2, -3, -4, -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.
DLHC	Detection Limit Raised: Dilution required due to high concentration of test analyte(s).
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).
DLQ	Detection Limit raised due to co-eluting interference. GCMS qualifier ion ratio did not meet acceptance criteria.
DTC	Dissolved concentration exceeds total. Results were confirmed by re-analysis.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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**

Reference Information

ALK-WT	Water	Alkalinity, Total (as CaCO3)	APHA 2320B

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.

BR-IC-N-WT	Water	Bromide in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

BTX-HS-WT	Water	BTEX by Headspace	SW846 8260 (HEADSPACE)

BTX is determined by analyzing by headspace-GC/MS.

CL-IC-N-WT	Water	Chloride by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

DOC-WT	Water	Dissolved Organic Carbon	APHA 5310B

Sample is filtered through a 0.45um filter, then injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic carbon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

EC-WT	Water	Conductivity	APHA 2510 B

Water samples can be measured directly by immersing the conductivity cell into the sample.

F-IC-N-WT	Water	Fluoride in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

F1-F4-CALC-WT	Water	CCME Total Hydrocarbons	CCME CWS-PHC, Pub #1310, Dec 2001-L

Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC.

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.
In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

In samples where PAHs, F2 and F3 were analyzed, F2-Naphth represents the result where Naphthalene has been subtracted from F2. F3-PAH represents a result where the sum of Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)fluoranthene, Dibenzo(a,h)anthracene, Fluoranthene, Indeno(1,2,3-cd)pyrene, Phenanthrene, and Pyrene has been subtracted from F3.

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:
1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:
1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-WT	Water	F1 (O.Reg.153/04)	E3421/CCME (HS)

Fraction F1 is determined by analyzing by headspace-GC/FID.

F2-F4-WT	Water	F2-F4 (O.Reg.153/04)	MOE DECPH-E3421/CCME TIER 1

Petroleum Hydrocarbons (F2-F4 fractions) are extracted from water using a hexane micro-extraction technique. Instrumental analysis is by GC-FID, as per the Reference Method for the Canada-Wide Standard for Petroleum Hydrocarbons in Soil Tier 1 Method, CCME, 2001.

GLYCOL-CL	Water	Glycol Screen	ASTM D2908-91

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 8015D and 3550C, published by the United States Environmental Protection Agency (EPA). Water samples are bath ultra-sonicated and analyzed by GC-FID direct aqueous injection.

		Glycol Screen	EPA 3550C, EPA 8015D

Reference Information

GLYCOL-CL	Water		

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 8015D and 3550C, published by the United States Environmental Protection Agency (EPA). Water samples are bath ultra-sonicated and analyzed by GC-FID direct aqueous injection.

HG-D-CVAA-WT	Water	Dissolved Mercury in Water by CVAAS	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 CVAAS.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

HG-T-CVAA-WT	Water	Total Mercury in Water by CVAAS	EPA 1631E (mod)

Water samples undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

MET-D-CCMS-WT	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.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

MET-T-CCMS-WT	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.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011).

METHYLNAPS-CALC-WT	Water	PAH-Calculated Parameters	SW846 8270
NH3-F-WT	Water	Ammonia in Water by Fluorescence	J. ENVIRON. MONIT., 2005, 7, 37-42, RSC

This analysis is carried out, on sulfuric acid preserved samples, using procedures modified from J. Environ. Monit., 2005, 7, 37 - 42, The Royal Society of Chemistry, "Flow-injection analysis with fluorescence detection for the determination of trace levels of ammonium in seawater", Roslyn J. Waston et al.

NO3-IC-N-WT	Water	Nitrate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

OGG-TOT-WT	Water	Oil and Grease, Total	APHA 5520 B

The procedure involves an extraction of the entire water sample with hexane. This extract is then evaporated to dryness, and the residue weighed to determine Oil and Grease.

P-T-COL-WT	Water	Total P in Water by Colour	APHA 4500-P PHOSPHORUS

This analysis is carried out using procedures adapted from APHA Method 4500-P "Phosphorus". Total Phosphorus is deteremined colourimetrically after persulphate digestion of the sample.

PAH-CCME-WT	Water	CCME PAHs	SW846 8270

Sample is extracted at neutral pH using separate aliquots of dichloromethane with a modified separatory funnel technique, extracts are then concentrated and analyzed by GC/MSD. Depending on the analytical GC/MS column used benzo(j)fluoranthene may chromatographically co-elute with benzo(b)fluoranthene or benzo(k)fluoranthene.

PH-BF	Water	pH	APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

SO4-IC-N-WT	Water	Sulfate in Water by IC	EPA 300.1 (mod)

Inorganic anions are analyzed by Ion Chromatography with conductivity and/or UV detection.

Reference Information

SOLIDS-TDS-BF	Water	Total Dissolved Solids	APHA 2540C

A well-mixed sample is filtered though glass fibres filter. A known volume of the filtrate is evaporated and dried at 180 +/- 2C for 1hr.

SOLIDS-TSS-BF	Water	Suspended solids	APHA 2540 D-Gravimetric

A well-mixed sample is filtered through a weighed standard glass fibre filter and the residue retained is dried in an oven at 104 +/- 1C for a minimum of four hours or until a constant weight is achieved.

THM-SUM-PPB-CALC-WT	Water	Total Trihalomethanes (THMs)	CALCULATION

Total Trihalomethanes (THMs) represents the sum of bromodichloromethane, bromoform, chlorodibromomethane and chloroform. For the purpose of calculation, results less than the detection limit (DL) are treated as zero.

TKN-F-WT	Water	TKN in Water by Fluorescence	J. ENVIRON. MONIT., 2005,7,37-42,RSC

Total Kjeldahl Nitrogen is determined using block digestion followed by Flow-injection analysis with fluorescence detection

TOC-WT	Water	Total Organic Carbon	APHA 5310B

Sample is injected into a heated reaction chamber which is packed with an oxidative catalyst. The water is vaporized and the organic cabon is oxidized to carbon dioxide. The carbon dioxide is transported in a carrier gas and is measured by a non-dispersive infrared detector.

TURBIDITY-BF	Water	Turbidity	APHA 2130 B

Sample result is based on a comparison of the intensity of the light scattered by the sample under defined conditions with the intensity of light scattered by a standard reference suspension under the same conditions. Sample readings are obtained from a Nephelometer.

VOC-ROU-HS-WT	Water	Volatile Organic Compounds	SW846 8260

Aqueous samples are analyzed by headspace-GC/MS.

XYLENES-SUM-CALC-WT	Water	Sum of Xylene Isomer Concentrations	CALCULATION

Total xylenes represents the sum of o-xylene and m&p-xylene.

** 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
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA
CL	ALS ENVIRONMENTAL - CALGARY, ALBERTA, CANADA
BF	ALS ENVIRONMENTAL - BAFFIN ISLAND, NUNAVUT, 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: L2643999 Report Date: 08-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
ALK-WT	**Water**							
Batch R5608654								
WG3629996-4 DUP		**WG3629996-3**						
Alkalinity, Total (as CaCO3)		314	317		mg/L	0.9	20	02-OCT-21
WG3629996-2 LCS								
Alkalinity, Total (as CaCO3)			113.6		%		85-115	02-OCT-21
Batch R5608661								
WG3630010-4 DUP		**WG3630010-3**						
Alkalinity, Total (as CaCO3)		97.0	96.1		mg/L	0.9	20	02-OCT-21
WG3630010-2 LCS								
Alkalinity, Total (as CaCO3)			113.4		%		85-115	02-OCT-21
WG3630010-1 MB								
Alkalinity, Total (as CaCO3)			2.2	B	mg/L		1	02-OCT-21
Batch R5613636								
WG3630011-4 DUP		**WG3630011-3**						
Alkalinity, Total (as CaCO3)		44.7	53.5		mg/L	18	20	07-OCT-21
WG3630011-2 LCS								
Alkalinity, Total (as CaCO3)			106.1		%		85-115	07-OCT-21
WG3630011-1 MB								
Alkalinity, Total (as CaCO3)			<2.0		mg/L		2	07-OCT-21
BR-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Bromide (Br)		<0.10	<0.10	RPD-NA	mg/L	N/A	20	04-OCT-21
WG3630911-2 LCS								
Bromide (Br)			101.1		%		85-115	04-OCT-21
WG3630911-1 MB								
Bromide (Br)			<0.10		mg/L		0.1	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Bromide (Br)			102.9		%		75-125	04-OCT-21
CL-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Chloride (Cl)		5.16	5.14		mg/L	0.4	20	04-OCT-21
WG3630911-2 LCS								
Chloride (Cl)			100.4		%		90-110	04-OCT-21
WG3630911-1 MB								
Chloride (Cl)			<0.50		mg/L		0.5	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-5 MS		**WG3630911-3**						
Chloride (Cl)			101.4		%		75-125	04-OCT-21
DOC-WT	**Water**							
Batch R5607080								
WG3629762-3 DUP		**WG3629762-5**						
Dissolved Organic Carbon		28.6	29.8		mg/L	4.0	20	02-OCT-21
WG3629762-2 LCS								
Dissolved Organic Carbon			100.2		%		80-120	02-OCT-21
WG3629762-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	02-OCT-21
WG3629762-4 MS		**WG3629762-5**						
Dissolved Organic Carbon			N/A	MS-B	%		-	02-OCT-21
Batch R5610702								
WG3629763-3 DUP		**L2643999-6**						
Dissolved Organic Carbon		11.7	12.1		mg/L	3.8	20	05-OCT-21
WG3629763-2 LCS								
Dissolved Organic Carbon			101.0		%		80-120	05-OCT-21
WG3629763-1 MB								
Dissolved Organic Carbon			<0.50		mg/L		0.5	05-OCT-21
WG3629763-4 MS		**L2643999-6**						
Dissolved Organic Carbon			N/A	MS-B	%		-	05-OCT-21
EC-WT	**Water**							
Batch R5608654								
WG3629996-4 DUP		**WG3629996-3**						
Conductivity		1120	1100		umhos/cm	1.3	10	02-OCT-21
WG3629996-2 LCS								
Conductivity			100.2		%		90-110	02-OCT-21
WG3629996-1 MB								
Conductivity			<2.0		umhos/cm		2	04-OCT-21
Batch R5608661								
WG3630010-4 DUP		**WG3630010-3**						
Conductivity		1350	1350		umhos/cm	0.1	10	02-OCT-21
WG3630010-2 LCS								
Conductivity			101.0		%		90-110	02-OCT-21
WG3630010-1 MB								
Conductivity			<2.0		umhos/cm		2	02-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Fluoride (F)		0.041	0.040		mg/L	2.5	20	04-OCT-21
WG3630911-2 LCS								
Fluoride (F)			100.9		%		90-110	04-OCT-21
WG3630911-1 MB								
Fluoride (F)			<0.020		mg/L		0.02	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Fluoride (F)			98.5		%		75-125	04-OCT-21
F1-HS-WT	**Water**							
Batch R5609586								
WG3630983-4 DUP		**WG3630983-3**						
F1 (C6-C10)		<100	<100	RPD-NA	ug/L	N/A	50	05-OCT-21
WG3630983-1 LCS								
F1 (C6-C10)			111.0		%		80-120	05-OCT-21
WG3630983-2 MB								
F1 (C6-C10)			<100		ug/L		100	04-OCT-21
Surrogate: 3,4-Dichlorotoluene			97.8		%		60-140	04-OCT-21
WG3630983-5 MS		**WG3630983-3**						
F1 (C6-C10)			96.9		%		50-150	05-OCT-21
F2-F4-WT	**Water**							
Batch R5608560								
WG3630929-2 LCS								
F2 (C10-C16)			108.1		%		70-130	05-OCT-21
F3 (C16-C34)			114.6		%		70-130	05-OCT-21
F4 (C34-C50)			104.4		%		70-130	05-OCT-21
WG3630929-1 MB								
F2 (C10-C16)			<100		ug/L		100	05-OCT-21
F3 (C16-C34)			<250		ug/L		250	05-OCT-21
F4 (C34-C50)			<250		ug/L		250	05-OCT-21
Surrogate: 2-Bromobenzotrifluoride			88.5		%		60-140	05-OCT-21
GLYCOL-CL	**Water**							
Batch R5613947								
WG3633635-3 DUP		**L2643999-1**						
Diethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
Ethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
Propylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYCOL-CL	**Water**							
Batch R5613947								
WG3633635-3 DUP		**L2643999-1**						
Triethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
WG3633635-5 DUP		**L2646948-2**						
Diethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
Ethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
Propylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
Triethylene Glycol		<5.0	<5.0	RPD-NA	mg/L	N/A	30	07-OCT-21
WG3633635-12 LCS								
Diethylene Glycol			78.9		%		70-130	07-OCT-21
Ethylene Glycol			74.0		%		70-130	07-OCT-21
Propylene Glycol			76.3		%		70-130	07-OCT-21
Triethylene Glycol			86.1		%		70-130	07-OCT-21
WG3633635-2 LCS								
Diethylene Glycol			83.2		%		70-130	07-OCT-21
Ethylene Glycol			80.6		%		70-130	07-OCT-21
Propylene Glycol			80.6		%		70-130	07-OCT-21
Triethylene Glycol			89.3		%		70-130	07-OCT-21
WG3633635-1 MB								
Diethylene Glycol			<5.0		mg/L		5	07-OCT-21
Ethylene Glycol			<5.0		mg/L		5	07-OCT-21
Propylene Glycol			<5.0		mg/L		5	07-OCT-21
Triethylene Glycol			<5.0		mg/L		5	07-OCT-21
WG3633635-11 MB								
Diethylene Glycol			<5.0		mg/L		5	07-OCT-21
Ethylene Glycol			<5.0		mg/L		5	07-OCT-21
Propylene Glycol			<5.0		mg/L		5	07-OCT-21
Triethylene Glycol			<5.0		mg/L		5	07-OCT-21
WG3633635-4 MS		**L2643999-2**						
Diethylene Glycol			90.5		%		50-150	07-OCT-21
Ethylene Glycol			94.0		%		50-150	07-OCT-21
Propylene Glycol			92.8		%		50-150	07-OCT-21
Triethylene Glycol			94.6		%		50-150	07-OCT-21
WG3633635-6 MS		**L2646948-5**						
Diethylene Glycol			89.7		%		50-150	07-OCT-21
Ethylene Glycol			88.1		%		50-150	07-OCT-21
Propylene Glycol			91.7		%		50-150	07-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
GLYCOL-CL	**Water**							
Batch R5613947								
WG3633635-6 MS		**L2646948-5**						
Triethylene Glycol			91.9		%		50-150	07-OCT-21
HG-D-CVAA-WT	**Water**							
Batch R5611023								
WG3631916-3 DUP		**L2642226-4**						
Mercury (Hg)-Dissolved		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	06-OCT-21
WG3631916-2 LCS								
Mercury (Hg)-Dissolved			95.8		%		80-120	06-OCT-21
WG3631916-1 MB								
Mercury (Hg)-Dissolved			<0.000005C		mg/L		0.000005	06-OCT-21
WG3631916-4 MS		**L2642226-5**						
Mercury (Hg)-Dissolved			109.0		%		70-130	06-OCT-21
HG-T-CVAA-WT	**Water**							
Batch R5609164								
WG3631343-3 DUP		**L2642226-4**						
Mercury (Hg)-Total		<0.0000050	<0.000005C	RPD-NA	mg/L	N/A	20	05-OCT-21
WG3631343-2 LCS								
Mercury (Hg)-Total			83.2		%		80-120	05-OCT-21
WG3631343-1 MB								
Mercury (Hg)-Total			<0.000005C		mg/L		0.000005	05-OCT-21
WG3631343-4 MS		**L2642226-5**						
Mercury (Hg)-Total			113.0		%		70-130	05-OCT-21
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-4 DUP		**WG3630889-3**						
Aluminum (Al)-Dissolved		<0.050	<0.050	RPD-NA	mg/L	N/A	20	04-OCT-21
Antimony (Sb)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Arsenic (As)-Dissolved		0.0017	0.0015		mg/L	13	20	04-OCT-21
Barium (Ba)-Dissolved		0.0654	0.0640		mg/L	2.2	20	04-OCT-21
Beryllium (Be)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Bismuth (Bi)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Boron (B)-Dissolved		6.97	7.03		mg/L	0.8	20	04-OCT-21
Cadmium (Cd)-Dissolved		0.000194	0.000176		mg/L	9.7	20	04-OCT-21
Calcium (Ca)-Dissolved		596	598		mg/L	0.5	20	04-OCT-21
Cesium (Cs)-Dissolved		0.00018	0.00019		mg/L	5.8	20	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-4 DUP		**WG3630889-3**						
Chromium (Cr)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Cobalt (Co)-Dissolved		0.0189	0.0177		mg/L	6.6	20	04-OCT-21
Copper (Cu)-Dissolved		0.0131	0.0117		mg/L	11	20	04-OCT-21
Iron (Fe)-Dissolved		0.20	0.19		mg/L	4.9	20	04-OCT-21
Lead (Pb)-Dissolved		0.00226	0.00227		mg/L	0.3	20	04-OCT-21
Lithium (Li)-Dissolved		0.573	0.537		mg/L	6.6	20	04-OCT-21
Magnesium (Mg)-Dissolved		81.8	79.2		mg/L	3.1	20	04-OCT-21
Manganese (Mn)-Dissolved		7.13	6.71		mg/L	6.0	20	04-OCT-21
Molybdenum (Mo)-Dissolved		0.00925	0.00945		mg/L	2.1	20	04-OCT-21
Nickel (Ni)-Dissolved		0.192	0.185		mg/L	3.7	20	04-OCT-21
Phosphorus (P)-Dissolved		<0.50	<0.50	RPD-NA	mg/L	N/A	20	04-OCT-21
Potassium (K)-Dissolved		27.9	27.1		mg/L	3.0	20	04-OCT-21
Rubidium (Rb)-Dissolved		0.0230	0.0219		mg/L	4.8	20	04-OCT-21
Selenium (Se)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Silicon (Si)-Dissolved		6.80	6.72		mg/L	1.1	20	04-OCT-21
Silver (Ag)-Dissolved		<0.00050	<0.00050	RPD-NA	mg/L	N/A	20	04-OCT-21
Sodium (Na)-Dissolved		72.3	69.3		mg/L	4.4	20	04-OCT-21
Strontium (Sr)-Dissolved		1.57	1.57		mg/L	0.3	20	04-OCT-21
Sulfur (S)-Dissolved		449	446		mg/L	0.7	20	04-OCT-21
Tellurium (Te)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
Thallium (Tl)-Dissolved		0.00028	0.00027		mg/L	3.3	20	04-OCT-21
Thorium (Th)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Tin (Sn)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Titanium (Ti)-Dissolved		<0.0030	<0.0030	RPD-NA	mg/L	N/A	20	04-OCT-21
Tungsten (W)-Dissolved		<0.0010	<0.0010	RPD-NA	mg/L	N/A	20	04-OCT-21
Uranium (U)-Dissolved		0.0716	0.0713		mg/L	0.5	20	04-OCT-21
Vanadium (V)-Dissolved		<0.0050	<0.0050	RPD-NA	mg/L	N/A	20	04-OCT-21
Zinc (Zn)-Dissolved		<0.010	<0.010	RPD-NA	mg/L	N/A	20	04-OCT-21
Zirconium (Zr)-Dissolved		<0.0020	<0.0020	RPD-NA	mg/L	N/A	20	04-OCT-21
WG3630889-2 LCS								
Aluminum (Al)-Dissolved			86.8		%		80-120	04-OCT-21
Antimony (Sb)-Dissolved			95.5		%		80-120	04-OCT-21
Arsenic (As)-Dissolved			90.8		%		80-120	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-2 LCS								
Barium (Ba)-Dissolved			87.8		%		80-120	04-OCT-21
Beryllium (Be)-Dissolved			85.4		%		80-120	04-OCT-21
Bismuth (Bi)-Dissolved			97.9		%		80-120	04-OCT-21
Boron (B)-Dissolved			86.4		%		80-120	05-OCT-21
Cadmium (Cd)-Dissolved			85.3		%		80-120	04-OCT-21
Calcium (Ca)-Dissolved			91.1		%		80-120	04-OCT-21
Cesium (Cs)-Dissolved			94.2		%		80-120	04-OCT-21
Chromium (Cr)-Dissolved			87.9		%		80-120	04-OCT-21
Cobalt (Co)-Dissolved			89.7		%		80-120	04-OCT-21
Copper (Cu)-Dissolved			88.5		%		80-120	04-OCT-21
Iron (Fe)-Dissolved			89.2		%		80-120	04-OCT-21
Lead (Pb)-Dissolved			94.5		%		80-120	04-OCT-21
Lithium (Li)-Dissolved			81.9		%		80-120	04-OCT-21
Magnesium (Mg)-Dissolved			94.2		%		80-120	04-OCT-21
Manganese (Mn)-Dissolved			88.4		%		80-120	04-OCT-21
Molybdenum (Mo)-Dissolved			92.9		%		80-120	04-OCT-21
Nickel (Ni)-Dissolved			88.6		%		80-120	04-OCT-21
Phosphorus (P)-Dissolved			98.6		%		80-120	04-OCT-21
Potassium (K)-Dissolved			81.8		%		80-120	04-OCT-21
Rubidium (Rb)-Dissolved			92.6		%		80-120	04-OCT-21
Selenium (Se)-Dissolved			93.7		%		80-120	04-OCT-21
Silicon (Si)-Dissolved			84.2		%		60-140	04-OCT-21
Silver (Ag)-Dissolved			92.1		%		80-120	04-OCT-21
Sodium (Na)-Dissolved			93.6		%		80-120	04-OCT-21
Strontium (Sr)-Dissolved			91.2		%		80-120	04-OCT-21
Sulfur (S)-Dissolved			98.1		%		80-120	04-OCT-21
Tellurium (Te)-Dissolved			94.0		%		80-120	04-OCT-21
Thallium (Tl)-Dissolved			97.8		%		80-120	04-OCT-21
Thorium (Th)-Dissolved			96.4		%		80-120	04-OCT-21
Tin (Sn)-Dissolved			85.9		%		80-120	04-OCT-21
Titanium (Ti)-Dissolved			83.5		%		80-120	04-OCT-21
Tungsten (W)-Dissolved			88.3		%		80-120	04-OCT-21
Uranium (U)-Dissolved			95.7		%		80-120	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-2 LCS								
Vanadium (V)-Dissolved			89.4		%		80-120	04-OCT-21
Zinc (Zn)-Dissolved			89.6		%		80-120	04-OCT-21
Zirconium (Zr)-Dissolved			87.8		%		80-120	04-OCT-21
WG3630889-1 MB								
Aluminum (Al)-Dissolved			<0.0050		mg/L		0.005	04-OCT-21
Antimony (Sb)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Arsenic (As)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Barium (Ba)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Beryllium (Be)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Bismuth (Bi)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Boron (B)-Dissolved			<0.010		mg/L		0.01	04-OCT-21
Cadmium (Cd)-Dissolved			<0.000005C		mg/L		0.000005	04-OCT-21
Calcium (Ca)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Cesium (Cs)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Chromium (Cr)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Cobalt (Co)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Copper (Cu)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
Iron (Fe)-Dissolved			<0.010		mg/L		0.01	04-OCT-21
Lead (Pb)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Lithium (Li)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Magnesium (Mg)-Dissolved			<0.0050		mg/L		0.005	04-OCT-21
Manganese (Mn)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Molybdenum (Mo)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Nickel (Ni)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Phosphorus (P)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Potassium (K)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Rubidium (Rb)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
Selenium (Se)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Silicon (Si)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Silver (Ag)-Dissolved			<0.000050		mg/L		0.00005	04-OCT-21
Sodium (Na)-Dissolved			<0.050		mg/L		0.05	04-OCT-21
Strontium (Sr)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Sulfur (S)-Dissolved			<0.50		mg/L		0.5	04-OCT-21
Tellurium (Te)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-1 MB								
Thallium (Tl)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Thorium (Th)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Tin (Sn)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Titanium (Ti)-Dissolved			<0.00030		mg/L		0.0003	04-OCT-21
Tungsten (W)-Dissolved			<0.00010		mg/L		0.0001	04-OCT-21
Uranium (U)-Dissolved			<0.000010		mg/L		0.00001	04-OCT-21
Vanadium (V)-Dissolved			<0.00050		mg/L		0.0005	04-OCT-21
Zinc (Zn)-Dissolved			<0.0010		mg/L		0.001	04-OCT-21
Zirconium (Zr)-Dissolved			<0.00020		mg/L		0.0002	04-OCT-21
WG3630889-5 MS		**WG3630889-3**						
Aluminum (Al)-Dissolved			81.1		%		70-130	04-OCT-21
Antimony (Sb)-Dissolved			97.6		%		70-130	04-OCT-21
Arsenic (As)-Dissolved			97.6		%		70-130	04-OCT-21
Barium (Ba)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Beryllium (Be)-Dissolved			85.8		%		70-130	04-OCT-21
Bismuth (Bi)-Dissolved			97.7		%		70-130	04-OCT-21
Boron (B)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Cadmium (Cd)-Dissolved			88.3		%		70-130	04-OCT-21
Calcium (Ca)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Cesium (Cs)-Dissolved			92.4		%		70-130	04-OCT-21
Chromium (Cr)-Dissolved			85.1		%		70-130	04-OCT-21
Cobalt (Co)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Copper (Cu)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Iron (Fe)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Lead (Pb)-Dissolved			87.7		%		70-130	04-OCT-21
Lithium (Li)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Magnesium (Mg)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Manganese (Mn)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Nickel (Ni)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Phosphorus (P)-Dissolved			84.2		%		70-130	04-OCT-21
Potassium (K)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Rubidium (Rb)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Selenium (Se)-Dissolved			101.7		%		70-130	04-OCT-21
Silicon (Si)-Dissolved			N/A	MS-B	%		-	04-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-CCMS-WT	**Water**							
Batch R5608118								
WG3630889-5 MS		**WG3630889-3**						
Silver (Ag)-Dissolved			64.2	MES	%		70-130	04-OCT-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Strontium (Sr)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Sulfur (S)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Tellurium (Te)-Dissolved			100.0		%		70-130	04-OCT-21
Thallium (Tl)-Dissolved			100.2		%		70-130	04-OCT-21
Thorium (Th)-Dissolved			100.5		%		70-130	04-OCT-21
Tin (Sn)-Dissolved			91.7		%		70-130	04-OCT-21
Titanium (Ti)-Dissolved			89.6		%		70-130	04-OCT-21
Tungsten (W)-Dissolved			94.1		%		70-130	04-OCT-21
Uranium (U)-Dissolved			N/A	MS-B	%		-	04-OCT-21
Vanadium (V)-Dissolved			96.3		%		70-130	04-OCT-21
Zinc (Zn)-Dissolved			77.8		%		70-130	04-OCT-21
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-4 DUP		**WG3630391-3**						
Aluminum (Al)-Total		0.396	0.413		mg/L	4.2	20	04-OCT-21
Antimony (Sb)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	04-OCT-21
Arsenic (As)-Total		0.00094	0.00096		mg/L	2.6	20	04-OCT-21
Barium (Ba)-Total		0.0239	0.0240		mg/L	0.4	20	04-OCT-21
Beryllium (Be)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	04-OCT-21
Bismuth (Bi)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	04-OCT-21
Boron (B)-Total		0.080	0.080		mg/L	0.0	20	04-OCT-21
Cadmium (Cd)-Total		0.0000115	0.0000144	J	mg/L	0.0000029	0.00001	04-OCT-21
Calcium (Ca)-Total		47.0	45.6		mg/L	3.1	20	04-OCT-21
Chromium (Cr)-Total		0.00491	0.00495		mg/L	0.9	20	04-OCT-21
Cesium (Cs)-Total		0.000082	0.000079		mg/L	3.0	20	04-OCT-21
Cobalt (Co)-Total		0.00082	0.00081		mg/L	0.7	20	04-OCT-21
Copper (Cu)-Total		0.00495	0.00475		mg/L	4.3	20	04-OCT-21
Iron (Fe)-Total		0.932	0.952		mg/L	2.1	20	04-OCT-21
Lead (Pb)-Total		0.000956	0.000939		mg/L	1.8	20	04-OCT-21
Lithium (Li)-Total		0.0061	0.0058		mg/L	5.1	20	04-OCT-21
Magnesium (Mg)-Total		49.8	49.6		mg/L	0.4	20	04-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-4 DUP		**WG3630391-3**						
Manganese (Mn)-Total		0.0476	0.0484		mg/L	1.6	20	04-OCT-21
Molybdenum (Mo)-Total		0.000660	0.000654		mg/L	1.0	20	04-OCT-21
Nickel (Ni)-Total		0.0130	0.0129		mg/L	0.5	20	04-OCT-21
Phosphorus (P)-Total		<0.050	<0.050	RPD-NA	mg/L	N/A	20	04-OCT-21
Potassium (K)-Total		4.06	4.03		mg/L	0.7	20	04-OCT-21
Rubidium (Rb)-Total		0.00496	0.00506		mg/L	2.1	20	04-OCT-21
Selenium (Se)-Total		0.000067	0.000085	J	mg/L	0.000018	0.0001	04-OCT-21
Silicon (Si)-Total		6.76	6.75		mg/L	0.2	20	04-OCT-21
Silver (Ag)-Total		<0.000050	<0.000050	RPD-NA	mg/L	N/A	20	04-OCT-21
Sodium (Na)-Total		10.7	10.5		mg/L	2.5	20	04-OCT-21
Strontium (Sr)-Total		0.0820	0.0780		mg/L	5.0	20	04-OCT-21
Sulfur (S)-Total		7.43	7.40		mg/L	0.4	20	04-OCT-21
Thallium (Tl)-Total		0.000024	0.000023		mg/L	2.5	20	04-OCT-21
Tellurium (Te)-Total		<0.00020	<0.00020	RPD-NA	mg/L	N/A	20	04-OCT-21
Thorium (Th)-Total		0.00037	0.00035		mg/L	6.6	20	04-OCT-21
Tin (Sn)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	04-OCT-21
Titanium (Ti)-Total		0.0281	0.0301		mg/L	6.8	20	04-OCT-21
Tungsten (W)-Total		<0.00010	<0.00010	RPD-NA	mg/L	N/A	20	04-OCT-21
Uranium (U)-Total		0.00340	0.00330		mg/L	3.0	20	04-OCT-21
Vanadium (V)-Total		0.00143	0.00151		mg/L	5.3	20	04-OCT-21
Zinc (Zn)-Total		0.0056	0.0032	J	mg/L	0.0024	0.006	04-OCT-21
Zirconium (Zr)-Total		0.00092	0.00091		mg/L	1.2	20	04-OCT-21
WG3630391-2 LCS								
Aluminum (Al)-Total			98.2		%		80-120	04-OCT-21
Antimony (Sb)-Total			104.3		%		80-120	04-OCT-21
Arsenic (As)-Total			99.1		%		80-120	04-OCT-21
Barium (Ba)-Total			99.8		%		80-120	04-OCT-21
Beryllium (Be)-Total			100.8		%		80-120	04-OCT-21
Bismuth (Bi)-Total			101.5		%		80-120	04-OCT-21
Boron (B)-Total			97.4		%		80-120	04-OCT-21
Cadmium (Cd)-Total			95.4		%		80-120	04-OCT-21
Calcium (Ca)-Total			101.4		%		80-120	04-OCT-21
Chromium (Cr)-Total			98.6		%		80-120	04-OCT-21

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Oakville ON L6H 0C3
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-2 LCS								
Cesium (Cs)-Total			99.9		%		80-120	04-OCT-21
Cobalt (Co)-Total			98.0		%		80-120	04-OCT-21
Copper (Cu)-Total			97.0		%		80-120	04-OCT-21
Iron (Fe)-Total			97.3		%		80-120	04-OCT-21
Lead (Pb)-Total			99.7		%		80-120	04-OCT-21
Lithium (Li)-Total			99.8		%		80-120	04-OCT-21
Magnesium (Mg)-Total			104.4		%		80-120	04-OCT-21
Manganese (Mn)-Total			96.5		%		80-120	04-OCT-21
Molybdenum (Mo)-Total			101.5		%		80-120	04-OCT-21
Nickel (Ni)-Total			97.2		%		80-120	04-OCT-21
Phosphorus (P)-Total			93.7		%		70-130	04-OCT-21
Potassium (K)-Total			93.2		%		80-120	04-OCT-21
Rubidium (Rb)-Total			100.8		%		80-120	04-OCT-21
Selenium (Se)-Total			99.5		%		80-120	04-OCT-21
Silicon (Si)-Total			96.5		%		60-140	04-OCT-21
Silver (Ag)-Total			101.6		%		80-120	04-OCT-21
Sodium (Na)-Total			101.0		%		80-120	04-OCT-21
Strontium (Sr)-Total			100.6		%		80-120	04-OCT-21
Sulfur (S)-Total			95.4		%		80-120	04-OCT-21
Thallium (Tl)-Total			103.9		%		80-120	04-OCT-21
Tellurium (Te)-Total			98.5		%		80-120	04-OCT-21
Thorium (Th)-Total			100.8		%		80-120	04-OCT-21
Tin (Sn)-Total			96.3		%		80-120	04-OCT-21
Titanium (Ti)-Total			95.9		%		80-120	04-OCT-21
Tungsten (W)-Total			97.6		%		80-120	04-OCT-21
Uranium (U)-Total			100.8		%		80-120	04-OCT-21
Vanadium (V)-Total			99.6		%		80-120	04-OCT-21
Zinc (Zn)-Total			94.8		%		80-120	04-OCT-21
Zirconium (Zr)-Total			98.1		%		80-120	04-OCT-21
WG3630391-1 MB								
Aluminum (Al)-Total			<0.0050		mg/L		0.005	04-OCT-21
Antimony (Sb)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Arsenic (As)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Barium (Ba)-Total			<0.00010		mg/L		0.0001	04-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-1 MB								
Beryllium (Be)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Bismuth (Bi)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Boron (B)-Total			<0.010		mg/L		0.01	04-OCT-21
Cadmium (Cd)-Total			<0.000005(		mg/L		0.000005	04-OCT-21
Calcium (Ca)-Total			<0.050		mg/L		0.05	04-OCT-21
Chromium (Cr)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Cesium (Cs)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Cobalt (Co)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Copper (Cu)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Iron (Fe)-Total			<0.010		mg/L		0.01	04-OCT-21
Lead (Pb)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Lithium (Li)-Total			<0.0010		mg/L		0.001	04-OCT-21
Magnesium (Mg)-Total			0.0177	B	mg/L		0.005	04-OCT-21
Manganese (Mn)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Molybdenum (Mo)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Nickel (Ni)-Total			<0.00050		mg/L		0.0005	04-OCT-21
Phosphorus (P)-Total			<0.050		mg/L		0.05	04-OCT-21
Potassium (K)-Total			<0.050		mg/L		0.05	04-OCT-21
Rubidium (Rb)-Total			<0.00020		mg/L		0.0002	04-OCT-21
Selenium (Se)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Silicon (Si)-Total			<0.10		mg/L		0.1	04-OCT-21
Silver (Ag)-Total			<0.000050		mg/L		0.00005	04-OCT-21
Sodium (Na)-Total			<0.050		mg/L		0.05	04-OCT-21
Strontium (Sr)-Total			<0.0010		mg/L		0.001	04-OCT-21
Sulfur (S)-Total			<0.50		mg/L		0.5	04-OCT-21
Thallium (Tl)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Tellurium (Te)-Total			<0.00020		mg/L		0.0002	04-OCT-21
Thorium (Th)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Tin (Sn)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Titanium (Ti)-Total			<0.00030		mg/L		0.0003	04-OCT-21
Tungsten (W)-Total			<0.00010		mg/L		0.0001	04-OCT-21
Uranium (U)-Total			<0.000010		mg/L		0.00001	04-OCT-21
Vanadium (V)-Total			<0.00050		mg/L		0.0005	04-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-1 MB								
Zinc (Zn)-Total			<0.0030		mg/L		0.003	04-OCT-21
Zirconium (Zr)-Total			<0.00020		mg/L		0.0002	04-OCT-21
WG3630391-5 MS		**WG3630391-6**						
Aluminum (Al)-Total			N/A	MS-B	%		-	04-OCT-21
Antimony (Sb)-Total			105.5		%		70-130	04-OCT-21
Arsenic (As)-Total			98.2		%		70-130	04-OCT-21
Barium (Ba)-Total			N/A	MS-B	%		-	04-OCT-21
Beryllium (Be)-Total			94.0		%		70-130	04-OCT-21
Bismuth (Bi)-Total			94.2		%		70-130	04-OCT-21
Boron (B)-Total			N/A	MS-B	%		-	04-OCT-21
Cadmium (Cd)-Total			96.6		%		70-130	04-OCT-21
Calcium (Ca)-Total			N/A	MS-B	%		-	04-OCT-21
Chromium (Cr)-Total			92.7		%		70-130	04-OCT-21
Cesium (Cs)-Total			101.6		%		70-130	04-OCT-21
Cobalt (Co)-Total			94.5		%		70-130	04-OCT-21
Copper (Cu)-Total			91.4		%		70-130	04-OCT-21
Iron (Fe)-Total			N/A	MS-B	%		-	04-OCT-21
Lead (Pb)-Total			93.7		%		70-130	04-OCT-21
Lithium (Li)-Total			82.8		%		70-130	04-OCT-21
Magnesium (Mg)-Total			N/A	MS-B	%		-	04-OCT-21
Manganese (Mn)-Total			N/A	MS-B	%		-	04-OCT-21
Molybdenum (Mo)-Total			104.7		%		70-130	04-OCT-21
Nickel (Ni)-Total			91.5		%		70-130	04-OCT-21
Phosphorus (P)-Total			102.1		%		70-130	04-OCT-21
Potassium (K)-Total			N/A	MS-B	%		-	04-OCT-21
Rubidium (Rb)-Total			96.5		%		70-130	04-OCT-21
Selenium (Se)-Total			99.0		%		70-130	04-OCT-21
Silicon (Si)-Total			N/A	MS-B	%		-	04-OCT-21
Silver (Ag)-Total			99.99		%		70-130	04-OCT-21
Sodium (Na)-Total			N/A	MS-B	%		-	04-OCT-21
Strontium (Sr)-Total			N/A	MS-B	%		-	04-OCT-21
Sulfur (S)-Total			N/A	MS-B	%		-	04-OCT-21
Thallium (Tl)-Total			98.1		%		70-130	04-OCT-21
Tellurium (Te)-Total			96.0		%		70-130	04-OCT-21

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Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-T-CCMS-WT	**Water**							
Batch R5607181								
WG3630391-5 MS		**WG3630391-6**						
Thorium (Th)-Total			98.6		%		70-130	04-OCT-21
Tin (Sn)-Total			97.9		%		70-130	04-OCT-21
Titanium (Ti)-Total			74.0		%		70-130	04-OCT-21
Tungsten (W)-Total			94.7		%		70-130	04-OCT-21
Uranium (U)-Total			N/A	MS-B	%		-	04-OCT-21
Vanadium (V)-Total			98.9		%		70-130	04-OCT-21
Zinc (Zn)-Total			89.8		%		70-130	04-OCT-21
Zirconium (Zr)-Total			97.6		%		70-130	04-OCT-21
Batch R5610958								
WG3632034-4 DUP		**WG3632034-3**						
Magnesium (Mg)-Total		9.51	9.47		mg/L	0.5	20	06-OCT-21
WG3632034-2 LCS								
Magnesium (Mg)-Total			108.8		%		80-120	06-OCT-21
WG3632034-1 MB								
Magnesium (Mg)-Total			<0.0050		mg/L		0.005	06-OCT-21
WG3632034-5 MS		**WG3632034-6**						
Magnesium (Mg)-Total			N/A	MS-B	%		-	06-OCT-21
NH3-F-WT	**Water**							
Batch R5608036								
WG3630107-3 DUP		**L2643999-3**						
Ammonia, Total (as N)		0.414	0.413		mg/L	0.4	20	04-OCT-21
WG3630107-2 LCS								
Ammonia, Total (as N)			106.4		%		85-115	04-OCT-21
WG3630107-1 MB								
Ammonia, Total (as N)			<0.010		mg/L		0.01	04-OCT-21
WG3630107-4 MS		**L2643999-3**						
Ammonia, Total (as N)			N/A	MS-B	%		-	04-OCT-21
NO3-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Nitrate (as N)		0.539	0.537		mg/L	0.4	20	04-OCT-21
WG3630911-2 LCS								
Nitrate (as N)			100.6		%		90-110	04-OCT-21
WG3630911-1 MB								
Nitrate (as N)			<0.020		mg/L		0.02	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
NO3-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-5 MS		**WG3630911-3**						
Nitrate (as N)			101.1		%		75-125	04-OCT-21
OGG-TOT-WT	**Water**							
Batch R5607195								
WG3630448-2 LCS								
Oil and Grease, Total			90.7		%		70-130	04-OCT-21
WG3630448-1 MB								
Oil and Grease, Total			<2.0		mg/L		2	04-OCT-21
Batch R5607697								
WG3630868-2 LCS								
Oil and Grease, Total			88.8		%		70-130	04-OCT-21
WG3630868-1 MB								
Oil and Grease, Total			<5.0		mg/L		5	04-OCT-21
Batch R5610013								
WG3631178-2 LCS								
Oil and Grease, Total			84.1		%		70-130	05-OCT-21
WG3631178-1 MB								
Oil and Grease, Total			<5.0		mg/L		5	05-OCT-21
P-T-COL-WT	**Water**							
Batch R5608537								
WG3630103-3 DUP		**L2643999-2**						
Phosphorus, Total		0.0227	0.0223		mg/L	1.6	20	05-OCT-21
WG3630103-2 LCS								
Phosphorus, Total			100.6		%		80-120	05-OCT-21
WG3630103-1 MB								
Phosphorus, Total			<0.0030		mg/L		0.003	05-OCT-21
WG3630103-4 MS		**L2643999-2**						
Phosphorus, Total			89.9		%		70-130	05-OCT-21
PAH-CCME-WT	**Water**							
Batch R5611218								
WG3630929-2 LCS								
1-Methylnaphthalene			92.6		%		50-130	06-OCT-21
2-Methylnaphthalene			92.2		%		50-130	06-OCT-21
Acenaphthene			96.3		%		50-130	06-OCT-21
Acenaphthylene			91.5		%		50-130	06-OCT-21
Acridine			105.2		%		60-130	06-OCT-21

Quality Control Report

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Oakville ON L6H 0C3
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-CCME-WT	**Water**							
Batch R5611218								
WG3630929-2 LCS								
Anthracene			88.9		%		60-130	06-OCT-21
Benzo(a)anthracene			100.0		%		60-140	06-OCT-21
Benzo(a)pyrene			90.3		%		60-130	06-OCT-21
Benzo(b&j)fluoranthene			97.0		%		60-130	06-OCT-21
Benzo(g,h,i)perylene			106.4		%		50-140	06-OCT-21
Benzo(k)fluoranthene			97.5		%		60-130	06-OCT-21
Chrysene			101.8		%		60-140	06-OCT-21
Dibenz(a,h)anthracene			106.9		%		60-130	06-OCT-21
Fluoranthene			105.7		%		60-130	06-OCT-21
Fluorene			96.5		%		60-130	06-OCT-21
Indeno(1,2,3-cd)pyrene			111.1		%		60-140	06-OCT-21
Naphthalene			80.5		%		50-130	06-OCT-21
Phenanthrene			99.5		%		60-130	06-OCT-21
Pyrene			101.9		%		60-130	06-OCT-21
Quinoline			114.0		%		60-150	06-OCT-21
WG3630929-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	06-OCT-21
2-Methylnaphthalene			<0.020		ug/L		0.02	06-OCT-21
Acenaphthene			<0.020		ug/L		0.02	06-OCT-21
Acenaphthylene			<0.020		ug/L		0.02	06-OCT-21
Acridine			<4.0		ug/L		4	06-OCT-21
Anthracene			<0.020		ug/L		0.02	06-OCT-21
Benzo(a)anthracene			<0.020		ug/L		0.02	06-OCT-21
Benzo(a)pyrene			<0.0050		ug/L		0.005	06-OCT-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	06-OCT-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	06-OCT-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	06-OCT-21
Chrysene			<0.020		ug/L		0.02	06-OCT-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	06-OCT-21
Fluoranthene			<0.020		ug/L		0.02	06-OCT-21
Fluorene			<0.020		ug/L		0.02	06-OCT-21
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	06-OCT-21
Naphthalene			<0.050		ug/L		0.05	06-OCT-21
Phenanthrene			<0.020		ug/L		0.02	06-OCT-21

Quality Control Report

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-CCME-WT	**Water**							
Batch R5611218								
WG3630929-1 MB								
Pyrene			<0.020		ug/L		0.02	06-OCT-21
Quinoline			<0.040		ug/L		0.04	06-OCT-21
Surrogate: Naphthalene d8			92.1		%		60-140	06-OCT-21
Surrogate: Phenanthrene d10			94.7		%		60-140	06-OCT-21
Surrogate: Chrysene d12			94.7		%		50-150	06-OCT-21
Surrogate: Acridine d9			100.2		%		40-130	06-OCT-21
PH-BF	**Water**							
Batch R5603428								
WG3625669-2 DUP		**L2643999-1**						
pH		7.47	7.48	J	pH units	0.01	0.2	27-SEP-21
WG3625669-1 LCS								
pH			7.02		pH units		6.9-7.1	27-SEP-21
SO4-IC-N-WT	**Water**							
Batch R5608304								
WG3630911-4 DUP		**WG3630911-3**						
Sulfate (SO4)		21.1	21.1		mg/L	0.1	20	04-OCT-21
WG3630911-2 LCS								
Sulfate (SO4)			101.2		%		90-110	04-OCT-21
WG3630911-1 MB								
Sulfate (SO4)			<0.30		mg/L		0.3	04-OCT-21
WG3630911-5 MS		**WG3630911-3**						
Sulfate (SO4)			103.2		%		75-125	04-OCT-21
SOLIDS-TDS-BF	**Water**							
Batch R5605832								
WG3625681-3 DUP		**L2643999-1**						
Total Dissolved Solids		364	365		mg/L	0.2	20	29-SEP-21
WG3625681-2 LCS								
Total Dissolved Solids			105.5		%		85-115	29-SEP-21
WG3625681-1 MB								
Total Dissolved Solids			<10		mg/L		10	29-SEP-21
SOLIDS-TSS-BF	**Water**							
Batch R5603579								
WG3625678-3 DUP		**L2643999-10**						
Total Suspended Solids		<2.0	<2.0	RPD-NA	mg/L	N/A	25	27-SEP-21
WG3625678-2 LCS								

Quality Control Report

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SOLIDS-TSS-BF	**Water**							
Batch R5603579								
WG3625678-2 LCS								
Total Suspended Solids			104.8		%		85-115	27-SEP-21
WG3625678-1 MB								
Total Suspended Solids			<2.0		mg/L		2	27-SEP-21
TKN-F-WT	**Water**							
Batch R5610003								
WG3630079-3 DUP		**L2643999-1**						
Total Kjeldahl Nitrogen		0.420	0.420		mg/L	0.0	20	05-OCT-21
WG3630079-2 LCS								
Total Kjeldahl Nitrogen			102.3		%		75-125	05-OCT-21
WG3630079-1 MB								
Total Kjeldahl Nitrogen			<0.050		mg/L		0.05	05-OCT-21
WG3630079-4 MS		**L2643999-1**						
Total Kjeldahl Nitrogen			106.8		%		70-130	05-OCT-21
TOC-WT	**Water**							
Batch R5610528								
WG3630194-3 DUP		**L2645902-30**						
Total Organic Carbon		26.2	26.4		mg/L	0.7	20	05-OCT-21
WG3630194-2 LCS								
Total Organic Carbon			94.4		%		80-120	05-OCT-21
WG3630194-1 MB								
Total Organic Carbon			<0.50		mg/L		0.5	05-OCT-21
WG3630194-4 MS		**L2645902-30**						
Total Organic Carbon			N/A	MS-B	%		-	05-OCT-21
TURBIDITY-BF	**Water**							
Batch R5603433								
WG3625674-3 DUP		**L2643999-1**						
Turbidity		1.36	1.31		NTU	3.7	15	27-SEP-21
WG3625674-2 LCS								
Turbidity			92.2		%		85-115	27-SEP-21
WG3625674-1 MB								
Turbidity			<0.10		NTU		0.1	27-SEP-21
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-4 DUP		**WG3630983-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-4 DUP		**WG3630983-3**						
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	05-OCT-21
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
2-Hexanone		<20	<20	RPD-NA	ug/L	N/A	30	05-OCT-21
Acetone		<20	<20	RPD-NA	ug/L	N/A	30	05-OCT-21
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Bromodichloromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Bromoform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Carbon Disulfide		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	05-OCT-21
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Chloroethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Chloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-OCT-21
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	05-OCT-21
Dibromochloromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Dichlorodifluoromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Dichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	05-OCT-21
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	05-OCT-21
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	05-OCT-21
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
MTBE		<0.50	<0.50		ug/L			05-OCT-21

Quality Control Report

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Oakville ON L6H 0C3
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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-4 DUP		**WG3630983-3**						
MTBE		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	05-OCT-21
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Toluene		<0.40	<0.40	RPD-NA	ug/L	N/A	30	05-OCT-21
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	05-OCT-21
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
Trichlorofluoromethane		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-OCT-21
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-OCT-21
WG3630983-1 LCS								
1,1,1,2-Tetrachloroethane			81.8		%		70-130	05-OCT-21
1,1,2,2-Tetrachloroethane			96.2		%		70-130	05-OCT-21
1,1,1-Trichloroethane			93.5		%		70-130	05-OCT-21
1,1,2-Trichloroethane			90.6		%		70-130	05-OCT-21
1,2-Dibromoethane			87.6		%		70-130	05-OCT-21
1,1-Dichloroethane			90.0		%		70-130	05-OCT-21
1,1-Dichloroethylene			99.0		%		70-130	05-OCT-21
1,2-Dichlorobenzene			93.3		%		70-130	05-OCT-21
1,2-Dichloroethane			107.7		%		70-130	05-OCT-21
1,2-Dichloropropane			97.0		%		70-130	05-OCT-21
1,3-Dichlorobenzene			92.1		%		70-130	05-OCT-21
1,4-Dichlorobenzene			93.6		%		70-130	05-OCT-21
2-Hexanone			84.0		%		60-140	05-OCT-21
Acetone			117.0		%		60-140	05-OCT-21
Benzene			102.0		%		70-130	05-OCT-21
Bromodichloromethane			100.1		%		70-130	05-OCT-21
Bromoform			102.1		%		70-130	05-OCT-21
Bromomethane			81.8		%		60-140	05-OCT-21
Carbon Disulfide			94.8		%		70-130	05-OCT-21
Carbon tetrachloride			93.3		%		70-130	05-OCT-21
Chlorobenzene			93.6		%		70-130	05-OCT-21
Chloroethane			94.5		%		70-130	05-OCT-21

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Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-1 LCS								
Chloroform			98.2		%		70-130	05-OCT-21
Chloromethane			83.0		%		60-140	05-OCT-21
cis-1,2-Dichloroethylene			96.5		%		70-130	05-OCT-21
cis-1,3-Dichloropropene			82.0		%		70-130	05-OCT-21
Dibromochloromethane			88.3		%		70-130	05-OCT-21
Dichlorodifluoromethane			82.9		%		50-140	05-OCT-21
Dichloromethane			102.5		%		70-130	05-OCT-21
Ethylbenzene			86.8		%		70-130	05-OCT-21
m+p-Xylenes			94.0		%		70-130	05-OCT-21
Methyl Ethyl Ketone			103.7		%		60-140	05-OCT-21
Methyl Isobutyl Ketone			92.3		%		50-150	05-OCT-21
n-Hexane			91.1		%		70-130	05-OCT-21
MTBE			106.5		%		70-130	05-OCT-21
o-Xylene			85.9		%		70-130	05-OCT-21
Styrene			84.8		%		70-130	05-OCT-21
Tetrachloroethylene			89.3		%		70-130	05-OCT-21
Toluene			88.1		%		70-130	05-OCT-21
trans-1,2-Dichloroethylene			99.3		%		70-130	05-OCT-21
trans-1,3-Dichloropropene			67.2	MES	%		70-130	05-OCT-21
Trichloroethylene			83.2		%		70-130	05-OCT-21
Trichlorofluoromethane			90.0		%		60-140	05-OCT-21
Vinyl chloride			84.3		%		60-140	05-OCT-21
WG3630983-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	04-OCT-21
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	04-OCT-21
1,1,1-Trichloroethane			<0.50		ug/L		0.5	04-OCT-21
1,1,2-Trichloroethane			<0.50		ug/L		0.5	04-OCT-21
1,2-Dibromoethane			<0.20		ug/L		0.2	04-OCT-21
1,1-Dichloroethane			<0.50		ug/L		0.5	04-OCT-21
1,1-Dichloroethylene			<0.50		ug/L		0.5	04-OCT-21
1,2-Dichlorobenzene			<0.50		ug/L		0.5	04-OCT-21
1,2-Dichloroethane			<0.50		ug/L		0.5	04-OCT-21
1,2-Dichloropropane			<0.50		ug/L		0.5	04-OCT-21
1,3-Dichlorobenzene			<0.50		ug/L		0.5	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-2 MB								
1,4-Dichlorobenzene			<0.50		ug/L		0.5	04-OCT-21
2-Hexanone			<20		ug/L		20	04-OCT-21
Acetone			<20		ug/L		20	04-OCT-21
Benzene			<0.50		ug/L		0.5	04-OCT-21
Bromodichloromethane			<1.0		ug/L		1	04-OCT-21
Bromoform			<1.0		ug/L		1	04-OCT-21
Bromomethane			<0.50		ug/L		0.5	04-OCT-21
Carbon Disulfide			<1.0		ug/L		1	04-OCT-21
Carbon tetrachloride			<0.20		ug/L		0.2	04-OCT-21
Chlorobenzene			<0.50		ug/L		0.5	04-OCT-21
Chloroethane			<1.0		ug/L		1	04-OCT-21
Chloroform			<1.0		ug/L		1	04-OCT-21
Chloromethane			<2.0		ug/L		2	04-OCT-21
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	04-OCT-21
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	04-OCT-21
Dibromochloromethane			<1.0		ug/L		1	04-OCT-21
Dichlorodifluoromethane			<1.0		ug/L		1	04-OCT-21
Dichloromethane			<2.0		ug/L		2	04-OCT-21
Ethylbenzene			<0.50		ug/L		0.5	04-OCT-21
m+p-Xylenes			<0.40		ug/L		0.4	04-OCT-21
Methyl Ethyl Ketone			<20		ug/L		20	04-OCT-21
Methyl Isobutyl Ketone			<20		ug/L		20	04-OCT-21
n-Hexane			0.71	B	ug/L		0.5	04-OCT-21
MTBE			<0.50		ug/L		0.5	04-OCT-21
o-Xylene			<0.30		ug/L		0.3	04-OCT-21
Styrene			<0.50		ug/L		0.5	04-OCT-21
Tetrachloroethylene			<0.50		ug/L		0.5	04-OCT-21
Toluene			<0.40		ug/L		0.4	04-OCT-21
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	04-OCT-21
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	04-OCT-21
Trichloroethylene			<0.50		ug/L		0.5	04-OCT-21
Trichlorofluoromethane			<1.0		ug/L		1	04-OCT-21
Vinyl chloride			<0.50		ug/L		0.5	04-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-2 MB								
Surrogate: 1,4-Difluorobenzene			96.9		%		70-130	04-OCT-21
Surrogate: 4-Bromofluorobenzene			80.6		%		70-130	04-OCT-21
WG3630983-5 MS		**WG3630983-3**						
1,1,1,2-Tetrachloroethane			79.4		%		50-150	05-OCT-21
1,1,2,2-Tetrachloroethane			92.9		%		50-150	05-OCT-21
1,1,1-Trichloroethane			86.9		%		50-150	05-OCT-21
1,1,2-Trichloroethane			90.1		%		50-150	05-OCT-21
1,2-Dibromoethane			87.8		%		50-150	05-OCT-21
1,1-Dichloroethane			84.5		%		50-150	05-OCT-21
1,1-Dichloroethylene			89.5		%		50-150	05-OCT-21
1,2-Dichlorobenzene			90.7		%		50-150	05-OCT-21
1,2-Dichloroethane			104.5		%		50-150	05-OCT-21
1,2-Dichloropropane			94.1		%		50-150	05-OCT-21
1,3-Dichlorobenzene			89.5		%		50-150	05-OCT-21
1,4-Dichlorobenzene			91.2		%		50-150	05-OCT-21
2-Hexanone			82.3		%		50-150	05-OCT-21
Acetone			113.5		%		50-150	05-OCT-21
Benzene			96.6		%		50-150	05-OCT-21
Bromodichloromethane			97.1		%		50-150	05-OCT-21
Bromoform			98.7		%		50-150	05-OCT-21
Bromomethane			86.8		%		50-150	05-OCT-21
Carbon Disulfide			84.8		%		50-150	05-OCT-21
Carbon tetrachloride			86.0		%		50-150	05-OCT-21
Chlorobenzene			90.0		%		50-150	05-OCT-21
Chloroethane			85.4		%		50-150	05-OCT-21
Chloroform			93.5		%		50-150	05-OCT-21
Chloromethane			73.1		%		50-150	05-OCT-21
cis-1,2-Dichloroethylene			91.7		%		50-150	05-OCT-21
cis-1,3-Dichloropropene			97.2		%		50-150	05-OCT-21
Dibromochloromethane			86.7		%		50-150	05-OCT-21
Dichlorodifluoromethane			66.1		%		50-150	05-OCT-21
Dichloromethane			97.1		%		50-150	05-OCT-21
Ethylbenzene			83.5		%		50-150	05-OCT-21
m+p-Xylenes			89.9		%		50-150	05-OCT-21

Quality Control Report

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-ROU-HS-WT	**Water**							
Batch R5609586								
WG3630983-5 MS		**WG3630983-3**						
Methyl Ethyl Ketone			103.3		%		50-150	05-OCT-21
Methyl Isobutyl Ketone			91.0		%		50-150	05-OCT-21
n-Hexane			79.7		%		50-150	05-OCT-21
MTBE			103.6		%		50-150	05-OCT-21
o-Xylene			82.8		%		50-150	05-OCT-21
Styrene			81.7		%		50-150	05-OCT-21
Tetrachloroethylene			84.4		%		50-150	05-OCT-21
Toluene			84.3		%		50-150	05-OCT-21
trans-1,2-Dichloroethylene			92.5		%		50-150	05-OCT-21
trans-1,3-Dichloropropene			91.9		%		50-150	05-OCT-21
Trichloroethylene			78.3		%		50-150	05-OCT-21
Trichlorofluoromethane			79.9		%		50-150	05-OCT-21
Vinyl chloride			73.6		%		50-150	05-OCT-21

Quality Control Report

Workorder: L2643999 Report Date: 08-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

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.
MES	Data Quality Objective was marginally exceeded (by < 10% absolute) for < 10% of analytes in a Multi-Element Scan / Multi-Parameter Scan (considered acceptable as per OMOE & CCME).
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.

Quality Control Report

Workorder: L2643999 Report Date: 08-OCT-21

Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

Hold Time Exceedances:

ALS Product Description	Sample ID	Sampling Date	Date Processed	Rec. HT	Actual HT	Units	Qualifier
Leachable Anions & Nutrients							
Nitrate in Water by IC							
	1	26-SEP-21 10:15	04-OCT-21 11:41	3	8	days	EHT
	2	26-SEP-21 10:15	04-OCT-21 11:41	3	8	days	EHT
	3	26-SEP-21 11:35	04-OCT-21 11:41	3	8	days	EHT
	4	26-SEP-21 12:35	04-OCT-21 11:41	3	8	days	EHT
	5	26-SEP-21 12:35	04-OCT-21 11:41	3	8	days	EHT
	6	26-SEP-21 14:35	04-OCT-21 11:41	3	8	days	EHT
	7	26-SEP-21 15:55	04-OCT-21 11:41	3	8	days	EHT
	8	26-SEP-21 15:55	04-OCT-21 11:41	3	8	days	EHT
	9	26-SEP-21 15:25	04-OCT-21 11:41	3	8	days	EHT
	10	26-SEP-21 15:25	04-OCT-21 11:41	3	8	days	EHT
Glycols							
Glycol Screen							
	1	26-SEP-21 10:15	06-OCT-21	7	10	days	EHT
	1	26-SEP-21 10:15	07-OCT-21 14:00	7	11	days	EHT
	2	26-SEP-21 10:15	06-OCT-21	7	10	days	EHT
	2	26-SEP-21 10:15	07-OCT-21 14:00	7	11	days	EHT
	3	26-SEP-21 11:35	06-OCT-21	7	10	days	EHT
	3	26-SEP-21 11:35	07-OCT-21 14:00	7	11	days	EHT
	4	26-SEP-21 12:35	06-OCT-21	7	9	days	EHT
	4	26-SEP-21 12:35	07-OCT-21 14:00	7	11	days	EHT
	5	26-SEP-21 12:35	06-OCT-21	7	9	days	EHT
	5	26-SEP-21 12:35	07-OCT-21 14:00	7	11	days	EHT
	6	26-SEP-21 14:35	06-OCT-21	7	9	days	EHT
	6	26-SEP-21 14:35	07-OCT-21 14:00	7	11	days	EHT
	7	26-SEP-21 15:55	06-OCT-21	7	9	days	EHT
	7	26-SEP-21 15:55	07-OCT-21 14:00	7	11	days	EHT
	8	26-SEP-21 15:55	06-OCT-21	7	9	days	EHT
	8	26-SEP-21 15:55	07-OCT-21 14:00	7	11	days	EHT
	9	26-SEP-21 15:25	06-OCT-21	7	9	days	EHT
	9	26-SEP-21 15:25	07-OCT-21 14:00	7	11	days	EHT
	10	26-SEP-21 15:25	06-OCT-21	7	9	days	EHT
	10	26-SEP-21 15:25	07-OCT-21 14:00	7	11	days	EHT

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 L2643999 were received on 27-SEP-21 06:00.

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.

Quality Control Report

Workorder: L2643999 Report Date: 08-OCT-21

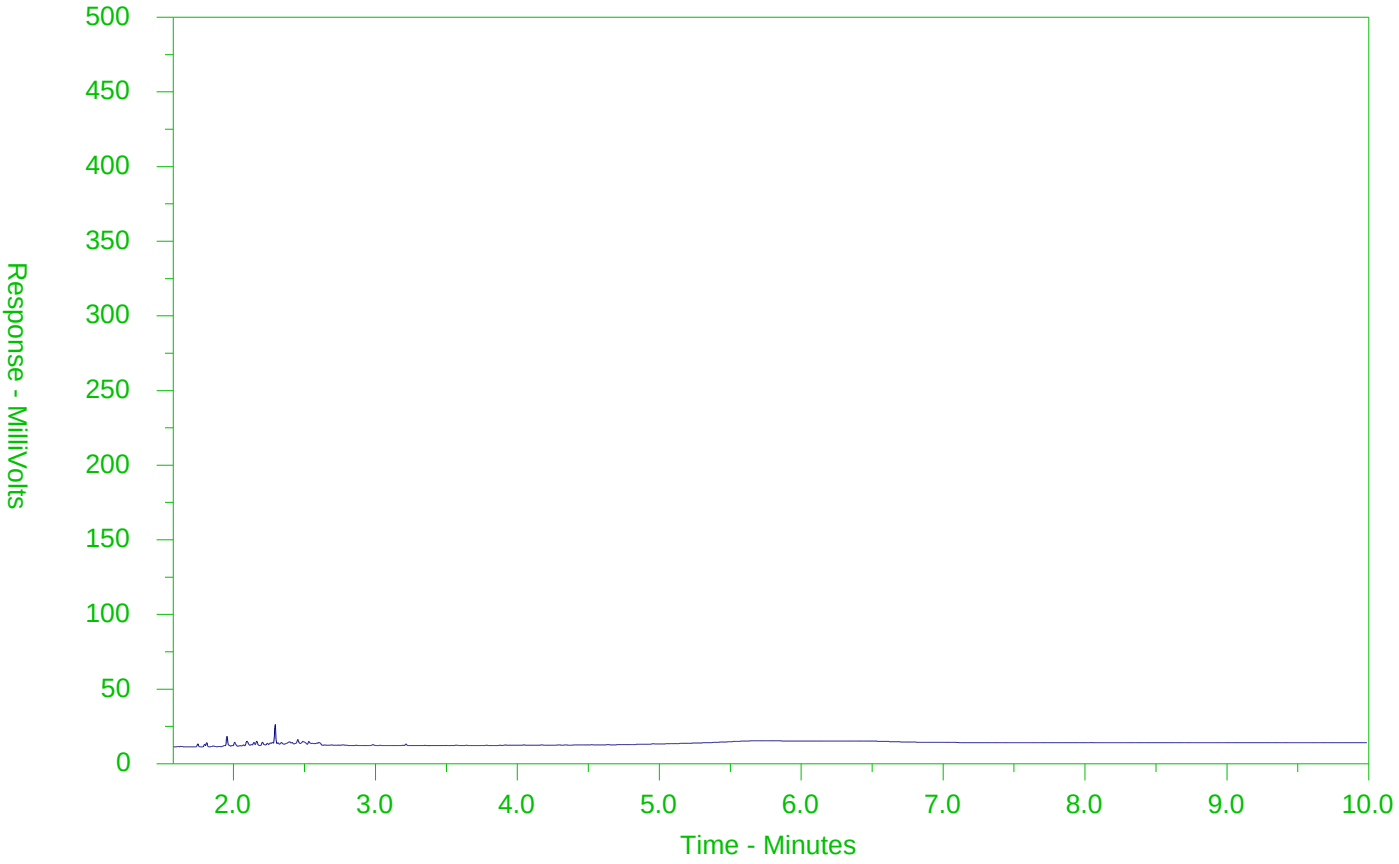
Client: Baffinland Iron Mine's Corporation (Oakville)
2275 Upper Middle Rd. E. Suite #300
Oakville ON L6H 0C3
Contact: Connor Devereaux/Kendra Button

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.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-1
Client Sample ID: MS-HWB-GW-REF3_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
← Diesel/Jet Fuels →			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

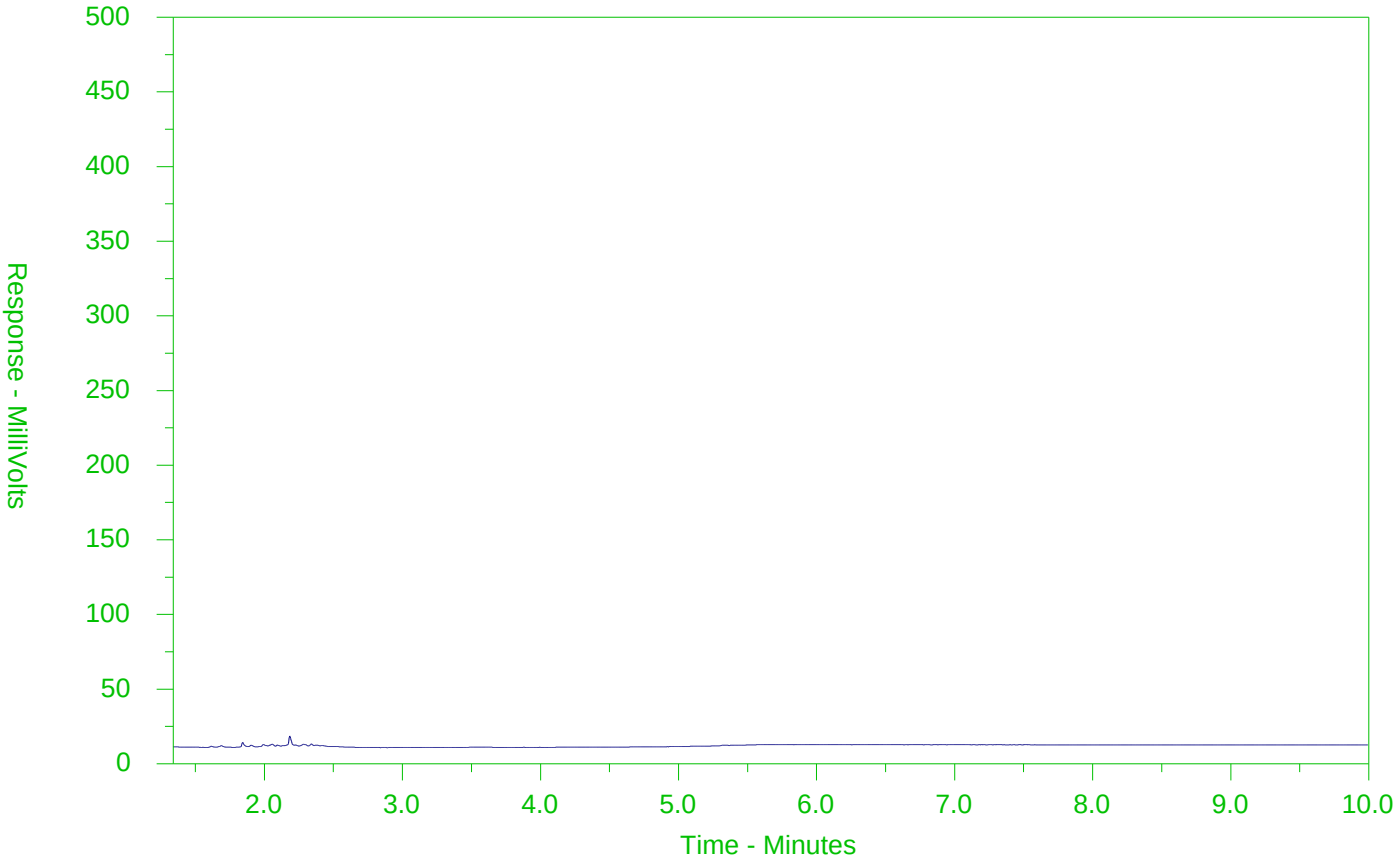
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-2
Client Sample ID: MS-HWB-GW-REF301_2021-09-20



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

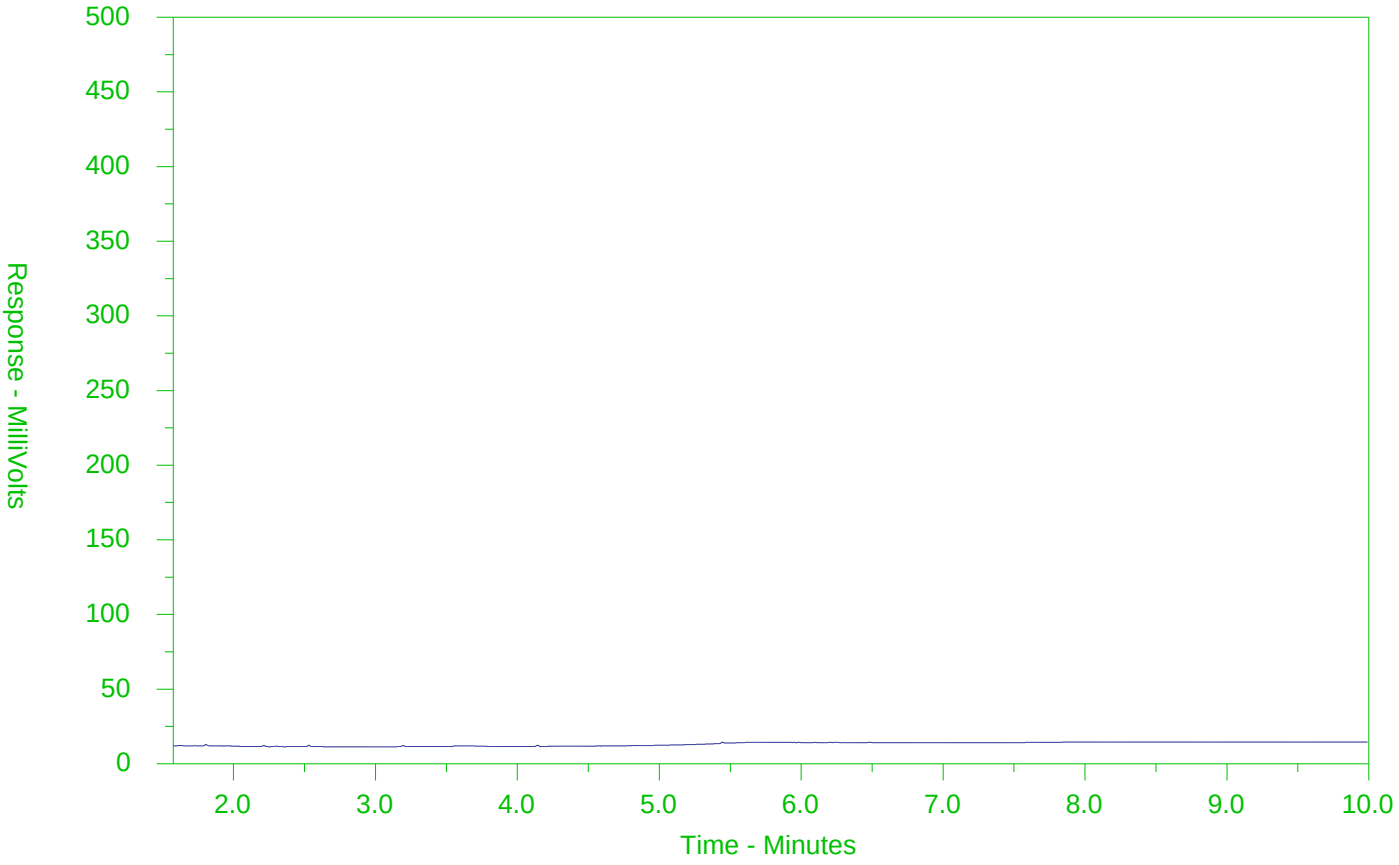
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-3
Client Sample ID: MS-HWB-GW-REF2_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

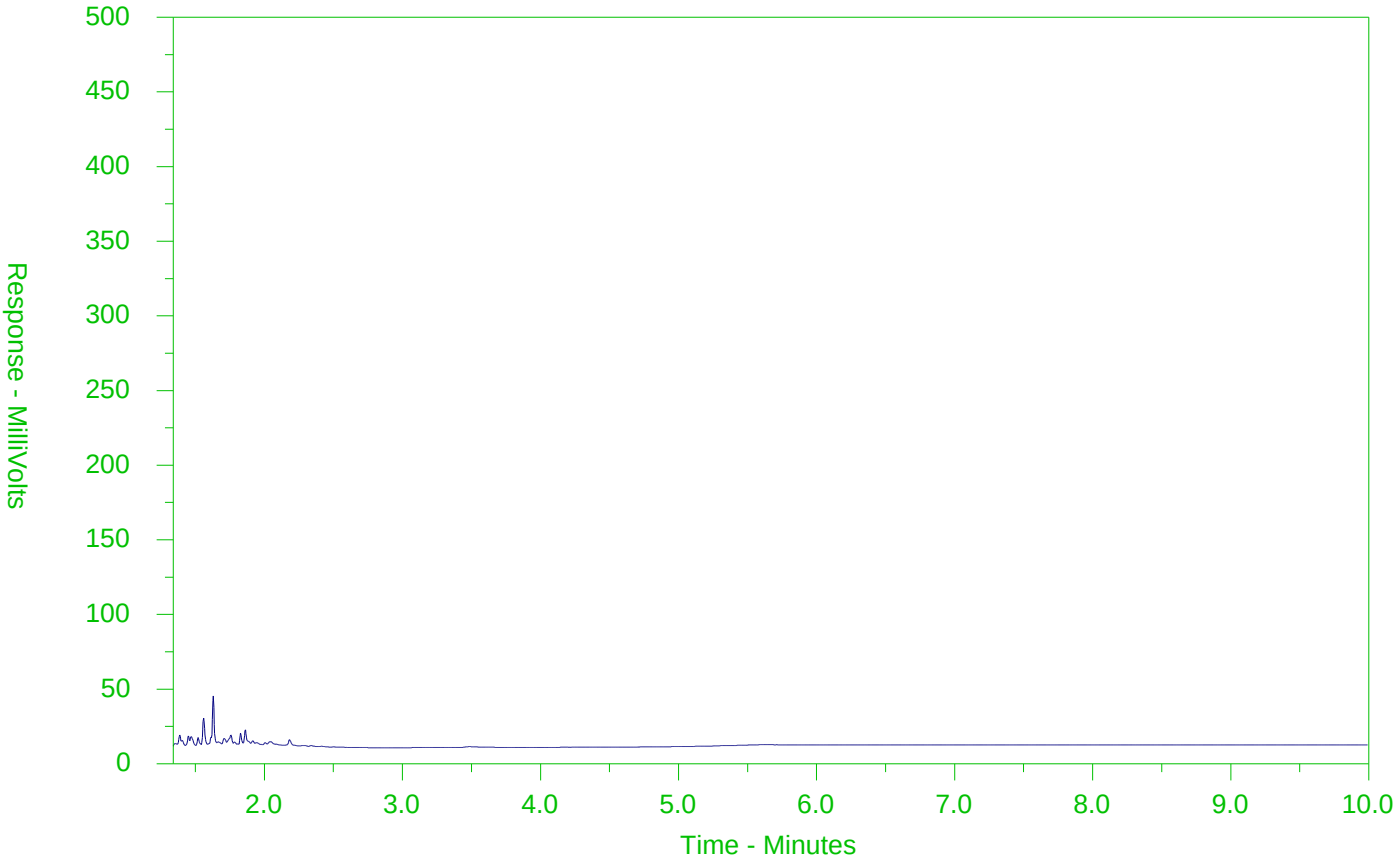
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-4
Client Sample ID: MS-HWB-GW3_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

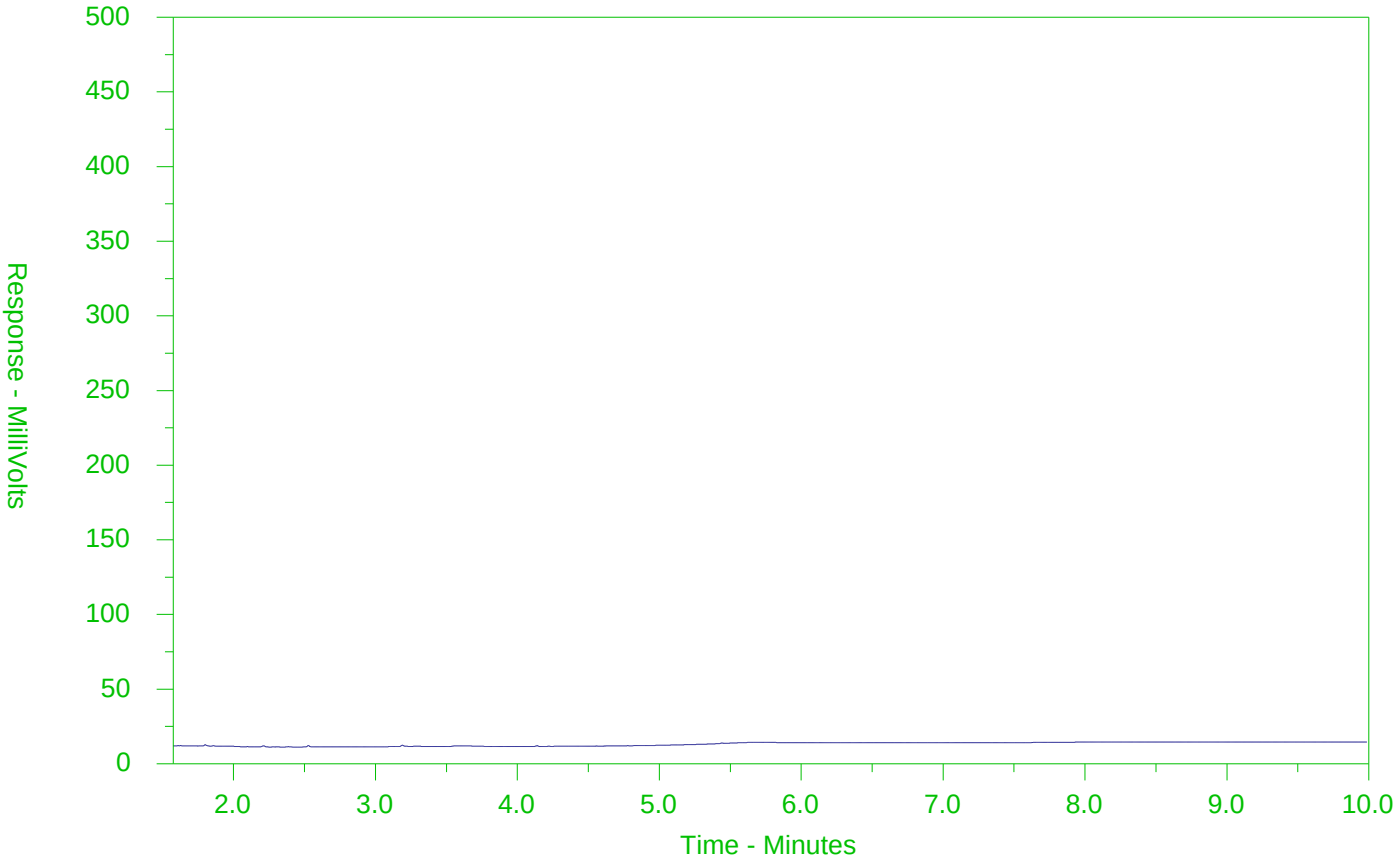
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-5
Client Sample ID: MS-HWB-GW302_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

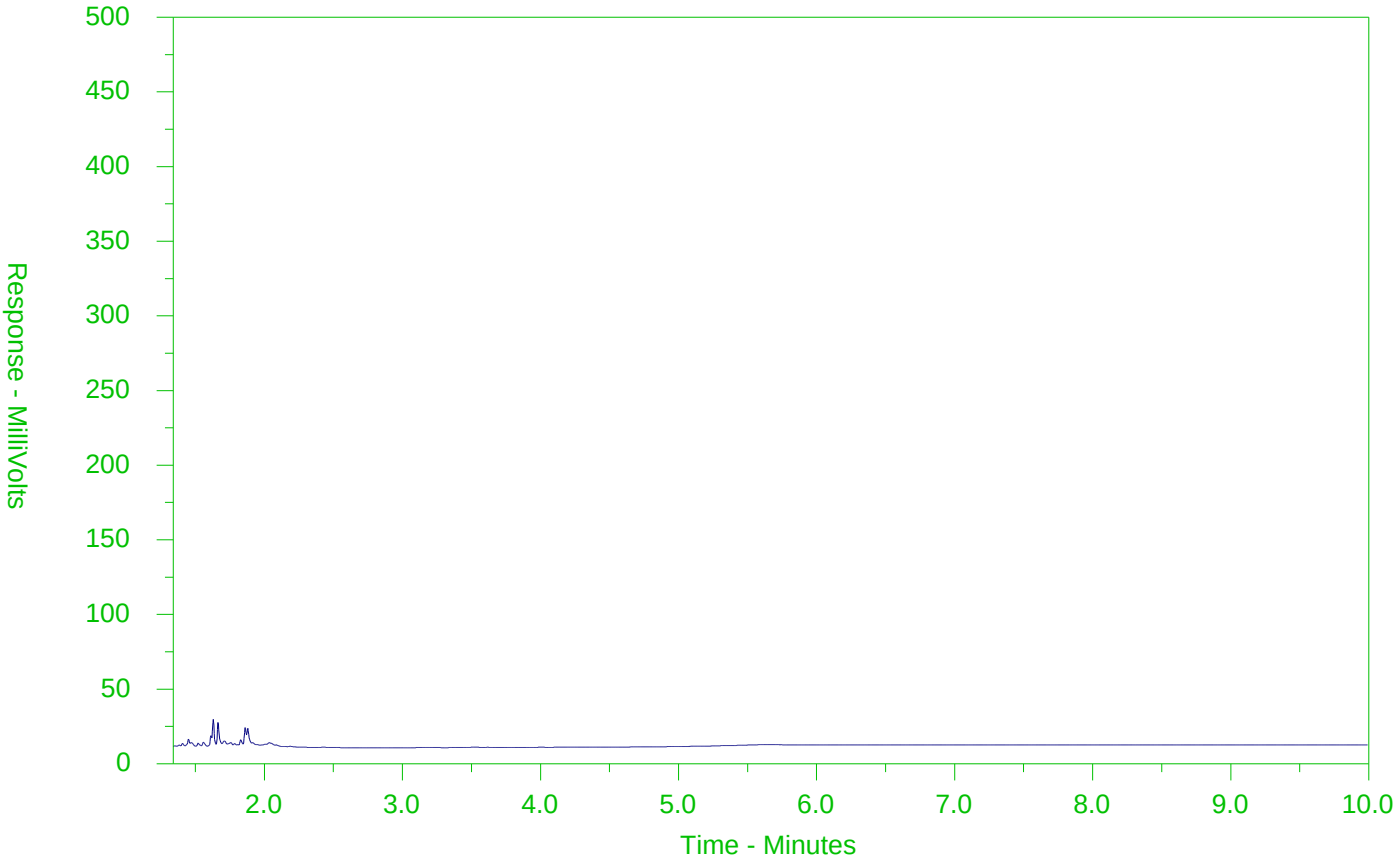
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-6
Client Sample ID: MS-HWB-GW7_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

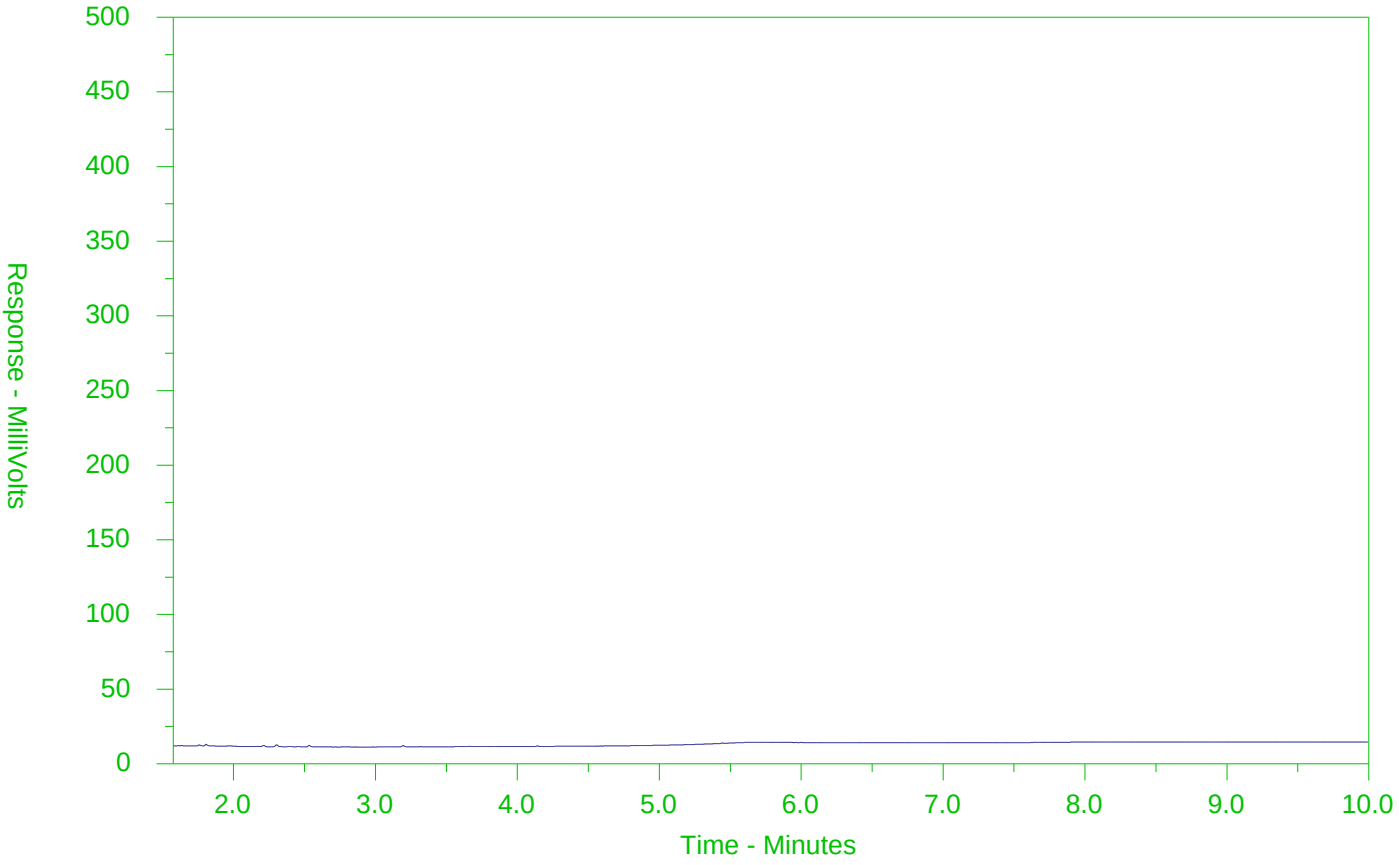
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-7
Client Sample ID: MS-HWB-GW4_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

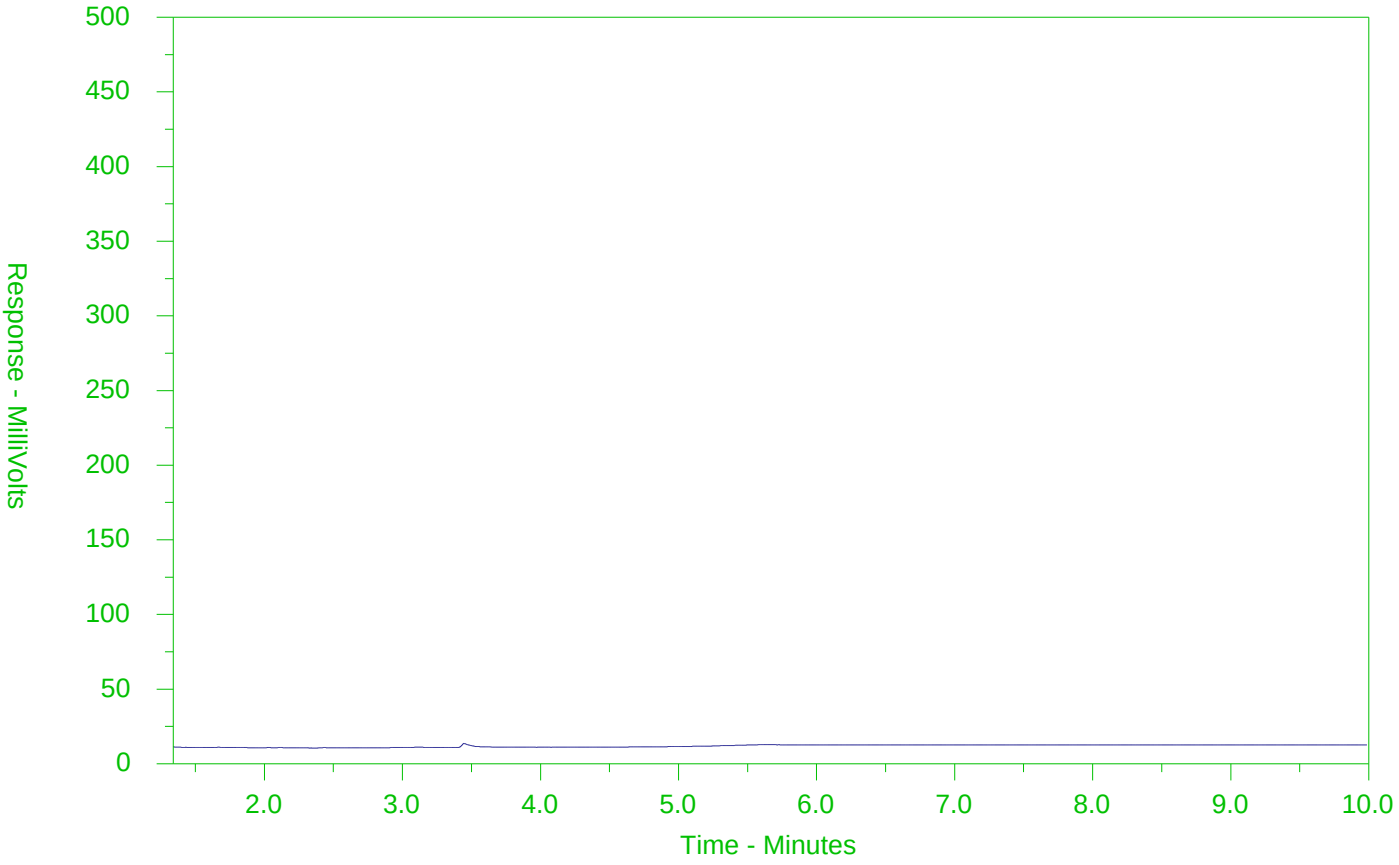
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-8
Client Sample ID: MS-HWB-GW404_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

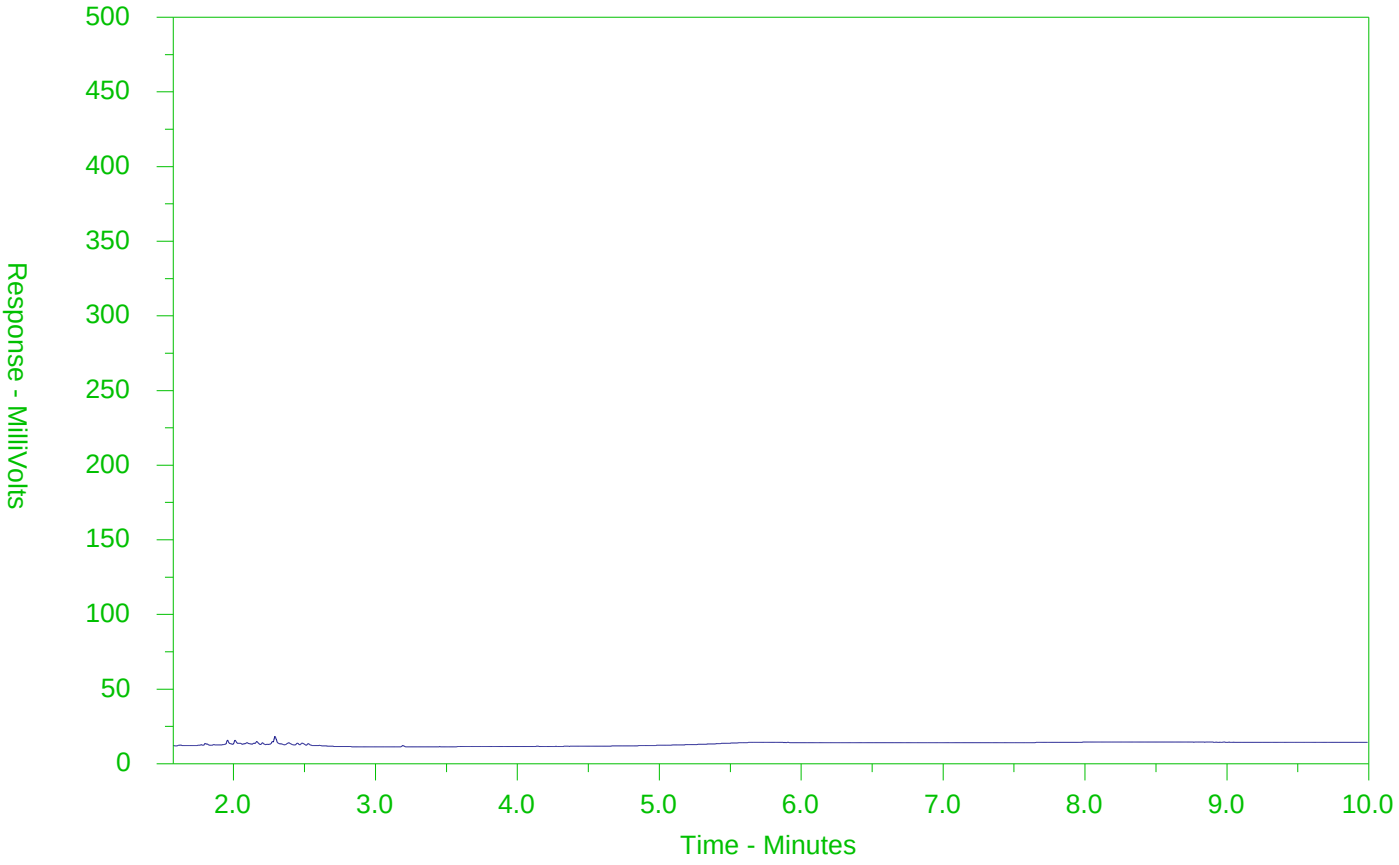
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-9
Client Sample ID: MS-HWB-GW5_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

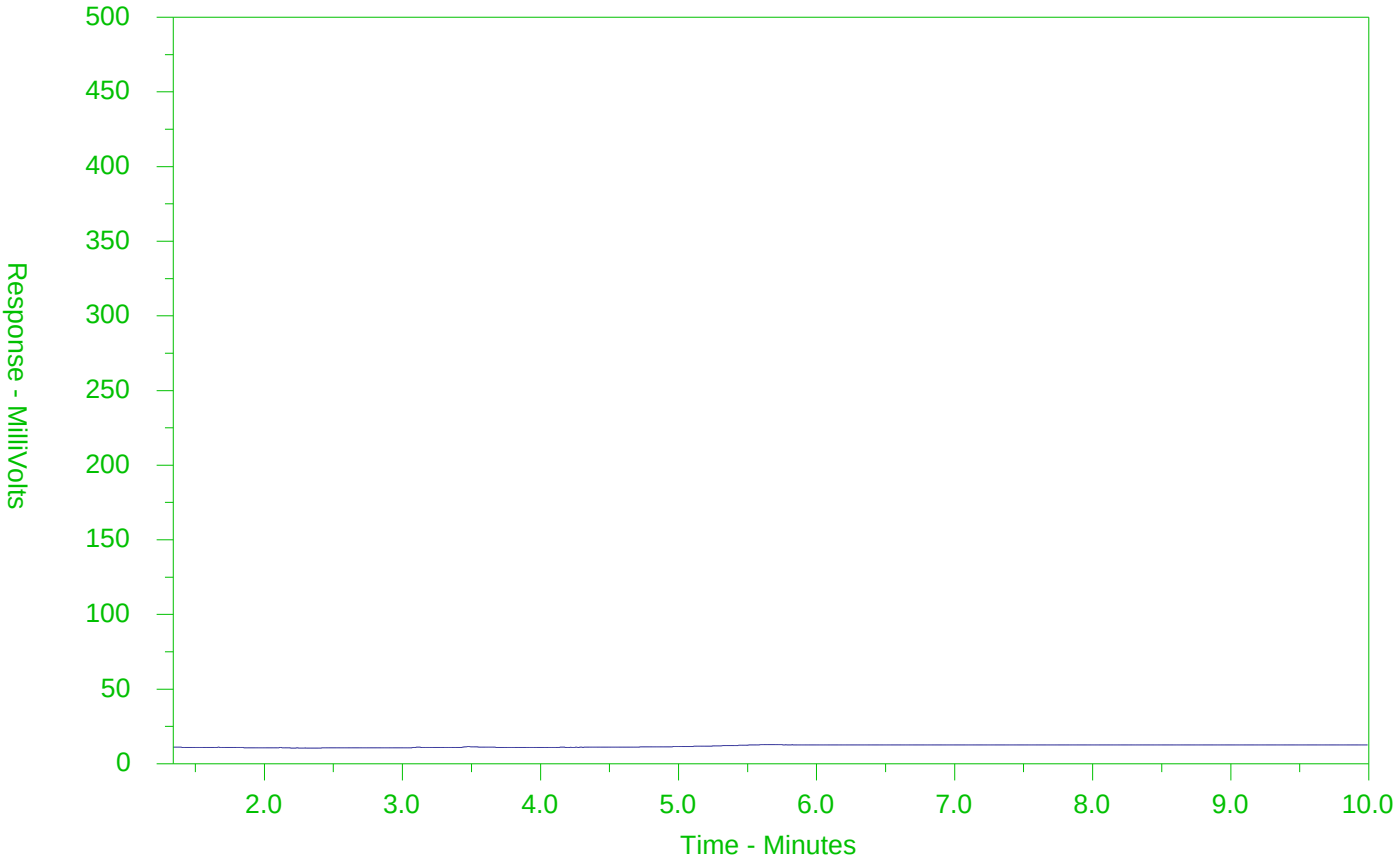
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2643999-10
Client Sample ID: MS-HWB-GW503_2021-09-26



←F2→	←F3→	←F4→	
nC10	nC16	nC34	nC50
174°C	287°C	481°C	575°C
346°F	549°F	898°F	1067°F
Gasoline →		← Motor Oils/Lube Oils/Grease →	
←Diesel/Jet Fuels→			

The CCME F2-F4 Hydrocarbon Distribution Report (HDR) is intended to assist you in characterizing hydrocarbon products that may be present in your sample.

The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

Note: This chromatogram was produced using GC conditions that are specific to ALS Canada CCME F2-F4 method. Refer to the ALS Canada CCME F2-F4 Hydrocarbon Library for a collection of chromatograms from common reference samples (fuels, oils, etc.). The HDR Library can be found at www.alsglobal.com.

L2643999-COFC

Jest Form

COC Number: 20 -

Page 1 of 1

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	Baffinland Iron Mine Corporation
Contact:	Connor Devereaux / Kendra Button
Phone:	647-253-0596
	Company address below will appear on the final report
Street:	2275 Upper Middle Rd E, Suite 300
City/Province:	Oakville, Ontario
Postal Code:	L6H 0C3
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☑ NO
Company:	Baffinland Iron Mine Corporation
Contact:	Accounts Payable

Project Information	
ALS Account # / Quote #:	23642, Q83450
Job #:	HWB Groundwater
PO / AFE:	4500090295
LSD:	
ALS Lab Work Order # (lab use only):	**L2643999**

Reports / Recipients	
Select Report Format:	☑ PDF ☑ EXCEL ☑ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☑ YES ☐ ☐ N/A
☐ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	BIM-ENV-LABRESULTS@baffinland.com
Email 2	bim.equissa@baffinland.com
Email 3	

Invoice Recipients	
Select Invoice Distribution:	☑ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	ap@baffinland.com
Email 2	commercial@baffinland.com

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

ALS Contact:	Sampler:
Rick Hawthorne	JS/MD/SA

Turnaround Time (TAT) Requested

☑ Routine [R] if received by 3pm M-F - no surcharges apply
☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests

Date and Time Required for all E&P TATs:

For tests that can not be performed according to the TAT requested, you will be contacted.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Analysis Request

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

ALS Sample # (lab use only)	Sample Identification (fills automatically) (SYS_SAMPLE_CODE)	Sample Location (SYS_LOC_CODE)	Sampling Date (dd-mmm-yy)	Time (hh:mm)	Field Matrix	NUMBER OF CONTAINERS	Groundwater	Total Glycols	PAH	VOC	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
							P						
1	MS-HWB-GW-REF3_2021-09-26	MS-HWB-GW-REF3	26/Sep/21	10:15	WS	16	R	R	R	R			
2	MS-HWB-GW-REF301_2021-09-20	MS-HWB-GW-REF3	26/Sep/21	10:15	WS	16	R	R	R	R			
3	MS-HWB-GW-REF2_2021-09-26	MS-HWB-GW-REF2	26/Sep/21	11:35	WS	16	R	R	R	R			
4	MS-HWB-GW3_2021-09-26	MS-HWB-GW3	26/Sep/21	12:35	WS	16	R	R	R	R			
5	MS-HWB-GW302_2021-09-26	MS-HWB-GW3	26/Sep/21	12:35	WS	16	R	R	R	R			
6	MS-HWB-GW7_2021-09-26	MS-HWB-GW7	26/Sep/21	14:35	WS	16	R	R	R	R			
7	MS-HWB-GW4_2021-09-26	MS-HWB-GW4	26/Sep/21	15:55	WS	16	R	R	R	R			
8	MS-HWB-GW404_2021-09-26	MS-HWB-GW4	26/Sep/21	15:55	WS	16	R	R	R	R			
9	MS-HWB-GW5_2021-09-26	MS-HWB-GW5	26/Sep/21	15:25	WS	16	R	R	R	R			
10	MS-HWB-GW503_2021-09-26	MS-HWB-GW5	26/Sep/21	15:25	WS	16	R	R	R	R			

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

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

Are samples for human consumption/ use?
☐ YES ☐ NO

Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)

SAMPLE RECEIPT DETAILS (lab use only)

Cooling Method: ☐ NONE ☑ ICE ☐ ICE PACKS ☐ FROZEN ☐ COOLING INITIATED

Submission Comments identified on Sample Receipt Notification: ☐ YES ☐ NO

Cooler Custody Seals Intact: ☐ YES ☐ N/A | Sample Custody Seals Intact: ☐ YES ☐ N/A

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
	5C			7.7			

SHIPMENT RELEASE (client use)		
Released by:	Date:	Time:
Leo McGuire	27-Sep-21	7:19 AM

INITIAL SHIPMENT RECEPTION (lab use only)		
Received by:CV	Date:Sept 27, 2021	Time: 6am

FINAL SHIPMENT RECEPTION (lab use only)		
Received by:	Date: 10/1/21	Time: 1000

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 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**