

Phase Two Environmental Site Assessment



839 and 869 Hurontario Street & 7564 Poplar Sideroad
Collingwood, Ontario
G2S21366B

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Attention: Steve Assaff, President

Executive Summary

G2S Consulting Inc. (G2S) was retained by Charis Developments Ltd. (the Client) to complete a Phase Two Environmental Site Assessment (ESA) for the property located at 839 and 869 Hurontario Street & 7564 Poplar Sideroad in Collingwood, Ontario, hereinafter referred to as the 'Site'. Authorization to proceed with the Phase Two ESA was provided by Mr. Steve Assaff of Charis Developments Ltd.

The rectangular shaped Site is located on the northeast corner of the intersection of Hurontario Street and Poplar Sideroad. Pretty River tributary is located approximately 10 m north, Pretty River is located approximately 830 m east, and Georgian Bay is located approximately 2.7 km north of the Site. The Site is located in an area consisting of residential, commercial and vacant land use. The Site location is illustrated on Drawing 1 in Appendix A.

The Site is currently vacant, undeveloped land. A gravel fill pad is in the centre portion of the Site and was constructed of imported fill in December 2007/January 2008. The Site is approximately 3.5 hectares (8.6 acres) in size, and entrance to the Site is via Poplar Sideroad.

The purpose of the Phase Two ESA was to investigate the environmental conditions of the soil and groundwater in relation to the Areas of Potential Environmental Concern (APECs) identified during a Phase One ESA Update completed by G2S, to confirm a previous data set, and to satisfy a lease agreement with Parkland Fuels, prior to development. Refer to Drawing 2 in Appendix A for the APECs.

The investigation was completed concurrently with a Geotechnical Investigation, reported under separate cover. The drilling for the Geotechnical Investigation and Phase Two ESA consisted of the advancement of twenty-three boreholes, three of which were completed as groundwater monitoring wells. Nine of the boreholes (including all three monitoring wells) were used for environmental purposes and are discussed throughout this report; data for the remaining fourteen boreholes are included in the geotechnical report. Refer to Drawing 3 for the Borehole and Monitoring Well Location Plan.

The findings of this assignment are summarized as follows:

1. In general, the subsurface conditions comprised fill materials (to depths of up to 1.6 m bgs) over native silt/clayey silt and silty sand till. Refer to the borehole logs in Appendix B.
2. Groundwater was found in two of the monitoring wells on November 3, 2021, at elevation 194.93 to 194.99 m (geodetic). The third monitoring well had a groundwater elevation of 195.95, which is above the ground surface.
3. The Site is subject to two Ministry of Environment, Conservation, and Parks (MECP) Site Condition Standard (SCS) due to the proximity of the north portion of the Site to a tributary of Pretty River. The north portion of the Site is subject to the Table 8 SCS, and the remainder of the Site is subject to the Table 2 SCS.
4. Soil samples were submitted for chemical testing of petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene, xylenes (BTEX), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and metal and inorganics parameters.

The tested soil met the applicable MECP Table 2 and/or Table 8 industrial/commercial/community (ICC) SCS.

5. Groundwater samples from the monitoring wells were submitted for chemical testing of PHCs including BTEX, VOCs, and metal parameters. The tested groundwater met the MECP Table 2 SCS.

Based on the findings of this Phase Two ESA, the soil and groundwater in the areas tested meets the applicable MECP Table 2 ICC and/or Table 8 SCS. In this regard, no further investigation is recommended at this time.

Should a Record of Site Condition (RSC) be required for the Site, further investigation may be required to satisfy the requirements of O.Reg. 153/04. RSCs are generally required with a change in land use to a more sensitive use, and in some instances, with an application for a building permit.

In accordance with O. Reg. 903/90, as amended, the monitoring wells should be decommissioned if the wells are not in use or being maintained for future use. G2S would be pleased to assist in this regard.

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1. Introduction

G2S Consulting Inc. (G2S) was retained by Charis Developments Ltd. (the Client) to complete a Phase Two Environmental Site Assessment (ESA) for the property located at 839 and 869 Hurontario Street & 7564 Poplar Sideroad in Collingwood, Ontario, hereinafter referred to as the 'Site'. Authorization to proceed with the Phase Two ESA was provided by Mr. Steve Assaff of Charis Developments Ltd.

The purpose of the Phase Two Environmental Site Assessment (ESA) was to investigate the environmental condition of the soil and groundwater on-Site in relation to the identified Areas of Potential Environmental Concern (APECs) identified during a Phase One ESA Update completed by G2S. The work was completed in accordance with the general requirements of Ontario Regulation 153/04 and CSA Standard Z769-00, 'Phase Two Environmental Site Assessment', which outlines the protocol for Phase Two ESAs.

1.1 Site Description

The Site Location is illustrated on Drawing 1 in Appendix A.

Table 1: General Site Details

Municipal Address	839 and 869 Hurontario Street & 7564 Poplar Sideroad, Collingwood, Ontario
General Site Location	Northeast corner of the intersection Hurontario Street and Poplar Sideroad. Pretty River tributary is located approximately 10 m north, Pretty River is located approximately 830 m east, and Nottawasaga Bay is located approximately 2.7 km north.
Approximate Site Area	3.5 hectares (8.6 acres)
Property Identification Number (PIN)	839 Hurontario Street: 58262-0078 (LT) 869 Hurontario Street: 58262-0787 (LT) 7564 Poplar Sideroad: 58262-0576 (LT)
Legal Description	839 Hurontario Street: PT S1/2 LT 40 CON 8 NOTTAWASAGA AS IN RO515907 (SECONDLY); COLLINGWOOD. 869 Hurontario Street: PT S1/2 LT 40 CON 8 NOTTAWASAGA BEING PTS 1 & 2 IN RO515907 (SECONDLY); COLLINGWOOD. 7564 Poplar Sideroad: PT S1/2 LT 40 CON 8 NOTTAWASAGA PT 1 51R3533 EXCEPT PT 1 51R4531 & EXCEPT PT 4 51R37017; COLLINGWOOD.
Current Site Owner	839 Hurontario Street: Assaff Investments Ltd. 869 Hurontario Street and 7564 Poplar Sideroad: Charis Developments Ltd.
Current Site Occupant	Vacant, undeveloped land. 839 and 869 Hurontario Street have never been developed, and 7564 Poplar Sideroad was historically developed with a residential home from approximately 1900-2007, when the building was demolished.

1.2 Applicable Site Condition Standards

The assessment criteria applicable to a given site in Ontario are provided in the Ministry of the Environment Conservation and Parks (MECP) document entitled “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act”, dated April 15, 2011.

Standards are provided in Tables 1 to 9 in the document. These standards are based on site sensitivity, groundwater use, property use, soil type, and restoration depth.

For this investigation, G2S has selected the Table 2 Site Condition Standards (SCS) for Industrial/Commercial/Community (ICC) in a Potable Groundwater Condition with medium-fine textured soil, and the Table 8 SCS for Residential/Parkland/Institutional/Industrial/Commercial/Community Property Use within 30 m of a water body, with medium-fine textured soil. Table 8 SCS were used for the portion of the Site located at 839 Hurontario Street, located within 30 m of Pretty River tributary, and Table 2 SCS were used for the remainder of the Site. The selection of this category is based on the following factors:

- There is no intention to carry out stratified restoration at the Site.
- Based on field observations and grain size analysis completed as part of the Geotechnical Investigation reported under separate cover, the soil texture on the Site is medium-fine texture.
- The intended use of the Site is commercial/industrial.
- A portion of the Site is located within 30 metres of a water body. Refer to Drawing 3 in Appendix A for an inferred 30 m setback line from the Pretty River tributary.
 - 839 Hurontario Street is located within 30 m of Pretty River tributary and encompasses borehole BH104.
 - 869 Hurontario Street and 7564 Poplar Sideroad are located at a distance greater than 30 m from Pretty River tributary, and encompass boreholes BH102, BH/MW105, BH108, BH109, BH/MW110, BH112, BH117, and BH/MW122.
- The Site is not considered a sensitive site based on:
 - The pH values are within the recommended range of 5 to 9 for surface soil (<1.5 m) and within 5 to 11 for subsurface soil (>1.5 m).
 - The Site is not located within or is adjacent to an Area of Natural Significance.
- Based on the findings from the Phase Two ESA, the following can be confirmed with respect to Sections 41 and 43.1 of O.Reg. 153/04:
 - The Site is not a shallow soil property, as defined in Section 43.1 of O.Reg. 153/04.
 - The Site is not an environmentally sensitive site as defined in Section 41 of O.Reg. 153/04.

- The potable groundwater condition applies to the Site based on:
 - The Site and properties within 250 m of the Site are supplied with potable water which is sourced from Georgian Bay. The water is supplied via a network comprising a treatment plant, an elevated storage tank, a series of reservoirs and booster stations.

2. Background Information

2.1 Physical Setting

The Site is located at approximately 195 to 197 m above sea level. Surface elevations appear to decrease generally north to northeastern, towards Nottawasaga Bay located approximately 2.7 km north, and surface drainage and shallow groundwater most likely discharges into Pretty River and its tributaries.

G2S reviewed the Palaeozoic Geology of Southern Ontario, Map 2254, Ontario Division of Mines and the Soil Associations of Southern Ontario Soil Map. The geological maps reviewed indicate the Site and surrounding area are characterized by sandy loam underlain by grey shale with limestone interbeds of the Upper Ordovician, Georgian Bay (Carlsbad and Russell) Formation.

2.2 Past Investigations

Report Details	Summary
Title: Fill Investigation, 869 Hurontario Street, Collingwood, Ontario Date of Report: October 29, 2014 Author of the Report: Terraprobe Inc. Completed for: Georgian International Land Corp.	- During the Site visit as part of a Phase One ESA completed for the Site, it was noted that a significant amount of fill material was brought to the Site in December 2007/January 2008, for grading. - A fill investigation was recommended to determine the chemical quality of the soil on Site. - On September 23, 2014, ten boreholes were advanced through the existing fill pad on Site, to depths of 3.5 m below ground surface (bgs). Soil samples collected from the boreholes were submitted for analysis of petroleum hydrocarbons including benzene, toluene, ethylbenzene, and xylenes (PHCs and BTEX), and metals and inorganics. - Soils were identified as sandy silt to silty sand and gravelly sand fill underlain by native clayey silt with trace sand. Minor debris materials and occasional cobbles were encountered in the upper fill soils. No staining or odours were encountered in any of the samples. - All samples were compared to the Table 2 MECP full depth generic Site Condition Standards (SCS) for industrial/commercial/community (ICC) land use. No exceedances were identified. - Further environmental investigation was not recommended.
Title: Phase One Environmental Site Assessment (ESA), 869 Hurontario Street and 7564 Poplar Sideroad, Collingwood, Ontario Date of Report: November 7, 2014 Author of the Report: Terraprobe Inc. Completed for:	- At the time of the report, the Site was undeveloped, vacant land. - The report indicated that 869 Hurontario Street had never been developed. According to a Site Assessment by Jacques Whitford (2007), the east portion of the Site (7564 Poplar Side Road) was previously occupied by a two-storey residential dwelling that had been removed at the time of the Phase One ESA in 2014. The dwelling was developed in the early 1900s. - Imported fill was located at the central portion of the property for grading purposes. The fill was brought to the site in previous years (appeared in a 2008 aerial photograph). - Properties within the Study Area were developed with residential and commercial properties, including: • 850 Hurontario Street (~30 m west) - Marty's Transmission and Walkers Small Motors Ltd. (PCA #57: Garage and Maintenance/repairs of vehicles) • 864 Hurontario Street (~30 m west) - Tilley of Canada Ltd. and

Report Details	Summary
Georgian International Land Corp.	John Brown Custom Sporting (PCA #54 – Textile Manufacturing, Processing, and Use) 833 Hurontario Street (~45 m north) – Diane’s Garden Centre - Two spills were indicated and included gas main damage at 47 Hughes Street and a 200 L diesel oil spill at County Road 124 and Poplar Sideroad. No environmental impacts were anticipated. - Groundwater flow was anticipated to be in a northeastern direction, towards Nottawasaga Bay, and surface drainage and shallow groundwater was expected to discharge into Pretty River and its tributaries. - Due to the fill materials encountered during the Site visit, Terraprobe conducted a fill investigation (summarized above) to address the unknown quality of the fill material. Ten boreholes were advanced in the fill and submitted for chemical testing. All samples met the Table 2 MECP standards for Industrial/Commercial/Community land use. - The following PCAs were identified on Site and within the Study Area: 869 Hurontario Street and 7564 Poplar Sideroad (Site): PCA #30 Importation of Fill Material of Unknown Quality 850 Hurontario Street (~30 m west): PCA #57: Garage and Maintenance/repairs of vehicles 864 Hurontario Street (~30 m west): PCA #54: Textile Manufacturing and Processing - As a result of the fill investigation and direction and distance of the PCAs within the Study Area to the Site, a Phase Two ESA was not recommended.
Title: Geotechnical Investigation Proposed Home Hardware Store, Collingwood, Ontario Date of Report: December 15, 2003 Author of the Report: Shaheen & Peaker Limited Completed for: Home Hardware Stores Limited	- The Geotechnical Investigation was completed in December 2003 and was required as part of the redevelopment process, which included a proposed Home Hardware Store. - On December 3, 2003, 11 boreholes were advanced on Site to a maximum of 5 m bgs. - Soil samples indicated a topsoil layer covered the entire Site with an approximate 300 to 400 mm thickness. A clayey silt deposit was identified under the topsoil to approximately 3 bgs. Silt was encountered beneath the clayey silt at thicknesses ranging from 0.5 m to 1.5 m. Silt till with some sand, some to trace clay, and some gravel was encountered beneath the silt layer in the deeper boreholes. - Groundwater levels were taken immediately post drilling activities. All boreholes were dry upon completion except for BH1, BH4, and BH5. Water levels were indicated at 1.3 m bgs in BH1, and BH4 and BH5 were filled with water to the ground surface due to ponded water.

G2S also completed a Phase One ESA Update for the Site, entitled:

Phase One Environmental Site Assessment Update, 839 and 869 Hurontario Street & 7564 Poplar Sideroad, Collingwood, Ontario.

The Phase One ESA Update identified one on-Site and three off-Site PCAs which were assessed based on observations of the operations, their location relative to the Site with respect to the inferred groundwater flow direction, their tenure, and expected chemical storage amounts. Based on review and evaluation of the information gathered, the following APECs have been identified:

- APEC 1: Central portion of Site – Current and historical presence of a fill pad of unknown chemical quality fill materials, and the potential for fill materials to be present across the remainder of the Site. Chemical data from 2014 requires confirmation due to the time elapsed.
- APEC 2: Southwest portion of Site – Current use of the property located approximately 30 m west (7618 Poplar Sideroad) as a gasoline service station.

Based on the findings of the Phase One ESA Update, a Phase Two ESA was recommended to investigate the potential for contamination related to the above-noted APECs.

3. Scope of the Investigation

3.1 Overview of Site Investigation

The purpose of the Phase Two ESA was to investigate the environmental conditions of the soil and groundwater in relation to the Areas of Potential Environmental Concern (APECs) identified during a Phase One ESA Update completed by G2S, to confirm the previous data set, and to satisfy a lease agreement with Parkland Fuels, prior to development.

The investigation was completed concurrently with a Geotechnical Investigation, reported under separate cover. The drilling for the Geotechnical Investigation and Phase Two ESA consisted of the advancement of twenty-three boreholes, three of which were completed as groundwater monitoring wells. Nine of the boreholes (including the three monitoring wells) were used for environmental purposes and are discussed throughout this report; data for the remaining fourteen boreholes are included in the geotechnical report. Refer to Drawing 3 for the Borehole and Monitoring Well Location Plan.

3.2 Scope of Work

The scope of work for this assignment included the following:

- The locating of underground utilities by both public and private utility locators.
- The drilling of nine boreholes on-Site for environmental purposes, three of which were completed as groundwater monitoring wells.
- The collection of representative soil samples from the boreholes for chemical testing for the contaminants of concern, namely petroleum hydrocarbon (PHC) fractions F1 to F4, including benzene, toluene, ethylbenzene, and xylenes (BTEXs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and metals and inorganics.
- Groundwater level monitoring and the collection of groundwater samples in newly installed monitoring wells for analysis of PHCs including BTEX, VOCs, and metals.
- Data compilation and evaluation of the information gathered, and
- Preparation of this report, discussing the information compiled and the corresponding conclusions and recommendations.

4. Investigation Method

4.1 General

The locations of underground utilities were identified and marked by public locating companies as well as a private utility locating contractor.

4.2 Drilling

The drilling for this assignment was conducted on September 30, 2021, October 1, 2021, October 21, and October 22, 2021. A total of nine boreholes (BH) were advanced for environmental purposes, and labelled as BH102, BH104, BH105, BH108, BH109, BH110, BH112, BH117, and BH122.

The field work was completed by Davis Drilling Ltd. (Davis) and London Soil Test Ltd. (LST). The boreholes were advanced with a track-mounted CME 45 (Davis) drill rig or a Dietrich D50 (LST) drill rig, to depths between 2.1 and 8.2 m bgs. Soil samples were obtained at regular depth intervals. Groundwater monitoring wells (MW) were installed in three of the boreholes (BH105, BH110, and BH122) and identified as BH/MW105, BH/MW110, and BH/MW122, respectively.

The approximate borehole/monitoring well locations are shown on the Borehole and Monitoring Well Location Plan, Drawing 3, in Appendix A.

4.3 Soil Sampling

During the field work, soil samples in the boreholes were collected using split spoon samplers. G2S staff continually monitored the field activities to log the recovered soil cores/samples, to record the depth of soil sample collection and total depths of the boreholes. Field observations recorded on the borehole logs are included in Appendix B.

The soil samples were field logged and placed in laboratory provided airtight glass containers and/or vials containing methanol preservative and stored in an insulated cooler with ice for transportation to our laboratory for additional examination. As well, a portion of each sample was placed in a sealed plastic bag for vapour screening. Particular attention was applied to visual and olfactory evidence of potential contamination such as odours and staining during the field work.

The soil sampling and sample handling procedures were carried out according to the supporting documents of O. Reg. 153/04, as amended and established standards.

4.4 Field Screening Measurements

Organic vapour readings were recorded using a RKL Eagle 2 gas detector, equipped with a Photo Ionization Detector (PID) sensor, calibrated to isobutylene and a catalytic combustible gas sensor, calibrated to hexane. The PID sensor detects low level VOCs in parts per million (ppm) and the catalytic combustible gas sensor detects PHCs in ppm or lower explosive limit (LEL). The accuracy of the gas monitor varies with the type of gas being measured.

The correlation between combustible vapour concentrations and PHCs in soil is highly dependent on the soil type, moisture content and characteristics of the contaminant of concern. The results of the screening are used as a tool in establishing relative soil vapour concentrations and for selection of soil samples for chemical analysis among samples and borehole locations.

The organic vapour readings were measured by inserting the instrument's probe into the headspace of the plastic bag and manipulating the soil sample by hand. There are no regulatory criteria for soil vapours; however, organic vapour readings provide a general indication of the relative concentration of organic vapours encountered in the soil samples during drilling.

4.5 Groundwater Monitoring Well Installation

Groundwater monitoring wells were installed in boreholes BH105, BH110, and BH122, identified as BH/MW105, BH/MW110, and BH/MW122, respectively. The monitoring wells were installed in accordance with the Ontario Water Resources Act – R.R.O. 1990, Regulation 903 – amended to O. Reg. 128/03, and were installed by a licensed well contractor (Davis).

The monitoring wells were installed to depths between 4.65 and 5.32 m bgs. The monitoring wells were constructed using 50-millimetre (mm) diameter, number 10 slot Schedule 40 PVC screen and PVC riser pipe, completed with 3.0 m long screens, and sealed at the base with PVC end caps and an appropriate length of riser pipe extending to just below the stick-up casing. All pipe connections were threaded flush joints with no lubricants or adhesives used in the construction of the monitoring wells. Details of the completion of the monitoring wells are provided on the borehole logs in Appendix B. The annular space around the well screens in the wells were backfilled with silica sand to an approximate height of 0.6 m above the top of the screen. The sand pack was extended above the screens to allow for compaction of the sand pack and expansion of the overlying well seals. A granular bentonite ('Hole Plug') seal was placed in the borehole annulus from the top of the sand pack to just below the stick-up casing. The monitoring wells were completed with stick-up protective steel casings cemented in place.

The Site owner is considered to be the owner of the monitoring wells installed by Davis ("well owner" Section 1.0, Regulation 903). When the monitoring wells are no longer required, it is the owner's responsibility to arrange for abandonment in accordance with Ontario Water Resources Act–R.R.O. 1990, Regulation 903 – Amended to O. Reg. 128/03.

4.6 Groundwater Sampling

On October 13, 2021, G2S attended the Site to record the groundwater levels, develop and purge the groundwater in the monitoring wells, and to collect groundwater samples for chemical testing. G2S returned to the Site on November 3, 2021, to collect a second round of groundwater levels.

An electronic water level metre was used to record the depth of groundwater in the monitoring wells. Dedicated bailers were installed in each of the monitoring wells for purging and dedicated low-density polyethylene (LDPE) tubing was installed in each of the monitoring wells for sample collection with a low flow peristaltic pump. Well development included the removal of a minimum of three well volumes or until the wells were dry in accordance with fixed volume and well evacuation purging procedures as outlined in ASTM D6452 99 (2012). The electronic water level metre was rinsed with a mild detergent, distilled water, and methanol between monitoring wells to prevent cross-contamination.

The groundwater samples were field logged and placed in clean, laboratory provided bottles, stored in an insulated cooler on ice and returned to our laboratory where the samples were temporarily preserved in a fridge to maintain a cool environment, or were delivered directly to the laboratory. Particular attention was applied to visual and olfactory evidence of potential contamination such as odours and sheens during the field work.

The groundwater sampling and sample handling procedures were carried out according to the supporting documents of O. Reg. 153/04, as amended and established standards.

4.7 Analytical Testing

Selected soil and groundwater samples were submitted for chemical analysis under chain of custody protocols to ALS Environmental (ALS) or Paracel Laboratories, both Canadian Association for Laboratory Accreditation Inc. (CALA) accredited laboratories. The chemical analyses conducted by ALS were in accordance with the O. Reg. 153/04 Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act dated March 9, 2004, amended as of July 1, 2011.

The soil samples were analyzed for the contaminants of concern (COC), namely petroleum hydrocarbon (PHC) fractions F1 to F4, including benzene, toluene, ethylbenzene, and xylenes (BTEXs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and/or metals and inorganics.

The groundwater samples were analyzed for PHCs including BTEX, VOCs, and metals.

4.8 Residue Management Procedures

Soil cuttings generated during drilling and purged groundwater from the monitoring wells were stored on-Site in sealed steel drums, pending the results of chemical testing. The drums can be removed off-Site by a licenced waste disposal subcontractor once no longer required.

4.9 Elevation Surveying

The borehole/monitoring well locations were selected and established in the field by G2S, and ground surface elevations were determined by G2S. A topographic survey completed by J.D. Barnes Limited on September 9, 2021, was provided to G2S for reference. The ground surface elevations were inferred by G2S from the topographic survey.

4.10 Quality Assurance/Quality Control Measures

Disposable nitrile gloves (one per sample) were used during sample collection. Sample cores for analysis of volatiles were collected using a 5-gram Terra Core sampler. The soil cores were immediately placed into a Methanol Vial (pre-filled and weighed with 10 mL Purge & Trap Grade Methanol).

New laboratory-supplied glass jars with Teflon-lined lids were filled with a portion of each soil sample. The jars and vials were then sealed and placed in a cooler with ice packs for storage and transportation. ALS supplied all the soil jars and Paracel supplied all the groundwater bottles, with preservatives when required.

5. REVIEW AND EVALUATION

5.1 Geology

Reference is made to the appended Drawing 3 in Appendix A and Borehole Logs in Appendix B for details of the field work including sampling locations, visual soil classification, inferred stratigraphy, groundwater observations, and monitoring well installation details.

The boundaries indicated on the borehole logs are intended to reflect transition zones for the purpose of environmental assessment and should not be interpreted as exact planes of geological change.

Topsoil

Approximately 75 to 250 mm of topsoil was found in boreholes BH104, BH105, BH108, BH117, and BH122.

Fill

Fill materials consisting of sand and gravel and/or clayey silt were encountered in boreholes BH102, BH104, BH108, BH109, BH110, and BH112, extending to depths of up to 1.6 m bgs.

Silt/Clayey Silt

Native silt or clayey silt was encountered beneath the topsoil or fill materials in each of the boreholes to depths of up to 6.1 m bgs. The silt/clayey silt became grey and very moist to wet with depth.

Silty Sand Till

Native sandy silt till was encountered in all boreholes to the termination depth of 8.2 m bgs, except BH117. The sandy silt till was grey and wet.

5.2 Groundwater Elevation and Flow Direction

Groundwater levels were measured in the wells on October 13, 2021, and November 3, 2021. The geodetic elevations of the ground surface of the boreholes and monitoring wells were interpolated from a topographic survey completed for the Site, and groundwater level measurements were taken by measuring to the surface of the groundwater from the ground surface and from the top of the well casing with the necessary corrections made to establish depths below grade if required.

The following table summarizes the monitoring well installation details and groundwater observations.

Table 2: Groundwater Monitoring Well Summary

Sample Location	Ground Surface Elevation	Well Depth from Ground Surface (m)	Screened Interval Elevation (m) and Depth (m bgs)	Groundwater Elevation and Depth (m bgs)	
				October 13, 2021	November 3, 2021
BH/MW105	194.63	4.65	189.98 – 192.98 (1.65 – 4.65)	194.69 (-0.06)	194.95 (-0.32)
BH/MW110	195.87	5.32	190.55 – 193.55 (2.32 – 5.32)	193.85 (2.02)	194.93 (0.94)
BH/MW122	195.09	4.83	190.26 – 193.26 (1.83 – 4.83)	194.74 (0.35)	194.99 (0.10)

Bolded value indicates water level is above the ground surface and may be due to an unstable groundwater level and/or upward hydrogeologic gradient.

Based on the measured groundwater elevation data, groundwater flow at the Site appears to be to the northeast, consistent with the expected groundwater flow direction to the north following surface topography towards Nottawasaga Bay. Groundwater contours are shown on Drawing 4 in Appendix A.

It is noted that the groundwater level in MW105 appears to be above the ground surface; it is possible that groundwater in the newly installed monitoring wells had not reached static levels at the time of the groundwater sampling.

5.3 Soil Field Screening

Soil samples recovered during the drilling program were screened for visual and olfactory signs of contamination, as well as for organic vapours using an RKI Eagle 2 gas detector, equipped with a catalytic combustible gas (LEL) sensor, calibrated to hexane, and a Photo Ionization Detector (PID) sensor, calibrated to isobutylene. No vapour readings were detected in the soil samples collected. The soil field screening measurements are presented on the subsurface logs in Appendix B.

5.4 Soil Quality

In accordance with the scope of work, chemical analyses were performed by ALS on selected soil samples recovered from the boreholes. The table below indicates the soil samples selected for laboratory analysis.

Table 3: Summary of Soil Samples Submitted for Laboratory Analysis

Sample I.D	Sample Depth	Date	Chemical Analysis				Rationale
			PHCs	VOCs	PAHs	M/I	
BH102 SS2	0.8 – 1.4	10/21/21	✓		✓	✓	-Investigate APECs to confirm soil quality. -Baseline results in area of future Parkland Fuels location.
BH104 SS1	0 – 0.6	10/22/21	✓			✓	
BH105 SS1	0 – 0.6	10/01/21	✓		✓	✓	
BH108 SS1	0 – 0.6	10/21/21	✓			✓	
BH109 SS3	1.5 – 2.1	10/21/21	✓	✓		✓	
BH110 SS4	2.3 – 2.9	10/01/21	✓	✓		✓	
BH112 SS4	2.3 – 2.9	09/30/21	✓	✓	✓	✓	
BH117 SS2	0.8 – 1.4	10/22/21	✓		✓	✓	
BH122 SS5	3.0 – 3.6	09/30/21	✓	✓		✓	

Notes: PHCs - Petroleum Hydrocarbons Fractions F1-F4
PAHs - Polycyclic Aromatic Hydrocarbons
VOCs – Volatile Organic Compounds
M/I – Metals and Inorganics

Tables summarizing the analytical results for this assignment are included in Appendix C, and the laboratory Certificates of Analysis for the soil samples submitted for testing are included in Appendix D.

5.4.1 Petroleum Hydrocarbons Fractions F1-F4 (PHC F1-F4) including Benzene, Toluene, Ethylbenzene, and Xylenes (BTEX)

The measured concentrations of PHCs and BTEX in the submitted samples were not detected or were below the MECP Table 2 ICC SCS (Table 8 SCS for BH104). The results of the analysis are included in Table 1 of Appendix C.

5.4.2 Volatile Organic Compounds (VOCs)

The measured concentrations of VOCs in the submitted samples were not detected or were below the MECP Table 2 ICC SCS. The results of the analysis are included in Table 2 of Appendix C.

5.4.3 Polycyclic Aromatic Hydrocarbons (PAHs)

The measured concentrations of PAHs in the submitted samples were not detected and were below the MECP Table 2 ICC SCS. The results of the analysis are included in Table 3 of Appendix C.

5.4.4 Metals and Inorganics

The measured concentrations of metals and inorganics in the submitted samples were not detected or were below the MECP Table 2 ICC SCS (Table 8 SCS for BH104). The results of the analysis are included in Table 4 of Appendix C.

5.5 Groundwater Quality

In accordance with the scope of work, chemical analyses were performed on groundwater samples obtained from the monitoring wells. The table below indicates the groundwater samples submitted for laboratory analysis.

Table 4: Groundwater Samples Submitted for Laboratory Analysis

Sample Location/Well I.D.	Date	Analysis
BH/MW105	October 13, 2021	PHCs, VOCs, Metals
BH/MW110		
BH/MW122		

Notes: PHCs - Petroleum Hydrocarbons VOCs - Volatile Organic Compounds
PAHs – Polycyclic Aromatic Hydrocarbons BTEX – Benzene, Toluene, Ethylbenzene, and Xylenes

5.5.1 PHCs and BTEX

The measured concentrations of PHCs and BTEX in the submitted samples were not detected and were below the MECP Table 2 SCS. The results of the analysis are included in Table 5 of Appendix C.

5.5.2 VOCs

The measured concentrations of VOCs in the submitted samples were not detected and were below the MECP Table 2 SCS. The results of the analysis are included in Table 6 of Appendix C.

5.5.3 Metals

The measured concentrations of metals in the submitted samples were not detected or were below the MECP Table 2 SCS. The results of the analysis are included in Table 7 of Appendix C.

5.6 Quality Assurance/Quality Control Results

ALS Environmental (ALS) and Paracel Laboratories Ltd. (Paracel) are accredited by the Standards Council of Canada/Canadian Association of Environmental Analytical Laboratories in accordance with ISO/IEC 17025:1999 – “General Requirements for the Competence of Testing and Calibration Laboratories” for the analysis of all parameters for all samples in the scope of work for which SCS have been established under O.Reg. 153/04.

The “Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act” (“the Analytical Protocol”), MECP, March 2004, establishes the criteria used in assessing the performance of analytical laboratories when the data are used in support of the filing of Records of Site Condition.

Soil and groundwater samples were analysed by using standard reference methods and the testing methods were referenced in the ALS and Paracel Certificates of Analysis, as required by the MECP's protocol. Laboratory quality assurance/quality control (QA/QC) data is included with the Certificates of Analysis, which are appended. Method blank, spiked method blank, laboratory spiked and duplicate soil samples were analysed by the laboratory with each batch of samples.

The results of chemical analysis of method blank sample indicated that the detected levels were within the acceptable range. The chemical test data for spiked method blank and laboratory spike samples indicated that the recovery ranges were within the statistically determined control limits.

6. Conclusions and Recommendations

The purpose of the Phase Two ESA was to investigate the environmental conditions of the soil and groundwater in relation to the Areas of Potential Environmental Concern (APECs) identified during a Phase One ESA Update completed by G2S, to confirm a previous data set, and to satisfy a lease agreement with Parkland Fuels, prior to development.

The investigation was completed concurrently with a Geotechnical Investigation, reported under separate cover. The drilling for the Geotechnical Investigation and Phase Two ESA consisted of the advancement of twenty-three boreholes, three of which were completed as groundwater monitoring wells. Nine of the boreholes (including the three monitoring wells) were used for environmental purposes and are discussed throughout this report; data for the remaining fourteen boreholes are included in the geotechnical report. Refer to Drawing 3 for the Borehole and Monitoring Well Location Plan.

The findings of this assignment are summarized as follows:

1. In general, the subsurface conditions comprised fill materials (to depths of up to 1.6 m bgs) over native silt/clayey silt and silty sand till. Refer to the borehole logs in Appendix B.
2. Groundwater was found in two of the monitoring wells on November 3, 2021, at elevation 194.93 to 194.99 m (geodetic). The third monitoring well had a groundwater elevation of 195.95, which is above the ground surface.
3. The Site is subject to two Ministry of Environment, Conservation, and Parks (MECP) Site Condition Standard (SCS) due to the proximity of the north portion of the Site to a tributary of Pretty River. The north portion of the Site is subject to the Table 8 SCS, and the remainder of the Site is subject to the Table 2 SCS.
4. Soil samples were submitted for chemical testing of petroleum hydrocarbons (PHCs) including benzene, toluene, ethylbenzene, xylenes (BTEX), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and metal and inorganics parameters. The tested soil met the applicable MECP Table 2 and/or Table 8 industrial/commercial/community (ICC) SCS.
5. Groundwater samples from the monitoring wells were submitted for chemical testing of PHCs including BTEX, VOCs, and metal parameters. The tested groundwater met the MECP Table 2 SCS.

Based on the findings of this Phase Two ESA, the soil and groundwater in the areas tested meets the applicable MECP Table 2 ICC and/or Table 8 SCS. In this regard, no further investigation is recommended at this time.

Should a Record of Site Condition (RSC) be required for the Site, further investigation may be required to satisfy the requirements of O.Reg. 153/04. RSCs are generally required with a change in land use to a more sensitive use, and in some instances, with an application for a building permit.

In accordance with O. Reg. 903/90, as amended, the monitoring wells should be decommissioned if the wells are not in use or being maintained for future use. G2S would be pleased to assist in this regard.

7. Qualifications of the Assessors

This Phase Two ESA was prepared by Ms. Dana Haslett, B.A. Ms. Haslett has been trained to conduct Phase One and Two ESAs in accordance with the CSA and O. Reg. 153/04, as amended. She is a Senior Project Manager with over 9 years of professional experience specializing in environmental investigations and project management. Her main areas of expertise include Phase One and Phase Two ESAs, project management, site cleanup/remediation, UST and AST removals, and site remediation. She has completed numerous projects on behalf of private and public-sector clients for industrial, commercial, and residential sites.

This Phase Two ESA was prepared under the supervision of, and the report was reviewed by Melissa King, a Professional Geoscientist registered with the Professional Geoscientists of Ontario. Ms. King is a Senior Geoscientist and Head of Environmental Services and is a Qualified Person (QP). She has over 23 years of interdisciplinary professional experience specializing in environmental and hydrogeologic investigations and project management. Her main areas of expertise include Phase One and Phase Two ESAs, site cleanup / remediation planning and supervision, site remediation, Risk Assessment, Records of Site Condition and hydrogeologic investigations. She has completed hundreds of projects for commercial, industrial, and residential clients for a wide variety of project types (industrial complexes, commercial developments, entertainment and institutional buildings, and residential development).

8. References and Supporting Documentation

- a) *"Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* Ministry of the Environment of Ontario, December 1996.
- b) *"Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act"*, dated July 27, 2009 and updated April 15, 2011.
- c) *"The Ontario Water Resources Act – R.R.O. 1990, Regulation 903 – Amended to O. Reg. 128/03, August 2003.*
- d) *"Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act"*, March 2004.
- e) *"Ontario Regulation 153/04 (made under the Environmental Protection Act),"* May 2004 (MOE).
- f) *"Z769-00, Phase II Environmental Site Assessment,"* Canadian Standard Association, March 2000.
- g) *"Environmental Protection Act, R.S.O. 1990, Chapter E.19,"* as amended, September 2004.
- h) Singer SN, Cheng CK, Scafe MG. (2003). *The Hydrogeology of Southern Ontario, Second Edition*, Report from the Ontario Ministry of the Environment.
- i) *"Phase One Environmental Site Assessment (ESA), 869 Hurontario Street and 7564 Poplar Sideroad, Collingwood, Ontario"* prepared by Terraprobe Inc. for Georgian International Land Corp. Coach dated November 7, 2014.
- j) *"Fill Investigation, 869 Hurontario Street, Collingwood, Ontario"* prepared by Terraprobe Inc. for Georgian International Land Corp. dated October 29, 2014.
- k) *"Geotechnical Investigation Proposed Home Hardware Store, Collingwood, Ontario"* prepared by Shaheen & Peaker Limited for Home Hardware Stores Limited, dated December 15, 2003.
- l) *"Phase One Environmental Site Assessment Update, 839 and 869 Hurontario Street & 7564 Poplar Sideroad, Collingwood, Ontario"* prepared by G2S Consulting Inc. for Charis Developments Ltd., dated November 19, 2021.

9. Limitations

This report has been prepared for the sole benefit of the Charis Developments Ltd. and is intended to provide information on the subsurface environmental conditions at the Site, 839 and 869 Hurontario Street and 7564 Poplar Sideroad in Collingwood, Ontario. The report may not be used by any other person or entity without the expressed written consent of the Charis Developments Ltd. and G2S Consulting Inc. (G2S). Any use which a third party makes of this report, or any reliance on decisions made based on it, is the responsibility of such third parties. G2S accepts no responsibility for damages, if any suffered by any third party as a result of decisions made or actions based on this report.

The findings in this report are limited to the conditions at the Site at the time of this investigation as described herein. Conclusions presented in this report should not be construed as legal advice.

If Site conditions or applicable standards change or if any additional information becomes available at a future date, changes to the findings, conclusions and recommendations in this report may be necessary.

10. Closing Remarks

We trust this report is satisfactory for your purposes. Should you have any questions, please do not hesitate to contact this office.

Yours truly,

G2S Consulting Inc.

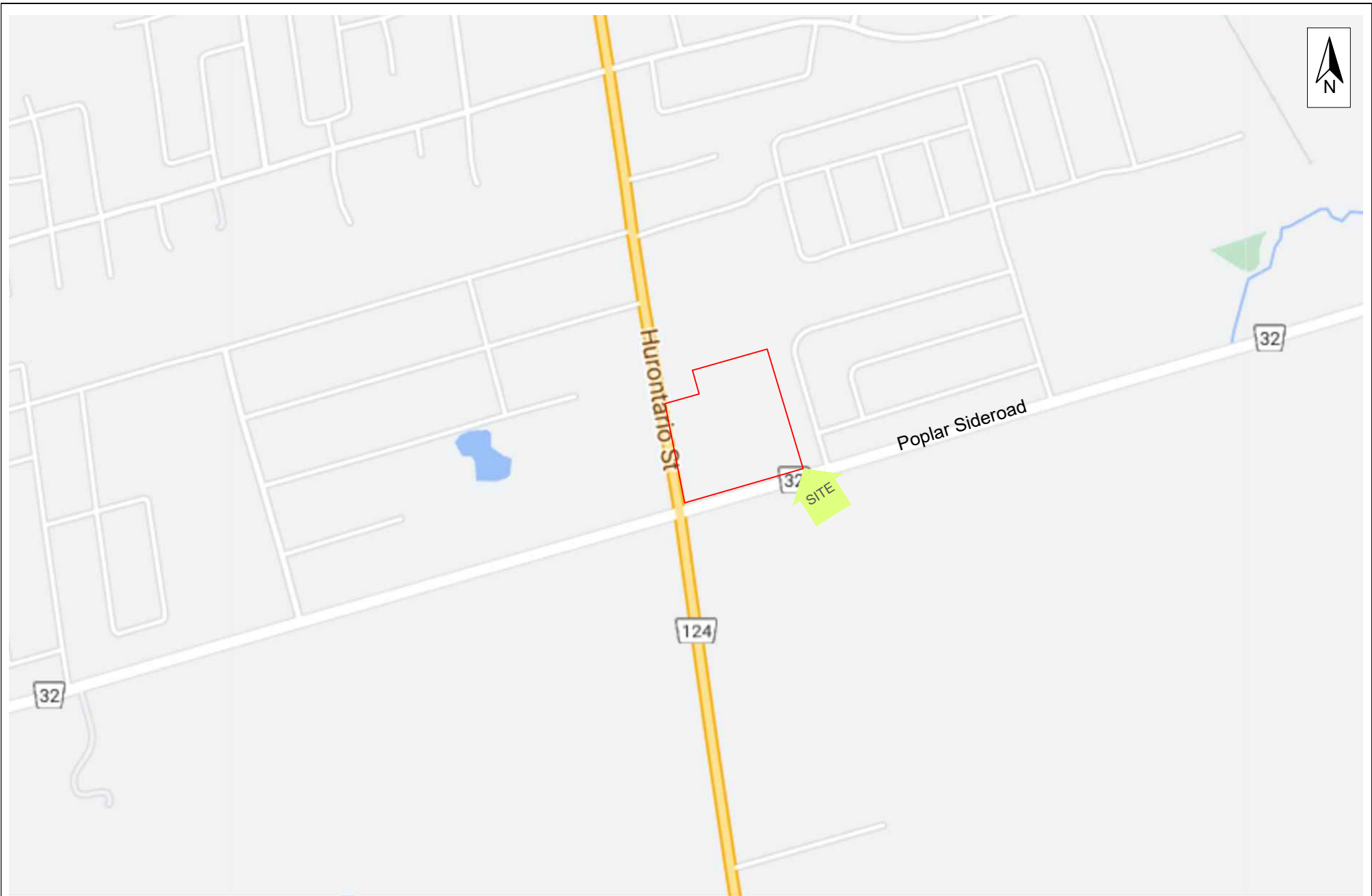


Dana Haslett, B.A.
Senior Project Manager



Melissa King, P.Geo., QP_{ESA}
Head of Environmental Services

Appendix A: Drawings



Scale: N.T.S.
Project No.: G2S21366B
Date: NOVEMBER 2021
Drawn by: ZB/DH
File name: HURONTARIO&POPLAR.dwg

SITE LOCATION PLAN
839 AND 869 HURONTARIO STREET & 7564
POPLAR SIDEROAD

COLLINGWOOD ONTARIO



Drawing No.

1



Scale: AS SHOWN

Project No.: G2S21366B

Date: NOVEMBER 2021

Drawn by: ZB/DH

File name: HURONTARIO&POPLAR.dwg

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN 839 AND 869 HURONTARIO STREET & 7564 POPLAR SIDEROAD

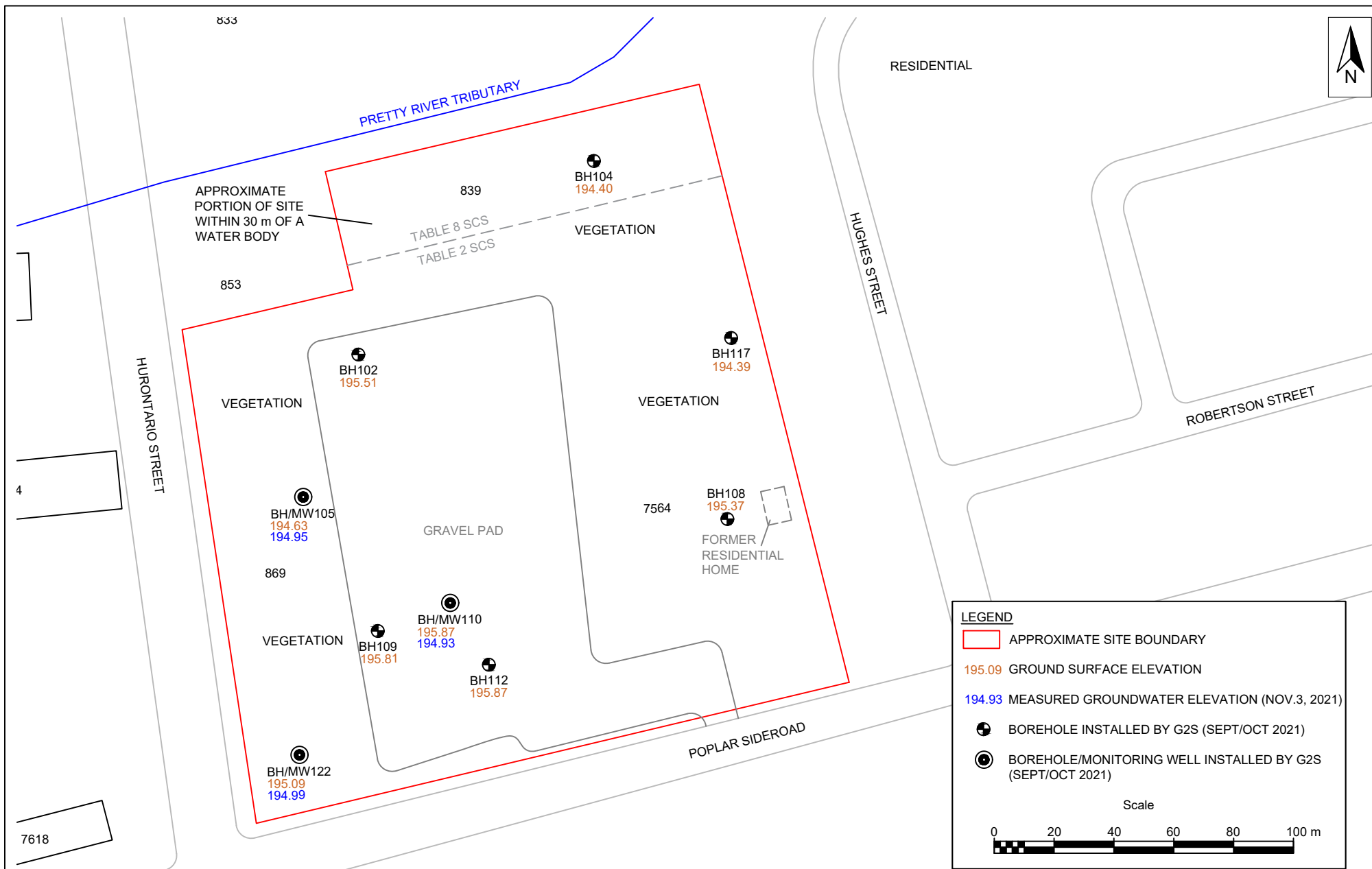
COLLINGWOOD

ONTARIO



Drawing No.

2



Note: The geodetic elevations of the boreholes and monitoring wells were interpolated from a topographic survey (J.D. Barnes Limited, September 2021) completed for the Site.

Scale: AS SHOWN
Project No.: G2S21366B
Date: NOVEMBER 2021
Drawn by: ZB/DH
File name: HURONTARIO&POPLAR.dwg

BOREHOLE AND MONITORING WELL LOCATION PLAN 839 AND 869 HURONTARIO STREET & 7564 POPLAR SIDEROAD

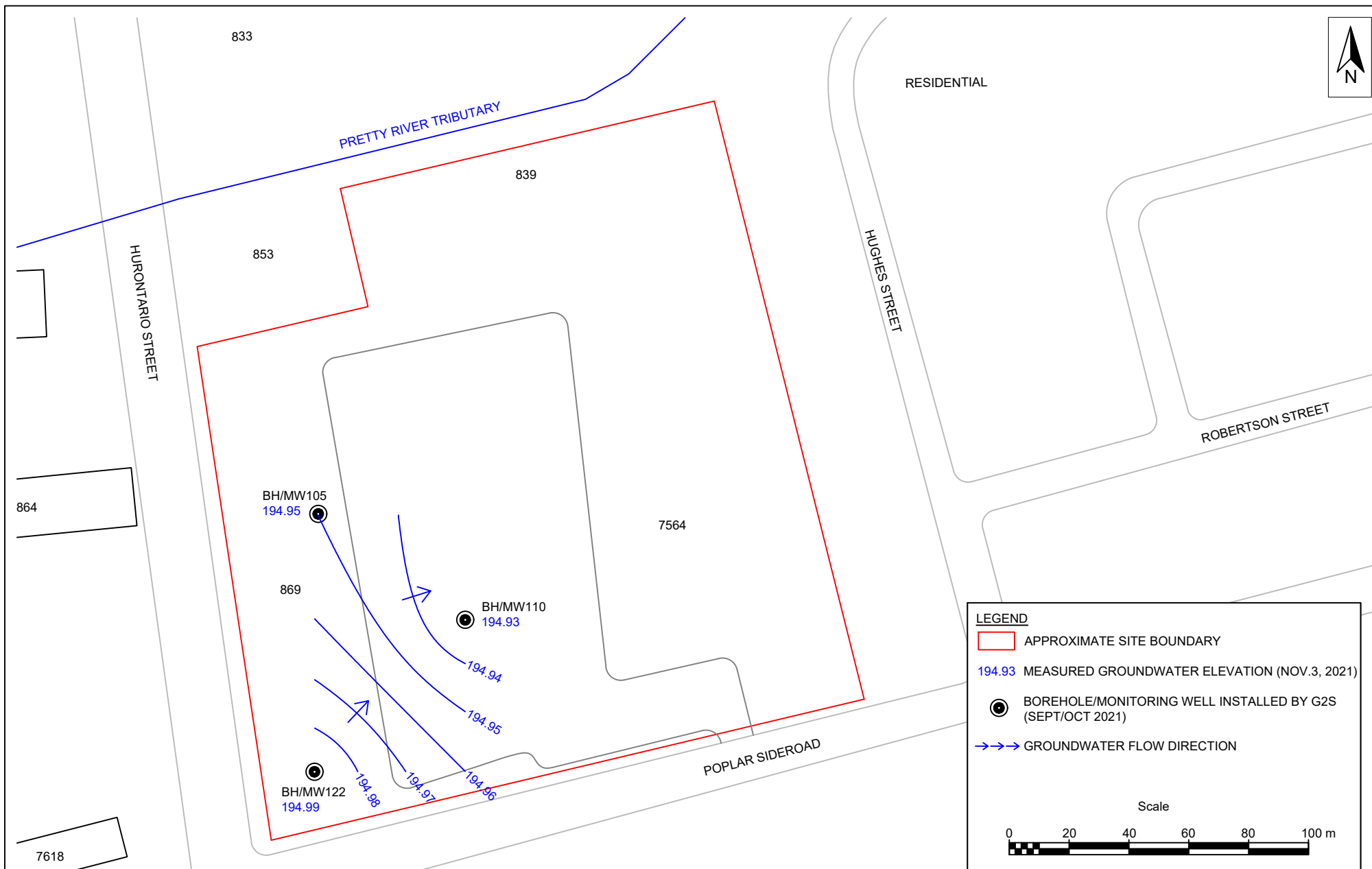
COLLINGWOOD

ONTARIO



Drawing No.

3



Note: The geodetic elevations of the boreholes and monitoring wells were interpolated from a topographic survey (J.D. Barnes Limited, September 2021) completed for the Site.

Scale: AS SHOWN
 Project No.: G2S21366B
 Date: NOVEMBER 2021
 Drawn by: ZB/DH
 File name: HURONTARIO&POPLAR.dwg

GROUNDWATER CONTOURS

839 AND 869 HURONTARIO STREET & 7564 POPLAR SIDEROAD

COLLINGWOOD

ONTARIO



Drawing No.

4

Appendix B: Borehole Logs

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-21 **COMPLETED** 21-10-21 **GROUND ELEVATION** 195.51 m
DRILLING CONTRACTOR LST **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD Diedrich D50 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
0.65	FILL: Sand and gravel, brown, some silt, numerous cobbles, occasional boulder, moist	194.86		SS1	SPT	3	▲		●	20/0		
1	becoming clayey sand, brown, some gravel, some silt, moist	193.99		SS2	SPT	22		▲	●	30/0		
1.5												
2	SILT: Brown to grey, some sand, trace clay, moist, compact, occasional clay seams, occasional sand seams			SS3	SPT	10	▲		●	25/0		
3				SS4	SPT	2	▲		●	10/0		
3.1		192.46										
4	becoming grey, layered, very moist to wet			SS5	SPT	12	▲		●	15/0		
5				SS6	SPT	4	▲		●	0/0		
5.2		190.33										
5.8	SILTY SAND TILL: Grey, some gravel, trace clay, wet	189.72		SS7	SPT	19	▲		●	5/0		

Borehole terminated at 5.8 m.

Upon completion
 of augering
 Wet cave at 4.6 m
 Free water at 0.65
 m after 24 hours

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-22 **COMPLETED** 21-10-22 **GROUND ELEVATION** 194.40 m
DRILLING CONTRACTOR LST **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD Diedrich D50 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
							10 20 30 40	10 20 30 40				
							Undrained Shear Strength (kPa)					
							Pocket Penetrometer X Vane +					
							40 80 120 160	10 20 30				
0.10	TOPSOIL: ~100 mm	194.30		SS1	SPT	11	▲		●	0/0		
1	FILL: Clayey silt, brown and grey mottled, some sand, moist			SS2	SPT	8	▲		●	0/0		
1.5		192.88										
2	SILT: Brown and grey mottled, some sand, trace clay, moist, compact, occasional sand seams, occasional clay seams			SS3	SPT	10	▲		●	0/0		
2.3	becoming grey, very moist to wet, layered	192.11		SS4	SPT	13	▲		●	0/0		
3				SS5	SPT	10	▲		●	0/0		
3.8		190.59		SS6	SPT	33	▲		●	0/0		
4	SILTY SAND TILL: Grey, some gravel, moist, compact to dense			SS7	SPT	43	▲		●	0/0		
5		189.22										
5.2												

Borehole terminated at 5.2 m.

Upon completion
 of augering
 No cave
 Free water at 4.4
 m

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-21 **COMPLETED** 21-10-21 **GROUND ELEVATION** 195.37 m
DRILLING CONTRACTOR LST **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD Diedrich D50 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
							Undrained Shear Strength (kPa)					
							Pocket Penetrometer X					
							Vane +					
							40	80	120	160		
									PL	MC	LL	
									10	20	30	
0.10	TOPSOIL: ~100 mm	195.27		SS1	SPT	4	▲					
	FILL: Clayey silt, brown to dark brown, some sand, very moist											
0.76		194.61										
1	SILT: Brown and grey mottled, some sand, trace clay, compact, moist, occasional sand seams, occasional clay seams			SS2	SPT	16	▲					
2				SS3	SPT	17	▲					
2.3		193.08										
	becoming grey, very moist, numerous sand layers			SS4	SPT	11	▲					
3												
3.1		192.32										
	becoming layered with sand, clayey silt			SS5	SPT	11	▲					
4												
3.8		191.56										
	SILTY SAND TILL: Grey, some gravel, compact, wet			SS6	SPT	11	▲					
5				SS7	SPT	21	▲					
5.2		190.19										

Borehole terminated at 5.2 m.

Upon completion
 of augering
 Cave at 4.4 m
 Free water at 3.4 m

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-21 **COMPLETED** 21-10-21 **GROUND ELEVATION** 195.81 m
DRILLING CONTRACTOR LST **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD Diedrich D50 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
							Undrained Shear Strength (kPa) Pocket Penetrometer X Vane + 40 80 120 160		PL MC LL 10 20 30			
1	FILL: Sand and gravel, brown, some silt to silty, numerous cobbles, occasional boulders, moist	194.86		SS1	SPT	8	▲		●	25/0		
1.5	becoming clayey silt, brown and grey, some sand, some gravel, moist	194.29		SS2	SPT	11	▲		●	25/0		
2	SILT: Brown and grey mottled, some sand, trace clay, compact, moist, occasional sand seams, occasional clay seams			SS3	SPT	14	▲		●	30/0		
3				SS4	SPT	16	▲		●	35/0		
4				SS5	SPT	15	▲		●	20/0		
4.6	becoming grey, wet, more plastic, occasional silty sand pockets	191.24		SS6	SPT	15	▲		●	15/0		
5	SILTY SAND TILL: Grey, some gravel, loose, wet, occasional silt inclusions	190.63		SS7	SPT	9	▲		●	15/0		

Borehole terminated at 5.2 m.

Upon completion
 of augering
 No cave
 No free water

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-1 **COMPLETED** 21-10-1 **GROUND ELEVATION** 195.87 m
DRILLING CONTRACTOR Davis **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD CME 45 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
							10 20 30 40	10 20 30 40				
							Undrained Shear Strength (kPa)					
							Pocket Penetrometer X					
							Vane +					
							40 80 120 160	40 80 120 160	PL MC LL			
									10 20 30			
1	FILL: Sand and gravel, brown, trace to some silt, numerous cobbles, occasional boulders, moist			SS1	AU					25/0		
1.6		194.24		SS2	SPT	52		>>▲		25/0		
2	CLAYEY SILT: Brown and grey, some sand, some gravel, stiff, very moist, reworked appearance at top portion			SS3	SPT	11	▲		●	25/0		
3		192.82		SS4	SPT	14	▲	225X	●	45/0		
3.1	numerous sand seams			SS5	SPT	11	▲	X	●	25/0		
4		191.30										
4.6		191.30										
5	becoming grey, firm, wet, occasional sandy silt pockets			SS6	SPT	6	▲		●	30/0		
5.3		190.54										
5.9	SILTY SAND TILL: Grey, some gravel, trace clay, compact, wet	189.93		SS7	SPT	19	▲	225X	●	30/0		

Borehole terminated at 5.9 m.

Water Level Readings:		
Date	Depth (m)	Elev. (m)
2021-10-13	2.02	193.85
2021-11-01	0.94	194.93

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-9-30 **COMPLETED** 21-10-1 **GROUND ELEVATION** 195.87 m
DRILLING CONTRACTOR Davis **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD CME 45 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
							10 20 30 40					
							Undrained Shear Strength (kPa)					
							Pocket Penetrometer X					
							Vane +					
							40 80 120 160		PL MC LL			
									10 20 30			
1	FILL: Sand and gravel, brown, some silt, numerous cobbles, occasional boulders, moist			SS1	AU					15/0		
1.5		194.37		SS2	SPT	23		▲	●	20/0		
2	CLAYEY SILT: Brown, some sand, trace gravel, firm to stiff, very moist, reworked appearance at top portion			SS3	SPT	7	▲		●	10/0		
3		192.82		SS4	SPT	10	▲		●	20/0		
3.1	becoming grey, soft to very soft, wet, numerous sand layers			SS5	SPT	4	▲	X	●	15/0		
4		191.30		SS6	SPT	2	X		●	20/0		
4.6				SS7	SPT	6	▲		●	20/0		
5	SILTY SAND TILL: Grey, some gravel, trace clay, loose to compact, wet			SS8	SPT	12	▲		●	15/0		
5.9		189.93										

Borehole terminated at 5.9 m.

Upon completion of augering
Wet cave at 3.0 m

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-10-22 **COMPLETED** 21-10-22 **GROUND ELEVATION** 194.39 m
DRILLING CONTRACTOR LST **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD Diedrich D50 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES	MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL			
							N values					CPT values		
							10					20	30	40
							Undrained Shear Strength (kPa)							
							Pocket Penetrometer	Vane						
							40	80	120	160	10	20	30	
0.08	TOPSOIL: ~75 mm	194.32		SS1	SPT	5	▲		×		●	0/0		
1	CLAYEY SILT: Brown, trace sand, firm, very moist, occasional sand seams, occasional silt seams, reworked appearance at top portion			SS2	SPT	9	▲			×	225	●	0/0	
1.5	becoming brown and grey mottled	192.87		SS3	SPT	9	▲			×	225	●	0/0	
2.1		192.26												

Borehole terminated at 2.1 m.

Upon completion of augering
No cave
No free water

CLIENT Charis Developments Ltd. **PROJECT NAME** 839 & 869 Hurontario St & 7564 Poplar Side Rd
PROJECT NUMBER G2S21366B **PROJECT LOCATION** Collingwood, Ontario
DATE STARTED 21-9-30 **COMPLETED** 21-9-30 **GROUND ELEVATION** 195.09 m
DRILLING CONTRACTOR Davis **LOGGED BY** DB **CHECKED BY** AA
DRILLING METHOD CME 45 Track **NOTES** _____

DEPTH (m)	MATERIAL DESCRIPTION	ELEVATION (m)	GRAPHIC LOG	NUMBER	TYPE	N VALUE	SPT N VALUES		MOISTURE / PLASTICITY	SOIL GAS READINGS HEX/IBL (ppm)	WELL CONSTRUCTION	GRAIN SIZE DISTRIBUTION % GR SA SI & CL
							N values ▲	CPT values △				
0.25	TOPSOIL: ~250 mm	194.84		SS1	SPT	3	▲					
1	CLAYEY SILT: Brown, trace sand, stiff to very stiff, moist, occasional sand layers			SS2	SPT	16	▲		●			
2				SS3	SPT	11	▲		●			
2.3	becoming grey, firm, wet, numerous sand layers	192.80		SS4	SPT	7	▲		●			
3	becoming very soft	192.04		SS5	SPT	0 WH	▲		●			
4												
5				SS6	SPT	0 WH	▲		●			
6												
6.1	SILTY SAND TILL: Grey, some gravel, trace clay, compact to very dense, wet	188.99		SS7	SPT	17	▲		●			
7												
8				SS8	SPT	64	>>▲		●			
8.2	Borehole terminated at 8.2 m.	186.86										

Water Level Readings:		
Date	Depth (m)	Elev. (m)
2021-10-13	0.35	194.74
2021-11-01	0.10	194.99

Appendix C:
Analytical Results Tables

**Table 1: Soil Quality Results
Petroleum Hydrocarbons (PHCs) (F1-F4) and BTEX**

Parameter	Unit	*Table 2 SCS I/C/C Property Use	*Table 8 SCS R/P/I/I/C/C Property Use	Sample Identification								
				BH102 SS2	BH104 SS1	BH105 SS1	BH108 SS1	BH109 SS3	BH110 SS4	BH112 SS4	BH117 SS2	BH122 SS5
Date Sampled				21-Oct-21	22-Oct-21	01-Oct-21	21-Oct-21	21-Oct-21	01-Oct-21	30-Sep-21	22-Oct-21	30-Sep-21
Depth	mbgs			0.8 - 1.4	0 - 0.6	0 - 0.6	0 - 0.6	1.5 - 2.1	2.3 - 2.9	2.3 - 2.9	0.8 - 1.4	3.0 - 3.6
Benzene	ug/g	0.4	0.02	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Ethylbenzene	ug/g	1.6	0.05	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
Toluene	ug/g	9	0.2	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Xylenes	ug/g	30	0.05	<0.050	<0.050	0.072	<0.050	<0.020	<0.050	<0.050	<0.050	<0.050
Petroleum Hydrocarbons F1	ug/g	65	25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Petroleum Hydrocarbons F2	ug/g	250	10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Petroleum Hydrocarbons F3	ug/g	2500	240	<50	<50	<50	<50	<50	<50	<50	<50	<50
Petroleum Hydrocarbons F4	ug/g	6600	120	<50	<50	<50	<50	<50	<50	<50	<50	<50

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

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Xylenes exceeds the Table 8 SCS in BH105 SS1; BH105 SS1 is located at a distance greater than 30 m from a water body and therefore meets the applicable MECP Table 2 SCS

**Table 2: Soil Quality Results
Volatile Organic Compounds (VOCs)**

Parameter	Unit	*Table 2 SCS I/C/C Property Use	*Table 8 SCS R/P/I/I/C/C Property Use	Sample Identification			
				BH109 SS3	BH110 SS4	BH112 SS4	BH122 SS5
Date Sampled				21-Oct-21	01-Oct-21	30-Sep-21	30-Sep-21
Depth	mbgs			1.5 - 2.1	2.3 - 2.9	2.3 - 2.9	3.0 - 3.6
Acetone	ug/g	28	0.5	<0.50	<0.50	<0.50	<0.50
Benzene	ug/g	0.4	0.02	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	1.9	0.05	<0.050	<0.050	<0.050	<0.050
Bromoform	ug/g	1.7	0.05	<0.050	<0.050	<0.050	<0.050
Bromomethane	ug/g	0.05	0.05	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	ug/g	0.71	0.05	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	ug/g	2.7	0.05	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	ug/g	2.9	0.05	<0.050	<0.050	<0.050	<0.050
Chloroform	ug/g	0.18	0.05	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	ug/g	0.05	0.05	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	ug/g	1.7	0.05	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	ug/g	12	0.05	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	ug/g	0.57	0.05	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	ug/g	25	0.05	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	ug/g	0.6	0.05	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	ug/g	0.05	0.05	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	ug/g	0.48	0.05	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	ug/g	2.5	0.05	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	ug/g	2.5	0.05	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	ug/g	2	0.05	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	ug/g	0.68	0.05	<0.050	<0.050	<0.050	<0.050
1,3-Dichloropropene (cis & trans)	ug/g	0.081	0.05	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	ug/g	1.6	0.05	<0.018	<0.018	<0.018	<0.018
n-Hexane	ug/g	88	0.05	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	ug/g	88	0.5	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g	210	0.5	<0.50	<0.50	<0.50	<0.50
MTBE	ug/g	2.3	0.05	<0.050	<0.050	<0.050	<0.050
Styrene	ug/g	43	0.05	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	ug/g	0.11	0.05	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	ug/g	0.094	0.05	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene	ug/g	2.5	0.05	<0.050	<0.050	<0.050	<0.050
Toluene	ug/g	9	0.2	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	12	0.05	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	ug/g	0.11	0.05	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	ug/g	0.61	0.05	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	ug/g	5.8	0.25	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	ug/g	0.25	0.02	<0.020	<0.020	<0.020	<0.020
Xylenes (Total)	ug/g	30	0.05	<0.050	<0.050	<0.050	<0.050

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

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Table 3: Soil Quality Results
Polycyclic Aromatic Hydrocarbons (PAHs)

Parameter	Unit	*Table 2 SCS I/C/C Property Use	*Table 8 SCS R/P/I/I/C/C Property Use	Sample Identification			
				BH102 SS2	BH105 SS1	BH112 SS4	BH117 SS2
Date Sampled				21-Oct-21	01-Oct-21	30-Sep-21	22-Oct-21
Depth	mbgs			0.8 - 1.4	0 - 0.6	2.3 - 2.9	0.8 - 1.4
Acenaphthene	ug/g	29	0.072	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.17	0.093	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.74	0.22	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	0.36	<0.050	<0.050	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	0.3	<0.050	<0.050	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.96	0.47	<0.050	<0.050	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	9.6	0.68	<0.050	<0.050	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.96	0.48	<0.050	<0.050	<0.050	<0.050
Chrysene	ug/g	9.6	2.8	<0.050	<0.050	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	0.1	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ug/g	9.6	0.69	<0.050	<0.050	<0.050	<0.050
Fluorene	ug/g	69	0.19	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.95	0.23	<0.050	<0.050	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	42	0.59	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030	<0.030	<0.030
Naphthalene	ug/g	28	0.09	<0.013	<0.013	<0.013	<0.013
Phenanthrene	ug/g	16	0.69	<0.046	<0.046	<0.046	<0.046
Pyrene	ug/g	96	1	<0.050	<0.050	<0.050	<0.050

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

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**Table 4: Soil Quality Results
Metals and Inorganics**

Parameter	Unit	*Table 2 SCS I/C/C Property Use	*Table 8 SCS R/P/I/I/C/C Property Use	Sample Identification								
				BH102 SS2	BH104 SS1	BH105 SS1	BH108 SS1	BH109 SS3	BH110 SS4	BH112 SS4	BH117 SS2	BH122 SS5
Date Sampled				21-Oct-21	22-Oct-21	01-Oct-21	21-Oct-21	21-Oct-21	01-Oct-21	30-Sep-21	22-Oct-21	30-Sep-21
Depth	mbgs			0.8 - 1.4	0 - 0.6	0 - 0.6	0 - 0.6	1.5 - 2.1	2.3 - 2.9	2.3 - 2.9	0.8 - 1.4	3.0 - 3.6
Antimony	ug/g	50	1.3	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic	ug/g	18	18	7.7	4.2	6	2.7	4.5	4.6	3.9	5.3	3.2
Barium	ug/g	670	220	33	56.3	81.6	38.9	54.1	60.9	54.3	58.7	45.4
Beryllium	ug/g	10	2.5	<0.50	0.57	0.81	<0.50	0.57	0.52	0.54	0.63	<0.50
Boron, Hot Water Ext.	ug/g	2	1.5	<0.10	0.22	0.33	0.36	0.35	0.23	0.22	0.25	0.47
Boron	ug/g	120	36	14.4	12.5	16.5	7.2	14.9	13.9	16.5	16.6	14.1
Cadmium	ug/g	1.9	1.2	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium	ug/g	160	70	13.7	21	29.4	15.5	19.9	20.4	20.5	23	18.3
Cobalt	ug/g	100	22	7.1	8.9	12.4	5.1	9.5	9.8	9.2	10.9	8.5
Copper	ug/g	300	92	38.2	15.5	22.3	8.2	18	17.6	17.5	21	18.7
Lead	ug/g	120	120	8.6	8.8	8.1	8.4	6	6.1	5.8	6.6	5.8
Mercury	ug/g	20	0.27	0.0199	0.0327	0.0191	0.0301	0.0094	0.0104	0.007	0.0113	0.0075
Molybdenum	ug/g	40	2	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Nickel	ug/g	340	82	15	19	28.2	10.6	21.8	20.9	20	23.6	18.7
Selenium	ug/g	5.5	1.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver	ug/g	50	0.5	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium	ug/g	3.3	1	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	ug/g	33	2.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium	ug/g	86	86	20.8	29.2	42.5	25.5	29	28.8	29.7	33.1	25.8
Zinc	ug/g	340	290	27.9	47.7	52	29.1	37.5	39.6	39.1	42.4	35.9
Chromium, Hexavalent	ug/g	10	0.66	<0.20	0.59	0.36	0.23	<0.20	<0.20	<0.20	0.26	<0.20
Conductivity	mS/cm	1.4	0.7	0.152	0.247	0.233	0.298	0.178	0.221	0.154	0.131	0.395
Cyanide	ug/g	0.051	0.051	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
SAR	SAR	12	5	0.28	0.18	1.25	0.2	0.76	0.39	0.62	0.29	0.8

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

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**Table 5: Groundwater Quality Results
PHCs and BTEX**

Parameter	Unit	*Table 2 SCS	Sample Identification		
			MW105	MW110	MW122
Date Sampled			13-Oct-21	13-Oct-21	13-Oct-21
Benzene	ug/g	5	<0.5	<0.5	<0.5
Ethylbenzene	ug/g	2.4	<0.5	<0.5	<0.5
Toluene	ug/g	24	<0.5	<0.5	<0.5
Xylenes	ug/g	300	<0.5	<0.5	<0.5
Petroleum Hydrocarbons F1	ug/g	750	<25	<25	<25
Petroleum Hydrocarbons F2	ug/g	150	<100	<100	<100
Petroleum Hydrocarbons F3	ug/g	500	<100	<100	<100
Petroleum Hydrocarbons F4	ug/g	500	<100	<100	<100

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

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Table 6: Groundwater Quality Results
VOCs

Parameter	Unit	*Table 2 SCS	Sample Identification		
			MW105	MW110	MW122
Date Sampled			13-Oct-21	13-Oct-21	13-Oct-21
Acetone	ug/g	2700	<5.0	<5.0	<5.0
Benzene	ug/g	5	<0.5	<0.5	<0.5
Bromodichloromethane	ug/g	16	<0.5	<0.5	<0.5
Bromoform	ug/g	25	<0.5	<0.5	<0.5
Bromomethane	ug/g	0.89	<0.5	<0.5	<0.5
Carbon Tetrachloride	ug/g	0.79	<0.2	<0.2	<0.2
Chlorobenzene	ug/g	30	<0.5	<0.5	<0.5
Chloroform	ug/g	2.4	<0.5	<0.5	<0.5
Dibromochloromethane	ug/g	25	<0.5	<0.5	<0.5
Dichlorodifluoromethane	ug/g	590	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	ug/g	3	<0.5	<0.5	<0.5
1,3-Dichlorobenzene	ug/g	59	<0.5	<0.5	<0.5
1,4-Dichlorobenzene	ug/g	1	<0.5	<0.5	<0.5
1,1-Dichloroethane	ug/g	5	<0.5	<0.5	<0.5
1,2-Dichloroethane	ug/g	1.6	<0.5	<0.5	<0.5
1,1-Dichloroethylene	ug/g	1.6	<0.5	<0.5	<0.5
cis-1,2-Dichloroethylene	ug/g	1.6	<0.5	<0.5	<0.5
trans-1,2-Dichloroethylene	ug/g	1.6	<0.5	<0.5	<0.5
1,2-Dichloropropane	ug/g	5	<0.5	<0.5	<0.5
1,3-Dichloropropene, total	ug/g	0.5	<0.5	<0.5	<0.5
Ethylbenzene	ug/g	2.4	<0.5	<0.5	<0.5
Ethylene dibromide (dibromoethane, 1,2-)	ug/g	0.2	<0.2	<0.2	<0.2
Hexane	ug/g	51	<1.0	<1.0	<1.0
Methyl Ethyl Ketone (2-Butanone)	ug/g	1800	<5.0	<5.0	<5.0
Methyl Isobutyl Ketone	ug/g	640	<5.0	<5.0	<5.0
Methyl tert-butyl ether	ug/g	15	<2.0	<2.0	<2.0
Methylene Chloride	ug/g	50	<5.0	<5.0	<5.0
Styrene	ug/g	5.4	<0.5	<0.5	<0.5
1,1,1,2-Tetrachloroethane	ug/g	1.1	<0.5	<0.5	<0.5
1,1,2,2-Tetrachloroethane	ug/g	1	<0.5	<0.5	<0.5
Tetrachloroethylene	ug/g	1.6	<0.5	<0.5	<0.5
Toluene	ug/g	24	<0.5	<0.5	<0.5
1,1,1-Trichloroethane	ug/g	200	<0.5	<0.5	<0.5
1,1,2-Trichloroethane	ug/g	4.7	<0.5	<0.5	<0.5
Trichloroethylene	ug/g	1.6	<0.5	<0.5	<0.5
Trichlorofluoromethane	ug/g	150	<1.0	<1.0	<1.0
Vinyl Chloride	ug/g	0.5	<0.5	<0.5	<0.5
Xylenes, total	ug/g	300	<0.5	<0.5	<0.5

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

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Table 7: Groundwater Quality Results
Metals

Parameter	Unit	*Table 2 SCS	Sample Identification		
			MW105	MW110	MW122
Date Sampled			13-Oct-21	13-Oct-21	13-Oct-21
Antimony	ug/g	6	<0.5	<0.5	<0.5
Arsenic	ug/g	25	1.2	<1.0	3.5
Barium	ug/g	1000	118	95.8	219
Beryllium	ug/g	4	<0.5	<0.5	<0.5
Boron	ug/g	5000	350	187	332
Cadmium	ug/g	2.7	<0.2	<0.2	<0.2
Chromium	ug/g	50	<1.0	<1.0	<1.0
Cobalt	ug/g	3.8	<0.5	1.4	<0.5
Copper	ug/g	87	<0.5	5.3	0.7
Lead	ug/g	10	<0.2	0.2	<0.2
Molybdenum	ug/g	70	<0.5	1.2	2.4
Nickel	ug/g	100	<1.0	1.9	<1.0
Selenium	ug/g	10	<1.0	<1.0	<1.0
Silver	ug/g	1.5	<0.2	<0.2	<0.2
Sodium	ug/g	490000	46000	32000	81400
Thallium	ug/g	2	<0.5	<0.5	<0.5
Uranium	ug/g	20	0.2	4.2	1.2
Vanadium	ug/g	6.2	<0.5	0.6	<0.5
Zinc	ug/g	1100	<5.0	<5.0	5.4

*Ministry of the Environment, Conservation, and Parks Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

SCS - Site Condition Standards

Appendix D:
Certificates of Analysis



G2S ENVIRONMENTAL CONSULTING, INC.
ATTN: DANA HASLETT
4361 Harvester Road
Unit 12
BURLINGTON ON L7L 5M4

Date Received: 25-OCT-21
Report Date: 12-NOV-21 08:49 (MT)
Version: FINAL REV. 2

Client Phone: 905-331-3735

Certificate of Analysis

Lab Work Order #: L2655585
Project P.O. #: HURONTARIO/POPLAR
Job Reference: G2S21366
C of C Numbers:
Legal Site Desc:

Mathy Mahadera
Account Manager

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

ADDRESS: 95 West Beaver Creek Road, Unit 1, Richmond Hill, ON L4B 1H2 Canada | Phone: +1 905 881 9887 | Fax: +1 905 881 8062
ALS CANADA LTD Part of the ALS Group An ALS Limited Company



L2655585 CONT'D...

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12-NOV-21 08:49 (MT)

Summary of Guideline Exceedances

Guideline						
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Regulation 153/04 - April 15, 2011 Standards - T2-Soil-Ind/Com/Commu Property Use (Fine)						
(No parameter exceedances)						
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use						
(No parameter exceedances)						



ANALYTICAL REPORT

Physical Tests - SOIL

				Lab ID	L2655585-1	L2655585-2	L2655585-3	L2655585-4	L2655585-5
				Sample Date	21-OCT-21	22-OCT-21	21-OCT-21	21-OCT-21	22-OCT-21
				Sample ID	BH102 SS2	BH104 SS1	BH108 SS1	BH109 SS3	BH117 SS2
Analyte	Unit	Guide Limits							
		#1	#2						
Conductivity	mS/cm	1.4	0.7	0.152	0.247	0.298	0.178	0.131	
% Moisture	%	-	-	11.0	19.0	18.4	15.5	19.3	
pH	pH units	-	-	7.63	7.43	7.46	7.66	7.66	

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

- Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.
- Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



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Cyanides - SOIL

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Saturated Paste Extractables - SOIL

Analyte	Unit	Guide Limits		Lab ID				
		#1	#2	Sample Date				
				Sample ID				
SAR	SAR	12	5	0.28	0.18	0.20	0.76	0.29
Calcium (Ca)	mg/L	-	-	14.2	29.4	30.8	16.6	19.0
Magnesium (Mg)	mg/L	-	-	2.07	2.31	2.64	4.48	2.34
Sodium (Na)	mg/L	-	-	4.20	3.70	4.21	13.6	5.03

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



Environmental

ANALYTICAL REPORT

Metals - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2655585-1	L2655585-2	L2655585-3	L2655585-4	L2655585-5
		#1	#2	Sample Date	21-OCT-21	22-OCT-21	21-OCT-21	21-OCT-21	22-OCT-21
				Sample ID	BH102 SS2	BH104 SS1	BH108 SS1	BH109 SS3	BH117 SS2
Antimony (Sb)	ug/g	50	1.3		<1.0	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/g	18	18		7.7	4.2	2.7	4.5	5.3
Barium (Ba)	ug/g	670	220		33.0	56.3	38.9	54.1	58.7
Beryllium (Be)	ug/g	10	2.5		<0.50	0.57	<0.50	0.57	0.63
Boron (B)	ug/g	120	36		14.4	12.5	7.2	14.9	16.6
Boron (B), Hot Water Ext.	ug/g	2	1.5		<0.10	0.22	0.36	0.35	0.25
Cadmium (Cd)	ug/g	1.9	1.2		<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	160	70		13.7	21.0	15.5	19.9	23.0
Cobalt (Co)	ug/g	100	22		7.1	8.9	5.1	9.5	10.9
Copper (Cu)	ug/g	300	92		38.2	15.5	8.2	18.0	21.0
Lead (Pb)	ug/g	120	120		8.6	8.8	8.4	6.0	6.6
Mercury (Hg)	ug/g	20	0.27		0.0199	0.0327	0.0301	0.0094	0.0113
Molybdenum (Mo)	ug/g	40	2		<1.0	<1.0	<1.0	<1.0	<1.0
Nickel (Ni)	ug/g	340	82		15.0	19.0	10.6	21.8	23.6
Selenium (Se)	ug/g	5.5	1.5		<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	50	0.5		<0.20	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	3.3	1		<0.50	<0.50	<0.50	<0.50	<0.50
Uranium (U)	ug/g	33	2.5		<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	86		20.8	29.2	25.5	29.0	33.1
Zinc (Zn)	ug/g	340	290		27.9	47.7	29.1	37.5	42.4

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Speciated Metals - SOIL

Analyte	Unit	Guide Limits		Lab ID				
		#1	#2	Sample Date				
				Sample ID				
Chromium, Hexavalent	ug/g	10	0.66	<0.20	0.59	0.23	<0.20	0.26

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2655585-1	L2655585-2	L2655585-3	L2655585-4	L2655585-5
		#1	#2	Sample Date	21-OCT-21	22-OCT-21	21-OCT-21	21-OCT-21	22-OCT-21
				Sample ID	BH102 SS2	BH104 SS1	BH108 SS1	BH109 SS3	BH117 SS2
Acetone	ug/g	28	0.5					<0.50	
Benzene	ug/g	0.4	0.02	<0.0068		<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	1.9	0.05					<0.050	
Bromoform	ug/g	1.7	0.05					<0.050	
Bromomethane	ug/g	0.05	0.05					<0.050	
Carbon tetrachloride	ug/g	0.71	0.05					<0.050	
Chlorobenzene	ug/g	2.7	0.05					<0.050	
Dibromochloromethane	ug/g	2.9	0.05					<0.050	
Chloroform	ug/g	0.18	0.05					<0.050	
1,2-Dibromoethane	ug/g	0.05	0.05					<0.050	
1,2-Dichlorobenzene	ug/g	1.7	0.05					<0.050	
1,3-Dichlorobenzene	ug/g	12	0.05					<0.050	
1,4-Dichlorobenzene	ug/g	0.57	0.05					<0.050	
Dichlorodifluoromethane	ug/g	25	0.05					<0.050	
1,1-Dichloroethane	ug/g	0.6	0.05					<0.050	
1,2-Dichloroethane	ug/g	0.05	0.05					<0.050	
1,1-Dichloroethylene	ug/g	0.48	0.05					<0.050	
cis-1,2-Dichloroethylene	ug/g	2.5	0.05					<0.050	
trans-1,2-Dichloroethylene	ug/g	2.5	0.05					<0.050	
Methylene Chloride	ug/g	2	0.05					<0.050	
1,2-Dichloropropane	ug/g	0.68	0.05					<0.050	
cis-1,3-Dichloropropene	ug/g	-	-					<0.030	
trans-1,3-Dichloropropene	ug/g	-	-					<0.030	
1,3-Dichloropropene (cis & trans)	ug/g	0.081	0.05					<0.042	
Ethylbenzene	ug/g	1.6	0.05	<0.018		<0.018	<0.018	<0.018	<0.018
n-Hexane	ug/g	88	0.05					<0.050	
Methyl Ethyl Ketone	ug/g	88	0.5					<0.50	
Methyl Isobutyl Ketone	ug/g	210	0.5					<0.50	
MTBE	ug/g	2.3	0.05					<0.050	
Styrene	ug/g	43	0.05					<0.050	

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)
 Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use



ANALYTICAL REPORT

Volatile Organic Compounds - SOIL

Volatiles Organic Compounds - VOCs								
		Lab ID	L2655585-1	L2655585-2	L2655585-3	L2655585-4	L2655585-5	
		Sample Date	21-OCT-21	22-OCT-21	21-OCT-21	21-OCT-21	22-OCT-21	
		Sample ID	BH102 SS2	BH104 SS1	BH108 SS1	BH109 SS3	BH117 SS2	

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Hydrocarbons - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2655585-1	L2655585-2	L2655585-3	L2655585-4	L2655585-5
		#1	#2	Sample Date	21-OCT-21	22-OCT-21	21-OCT-21	21-OCT-21	22-OCT-21
				Sample ID	BH102 SS2	BH104 SS1	BH108 SS1	BH109 SS3	BH117 SS2
F1 (C6-C10)	ug/g	65	25		<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	65	25		<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	250	10		<10	<10	<10	<10	<10
F2-Naphth	ug/g	-	-		<10				<10
F3 (C16-C34)	ug/g	2500	240		<50	<50	<50	<50	<50
F3-PAH	ug/g	-	-		<50				<50
F4 (C34-C50)	ug/g	6600	120		<50	<50	<50	<50	<50
Total Hydrocarbons (C6-C50)	ug/g	-	-		<72	<72	<72	<72	<72
Chrom. to baseline at nC50	ppm	-	-		YES	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-		98.7	99.0	92.8	97.8	98.0
Surrogate: 3,4-Dichlorotoluene	%	-	-		106.8	86.4	103.3	83.8	88.7

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - SOIL

Analyte	Unit	Guide Limits			
		#1	#2		
Acenaphthene	ug/g	29	0.072	<0.050	<0.050
Acenaphthylene	ug/g	0.17	0.093	<0.050	<0.050
Anthracene	ug/g	0.74	0.22	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	0.36	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	0.3	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.96	0.47	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	9.6	0.68	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.96	0.48	<0.050	<0.050
Chrysene	ug/g	9.6	2.8	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	0.1	<0.050	<0.050
Fluoranthene	ug/g	9.6	0.69	<0.050	<0.050
Fluorene	ug/g	69	0.19	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.95	0.23	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	42	0.59	<0.042	<0.042
1-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030
2-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030
Naphthalene	ug/g	28	0.09	<0.013	<0.013
Phenanthrene	ug/g	16	0.69	<0.046	<0.046
Pyrene	ug/g	96	1	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	80.5	83.2
Surrogate: d14-Terphenyl	%	-	-	91.3	91.7

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
B-HWS-R511-WT	Soil	Boron-HWE-O.Reg 153/04 (July 2011)	HW EXTR, EPA 6010B
A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
BTX-511-HS-WT	Soil	BTEX-O.Reg 153/04 (July 2011)	SW846 8260
BTX is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/MS. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
CN-WAD-R511-WT	Soil	Cyanide (WAD)-O.Reg 153/04 (July 2011)	MOE 3015/APHA 4500CN I-WAD
The sample is extracted with a strong base for 16 hours, and then filtered. The filtrate is then distilled where the cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
CR-CR6-IC-WT	Soil	Hexavalent Chromium in Soil	SW846 3060A/7199
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. 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).			
EC-WT	Soil	Conductivity (EC)	MOEE E3138
A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter. 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).			
F1-F4-511-CALC-WT	Soil	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC, Pub #1310, Dec 2001-S
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC. Hydrocarbon results are expressed on a dry weight basis. 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.			

Reference Information

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Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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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-511-WT	Soil	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
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Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT	Soil	F2-F4-O.Reg 153/04 (July 2011)	CCME Tier 1
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Petroleum Hydrocarbons (F2-F4 fractions) are extracted from soil with 1:1 hexane:acetone using a rotary extractor. Extracts are treated with silica gel to remove polar organic interferences. F2, F3, & F4 are analyzed by GC-FID. F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where both F4 (C34-C50) and F4G-sg are reported for a sample, the larger of the two values is used for comparison against the relevant CCME guideline for F4.
7. F4G-sg cannot be added to the C6 to C50 hydrocarbon results to obtain an estimate of total extractable hydrocarbons.
8. This method is validated for use.
9. Data from analysis of validation and quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram, unless otherwise indicated.

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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

HG-200.2-CVAA-WT	Soil	Mercury in Soil by CVAAS	EPA 200.2/1631E (mod)
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Soil samples are digested with nitric and hydrochloric acids, followed by analysis 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).

MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020B (mod)
--------------------------	------	-----------------------------	-----------------------

Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.

Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H₂S) may be excluded if lost during sampling, storage, or digestion.

Reference Information

L2655585 CONT'D....
Job Reference: G2S21366
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Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
METHYLNAPS-CALC-WT	Soil	ABN-Calculated Parameters	SW846 8270
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PAH-511-WT	Soil	PAH-O.Reg 153/04 (July 2011)	SW846 3510/8270
A representative sub-sample of soil is fortified with deuterium-labelled surrogates and a mechanical shaking technique is used to extract the sample with a mixture of methanol and toluene. The extracts are concentrated and analyzed by GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
PH-WT	Soil	pH	MOEE E3137A
A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.			
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).			
SAR-R511-WT	Soil	SAR-O.Reg 153/04 (July 2011)	SW846 6010C
A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Soil	VOC-O.Reg 153/04 (July 2011)	SW846 8260 (511)
Soil and sediment samples are extracted in methanol and analyzed by headspace-GC/MS.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
XYLENES-SUM-CALC-WT	Soil	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.			
Chain of Custody Numbers:			
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		

Reference Information

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Job Reference: G2S21366
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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 ww - milligrams per kilogram based on wet weight of sample

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

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

< - Less than.

D.L. - The reporting limit.

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

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.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



Quality Control Report

Workorder: L2655585

Report Date: 12-NOV-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT		Soil						
Batch	R5632610							
WG3648198-4	DUP	L2655050-2						
Boron (B), Hot Water Ext.		0.15	0.15		ug/g	1.0	30	29-OCT-21
WG3648198-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			106.5		%		70-130	29-OCT-21
WG3648198-3	LCS							
Boron (B), Hot Water Ext.			106.0		%		70-130	29-OCT-21
WG3648198-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	29-OCT-21
Batch	R5632620							
WG3648208-4	DUP	L2655244-7						
Boron (B), Hot Water Ext.		0.12	0.12		ug/g	5.3	30	29-OCT-21
WG3648208-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			107.2		%		70-130	29-OCT-21
WG3648208-3	LCS							
Boron (B), Hot Water Ext.			107.0		%		70-130	29-OCT-21
WG3648208-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	29-OCT-21
BTX-511-HS-WT		Soil						
Batch	R5630015							
WG3646316-4	DUP	WG3646316-3						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	28-OCT-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	28-OCT-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	28-OCT-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	28-OCT-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	28-OCT-21
WG3646316-2	LCS							
Benzene			97.6		%		70-130	28-OCT-21
Ethylbenzene			97.7		%		70-130	28-OCT-21
m+p-Xylenes			98.6		%		70-130	28-OCT-21
o-Xylene			121.0		%		70-130	28-OCT-21
Toluene			109.3		%		70-130	28-OCT-21
WG3646316-1	MB							
Benzene			<0.0068		ug/g		0.0068	28-OCT-21
Ethylbenzene			<0.018		ug/g		0.018	28-OCT-21
m+p-Xylenes			<0.030		ug/g		0.03	28-OCT-21
o-Xylene			<0.020		ug/g		0.02	28-OCT-21



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT Soil								
Batch	R5630015							
WG3646316-1 MB								
Toluene			<0.080		ug/g		0.08	28-OCT-21
Surrogate: 1,4-Difluorobenzene			110.8		%		50-140	28-OCT-21
Surrogate: 4-Bromofluorobenzene			102.0		%		50-140	28-OCT-21
WG3646316-5 MS		WG3646316-3						
Benzene			104.5		%		60-140	28-OCT-21
Ethylbenzene			98.8		%		60-140	28-OCT-21
m+p-Xylenes			100.5		%		60-140	28-OCT-21
o-Xylene			102.1		%		60-140	28-OCT-21
Toluene			104.1		%		60-140	28-OCT-21
CN-WAD-R511-WT Soil								
Batch	R5629606							
WG3646271-3 DUP		L2655244-25						
Cyanide, Weak Acid Diss		<0.50	<0.50	RPD-NA	ug/g	N/A	35	28-OCT-21
WG3646271-2 LCS								
Cyanide, Weak Acid Diss			99.7		%		80-120	27-OCT-21
WG3646271-1 MB								
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	27-OCT-21
WG3646271-4 MS		L2655244-25						
Cyanide, Weak Acid Diss			104.5		%		70-130	28-OCT-21
CR-CR6-IC-WT Soil								
Batch	R5633776							
WG3646278-4 CRM		WT-SQC012						
Chromium, Hexavalent			86.8		%		70-130	01-NOV-21
WG3646278-3 DUP		L2655244-1						
Chromium, Hexavalent		0.40	0.41		ug/g	1.8	35	01-NOV-21
WG3646278-2 LCS								
Chromium, Hexavalent			92.2		%		80-120	01-NOV-21
WG3646278-1 MB								
Chromium, Hexavalent			<0.20		ug/g		0.2	01-NOV-21
EC-WT Soil								
Batch	R5634003							
WG3648199-4 DUP		WG3648199-3						
Conductivity		0.250	0.251		mS/cm	0.4	20	01-NOV-21
WG3648199-2 IRM		WT SAR4						
Conductivity			110.3		%		70-130	01-NOV-21
WG3650057-1 LCS								



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WT		Soil						
Batch	R5634003							
WG3650057-1	LCS							
Conductivity			97.0		%		90-110	01-NOV-21
WG3648199-1	MB							
Conductivity			<0.0040		mS/cm		0.004	01-NOV-21
Batch	R5634303							
WG3648212-5	DUP	WG3648212-4						
Conductivity		0.134	0.145		mS/cm	7.9	20	02-NOV-21
WG3648212-2	IRM	WT SAR4						
Conductivity			107.0		%		70-130	02-NOV-21
WG3650461-1	LCS							
Conductivity			99.2		%		90-110	02-NOV-21
WG3648212-1	MB							
Conductivity			<0.0040		mS/cm		0.004	02-NOV-21
F1-HS-511-WT		Soil						
Batch	R5630015							
WG3646316-4	DUP	WG3646316-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	28-OCT-21
WG3646316-2	LCS							
F1 (C6-C10)			104.4		%		80-120	28-OCT-21
WG3646316-5	MS	WG3646316-3						
F1 (C6-C10)			102.1		%		60-140	28-OCT-21
Batch	R5632698							
WG3647312-4	DUP	WG3647312-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	29-OCT-21
WG3647312-2	LCS							
F1 (C6-C10)			97.8		%		80-120	29-OCT-21
WG3647312-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	29-OCT-21
Surrogate: 3,4-Dichlorotoluene			83.3		%		60-140	29-OCT-21
WG3647312-5	MS	WG3647312-3						
F1 (C6-C10)			106.8		%		60-140	29-OCT-21
F2-F4-511-WT		Soil						
Batch	R5631284							
WG3646254-3	DUP	WG3646254-5						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	30	28-OCT-21
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	30	28-OCT-21
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	30	28-OCT-21



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-511-WT Soil								
Batch	R5631284							
WG3646254-2	LCS							
F2 (C10-C16)			105.0		%		80-120	28-OCT-21
F3 (C16-C34)			105.2		%		80-120	28-OCT-21
F4 (C34-C50)			94.6		%		80-120	28-OCT-21
WG3646254-1	MB							
F2 (C10-C16)			<10		ug/g		10	28-OCT-21
F3 (C16-C34)			<50		ug/g		50	28-OCT-21
F4 (C34-C50)			<50		ug/g		50	28-OCT-21
Surrogate: 2-Bromobenzotrifluoride			102.3		%		60-140	28-OCT-21
WG3646254-4	MS	WG3646254-5						
F2 (C10-C16)			90.2		%		60-140	28-OCT-21
F3 (C16-C34)			91.4		%		60-140	28-OCT-21
F4 (C34-C50)			85.9		%		60-140	28-OCT-21
HG-200.2-CVAA-WT Soil								
Batch	R5632511							
WG3648193-2	CRM	WT-SS-2						
Mercury (Hg)			110.0		%		70-130	29-OCT-21
WG3648193-6	DUP	WG3648193-5						
Mercury (Hg)		0.0176	0.0150		ug/g	16	40	29-OCT-21
WG3648193-3	LCS							
Mercury (Hg)			111.0		%		80-120	29-OCT-21
WG3648193-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	29-OCT-21
Batch	R5632513							
WG3648213-2	CRM	WT-SS-2						
Mercury (Hg)			104.9		%		70-130	29-OCT-21
WG3648213-7	DUP	WG3648213-6						
Mercury (Hg)		0.0113	0.0103		ug/g	9.0	40	29-OCT-21
WG3648213-3	LCS							
Mercury (Hg)			111.0		%		80-120	29-OCT-21
WG3648213-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	29-OCT-21
MET-200.2-CCMS-WT Soil								
Batch	R5633958							
WG3648193-2	CRM	WT-SS-2						
Antimony (Sb)			87.6		%		70-130	01-NOV-21
Arsenic (As)			99.8		%		70-130	01-NOV-21



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4361 Harvester Road Unit 12
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Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5633958							
WG3648193-2	CRM	WT-SS-2						
Barium (Ba)			101.1		%		70-130	01-NOV-21
Beryllium (Be)			96.4		%		70-130	01-NOV-21
Boron (B)			7.7		mg/kg		3.5-13.5	01-NOV-21
Cadmium (Cd)			99.9		%		70-130	01-NOV-21
Chromium (Cr)			95.3		%		70-130	01-NOV-21
Cobalt (Co)			97.8		%		70-130	01-NOV-21
Copper (Cu)			101.9		%		70-130	01-NOV-21
Lead (Pb)			96.2		%		70-130	01-NOV-21
Molybdenum (Mo)			96.4		%		70-130	01-NOV-21
Nickel (Ni)			98.6		%		70-130	01-NOV-21
Selenium (Se)			0.12		mg/kg		0-0.34	01-NOV-21
Silver (Ag)			78.8		%		70-130	01-NOV-21
Thallium (Tl)			0.069		mg/kg		0.029-0.129	01-NOV-21
Uranium (U)			93.9		%		70-130	01-NOV-21
Vanadium (V)			95.8		%		70-130	01-NOV-21
Zinc (Zn)			94.7		%		70-130	01-NOV-21
WG3648193-6	DUP	WG3648193-5						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	01-NOV-21
Arsenic (As)		2.83	3.04		ug/g	7.0	30	01-NOV-21
Barium (Ba)		92.4	105		ug/g	13	40	01-NOV-21
Beryllium (Be)		0.54	0.51		ug/g	4.1	30	01-NOV-21
Boron (B)		16.5	15.1		ug/g	9.4	30	01-NOV-21
Cadmium (Cd)		0.058	0.062		ug/g	7.7	30	01-NOV-21
Chromium (Cr)		23.7	25.4		ug/g	6.5	30	01-NOV-21
Cobalt (Co)		7.75	8.36		ug/g	7.5	30	01-NOV-21
Copper (Cu)		18.3	19.7		ug/g	7.6	30	01-NOV-21
Lead (Pb)		6.33	6.19		ug/g	2.3	40	01-NOV-21
Molybdenum (Mo)		0.50	0.49		ug/g	2.2	40	01-NOV-21
Nickel (Ni)		17.8	19.1		ug/g	7.0	30	01-NOV-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	01-NOV-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	01-NOV-21
Thallium (Tl)		0.128	0.127		ug/g	1.3	30	01-NOV-21
Uranium (U)		0.771	0.749		ug/g	2.8	30	01-NOV-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5633958							
WG3648193-6	DUP	WG3648193-5						
Vanadium (V)		31.5	33.2		ug/g	5.4	30	01-NOV-21
Zinc (Zn)		31.4	33.5		ug/g	6.6	30	01-NOV-21
WG3648193-4	LCS							
Antimony (Sb)			105.5		%		80-120	01-NOV-21
Arsenic (As)			106.9		%		80-120	01-NOV-21
Barium (Ba)			113.2		%		80-120	01-NOV-21
Beryllium (Be)			104.2		%		80-120	01-NOV-21
Boron (B)			100.6		%		80-120	01-NOV-21
Cadmium (Cd)			102.0		%		80-120	01-NOV-21
Chromium (Cr)			104.3		%		80-120	01-NOV-21
Cobalt (Co)			104.9		%		80-120	01-NOV-21
Copper (Cu)			103.6		%		80-120	01-NOV-21
Lead (Pb)			104.3		%		80-120	01-NOV-21
Molybdenum (Mo)			106.1		%		80-120	01-NOV-21
Nickel (Ni)			103.2		%		80-120	01-NOV-21
Selenium (Se)			103.4		%		80-120	01-NOV-21
Silver (Ag)			101.5		%		80-120	01-NOV-21
Thallium (Tl)			103.5		%		80-120	01-NOV-21
Uranium (U)			101.3		%		80-120	01-NOV-21
Vanadium (V)			106.3		%		80-120	01-NOV-21
Zinc (Zn)			96.6		%		80-120	01-NOV-21
WG3648193-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	01-NOV-21
Arsenic (As)			<0.10		mg/kg		0.1	01-NOV-21
Barium (Ba)			<0.50		mg/kg		0.5	01-NOV-21
Beryllium (Be)			<0.10		mg/kg		0.1	01-NOV-21
Boron (B)			<5.0		mg/kg		5	01-NOV-21
Cadmium (Cd)			<0.020		mg/kg		0.02	01-NOV-21
Chromium (Cr)			<0.50		mg/kg		0.5	01-NOV-21
Cobalt (Co)			<0.10		mg/kg		0.1	01-NOV-21
Copper (Cu)			<0.50		mg/kg		0.5	01-NOV-21
Lead (Pb)			<0.50		mg/kg		0.5	01-NOV-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	01-NOV-21
Nickel (Ni)			<0.50		mg/kg		0.5	01-NOV-21



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
Soil								
Batch R5633958								
WG3648193-1 MB								
Selenium (Se)			<0.20		mg/kg		0.2	01-NOV-21
Silver (Ag)			<0.10		mg/kg		0.1	01-NOV-21
Thallium (Tl)			<0.050		mg/kg		0.05	01-NOV-21
Uranium (U)			<0.050		mg/kg		0.05	01-NOV-21
Vanadium (V)			<0.20		mg/kg		0.2	01-NOV-21
Zinc (Zn)			<2.0		mg/kg		2	01-NOV-21
Batch R5633975								
WG3648213-2 CRM								
		WT-SS-2						
Antimony (Sb)			105.9		%		70-130	01-NOV-21
Arsenic (As)			113.6		%		70-130	01-NOV-21
Barium (Ba)			123.2		%		70-130	01-NOV-21
Beryllium (Be)			106.5		%		70-130	01-NOV-21
Boron (B)			9.0		mg/kg		3.5-13.5	01-NOV-21
Cadmium (Cd)			119.3		%		70-130	01-NOV-21
Chromium (Cr)			112.2		%		70-130	01-NOV-21
Cobalt (Co)			115.8		%		70-130	01-NOV-21
Copper (Cu)			117.2		%		70-130	01-NOV-21
Lead (Pb)			122.3		%		70-130	01-NOV-21
Molybdenum (Mo)			110.9		%		70-130	01-NOV-21
Nickel (Ni)			116.2		%		70-130	01-NOV-21
Selenium (Se)			0.15		mg/kg		0-0.34	01-NOV-21
Silver (Ag)			103.5		%		70-130	01-NOV-21
Thallium (Tl)			0.085		mg/kg		0.029-0.129	01-NOV-21
Uranium (U)			103.6		%		70-130	01-NOV-21
Vanadium (V)			116.4		%		70-130	01-NOV-21
Zinc (Zn)			111.0		%		70-130	01-NOV-21
WG3648213-7 DUP								
		WG3648213-6						
Antimony (Sb)		0.13	0.12		ug/g	7.4	30	01-NOV-21
Arsenic (As)		5.27	5.29		ug/g	0.3	30	01-NOV-21
Barium (Ba)		58.7	60.4		ug/g	2.8	40	01-NOV-21
Beryllium (Be)		0.63	0.63		ug/g	0.7	30	01-NOV-21
Boron (B)		16.6	17.7		ug/g	6.7	30	01-NOV-21
Cadmium (Cd)		0.083	0.071		ug/g	15	30	01-NOV-21
Chromium (Cr)		23.0	22.7		ug/g	1.7	30	01-NOV-21



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5633975							
WG3648213-7	DUP	WG3648213-6						
Cobalt (Co)		10.9	10.8		ug/g	1.0	30	01-NOV-21
Copper (Cu)		21.0	21.6		ug/g	2.7	30	01-NOV-21
Lead (Pb)		6.63	6.64		ug/g	0.2	40	01-NOV-21
Molybdenum (Mo)		0.36	0.35		ug/g	1.0	40	01-NOV-21
Nickel (Ni)		23.6	23.2		ug/g	1.6	30	01-NOV-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	01-NOV-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	01-NOV-21
Thallium (Tl)		0.117	0.117		ug/g	0.1	30	01-NOV-21
Uranium (U)		0.609	0.596		ug/g	2.2	30	01-NOV-21
Vanadium (V)		33.1	33.5		ug/g	1.3	30	01-NOV-21
Zinc (Zn)		42.4	42.2		ug/g	0.5	30	01-NOV-21
WG3648213-4	LCS							
Antimony (Sb)			111.5		%		80-120	01-NOV-21
Arsenic (As)			112.7		%		80-120	01-NOV-21
Barium (Ba)			109.9		%		80-120	01-NOV-21
Beryllium (Be)			93.6		%		80-120	01-NOV-21
Boron (B)			92.3		%		80-120	01-NOV-21
Cadmium (Cd)			103.2		%		80-120	01-NOV-21
Chromium (Cr)			108.6		%		80-120	01-NOV-21
Cobalt (Co)			108.5		%		80-120	01-NOV-21
Copper (Cu)			105.4		%		80-120	01-NOV-21
Lead (Pb)			106.1		%		80-120	01-NOV-21
Molybdenum (Mo)			106.9		%		80-120	01-NOV-21
Nickel (Ni)			106.8		%		80-120	01-NOV-21
Selenium (Se)			108.1		%		80-120	01-NOV-21
Silver (Ag)			100.4		%		80-120	01-NOV-21
Thallium (Tl)			108.0		%		80-120	01-NOV-21
Uranium (U)			105.9		%		80-120	01-NOV-21
Vanadium (V)			112.4		%		80-120	01-NOV-21
Zinc (Zn)			110.6		%		80-120	01-NOV-21
WG3648213-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	01-NOV-21
Arsenic (As)			<0.10		mg/kg		0.1	01-NOV-21
Barium (Ba)			<0.50		mg/kg		0.5	



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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch R5633975								
WG3648213-1	MB							
Barium (Ba)			<0.50		mg/kg		0.5	01-NOV-21
Beryllium (Be)			<0.10		mg/kg		0.1	01-NOV-21
Boron (B)			<5.0		mg/kg		5	01-NOV-21
Cadmium (Cd)			<0.020		mg/kg		0.02	01-NOV-21
Chromium (Cr)			<0.50		mg/kg		0.5	01-NOV-21
Cobalt (Co)			<0.10		mg/kg		0.1	01-NOV-21
Copper (Cu)			<0.50		mg/kg		0.5	01-NOV-21
Lead (Pb)			<0.50		mg/kg		0.5	01-NOV-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	01-NOV-21
Nickel (Ni)			<0.50		mg/kg		0.5	01-NOV-21
Selenium (Se)			<0.20		mg/kg		0.2	01-NOV-21
Silver (Ag)			<0.10		mg/kg		0.1	01-NOV-21
Thallium (Tl)			<0.050		mg/kg		0.05	01-NOV-21
Uranium (U)			<0.050		mg/kg		0.05	01-NOV-21
Vanadium (V)			<0.20		mg/kg		0.2	01-NOV-21
Zinc (Zn)			<2.0		mg/kg		2	01-NOV-21
MOISTURE-WT		Soil						
Batch R5629179								
WG3646281-3	DUP	L2649331-1						
% Moisture		4.34	4.09		%	5.9	20	28-OCT-21
WG3646281-2	LCS							
% Moisture			100.1		%		90-110	28-OCT-21
WG3646281-1	MB							
% Moisture			<0.25		%		0.25	28-OCT-21
PAH-511-WT		Soil						
Batch R5631070								
WG3646365-3	DUP	WG3646365-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	28-OCT-21
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	28-OCT-21
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R5631070							
WG3646365-3	DUP	WG3646365-5						
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	28-OCT-21
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	28-OCT-21
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	28-OCT-21
WG3646365-2	LCS							
1-Methylnaphthalene			94.2		%		50-140	28-OCT-21
2-Methylnaphthalene			91.9		%		50-140	28-OCT-21
Acenaphthene			91.4		%		50-140	28-OCT-21
Acenaphthylene			89.1		%		50-140	28-OCT-21
Anthracene			80.8		%		50-140	28-OCT-21
Benzo(a)anthracene			98.6		%		50-140	28-OCT-21
Benzo(a)pyrene			81.0		%		50-140	28-OCT-21
Benzo(b&j)fluoranthene			84.0		%		50-140	28-OCT-21
Benzo(g,h,i)perylene			90.8		%		50-140	28-OCT-21
Benzo(k)fluoranthene			90.7		%		50-140	28-OCT-21
Chrysene			97.1		%		50-140	28-OCT-21
Dibenz(a,h)anthracene			93.0		%		50-140	28-OCT-21
Fluoranthene			93.2		%		50-140	28-OCT-21
Fluorene			87.8		%		50-140	28-OCT-21
Indeno(1,2,3-cd)pyrene			86.6		%		50-140	28-OCT-21
Naphthalene			89.2		%		50-140	28-OCT-21
Phenanthrene			91.1		%		50-140	28-OCT-21
Pyrene			90.8		%		50-140	28-OCT-21
WG3646365-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	28-OCT-21
2-Methylnaphthalene			<0.030		ug/g		0.03	28-OCT-21
Acenaphthene			<0.050		ug/g		0.05	



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
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Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R5631070							
WG3646365-1 MB								
Acenaphthene			<0.050		ug/g		0.05	28-OCT-21
Acenaphthylene			<0.050		ug/g		0.05	28-OCT-21
Anthracene			<0.050		ug/g		0.05	28-OCT-21
Benzo(a)anthracene			<0.050		ug/g		0.05	28-OCT-21
Benzo(a)pyrene			<0.050		ug/g		0.05	28-OCT-21
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	28-OCT-21
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	28-OCT-21
Benzo(k)fluoranthene			<0.050		ug/g		0.05	28-OCT-21
Chrysene			<0.050		ug/g		0.05	28-OCT-21
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	28-OCT-21
Fluoranthene			<0.050		ug/g		0.05	28-OCT-21
Fluorene			<0.050		ug/g		0.05	28-OCT-21
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	28-OCT-21
Naphthalene			<0.013		ug/g		0.013	28-OCT-21
Phenanthrene			<0.046		ug/g		0.046	28-OCT-21
Pyrene			<0.050		ug/g		0.05	28-OCT-21
Surrogate: 2-Fluorobiphenyl			82.7		%		50-140	28-OCT-21
Surrogate: d14-Terphenyl			90.6		%		50-140	28-OCT-21
WG3646365-4 MS		WG3646365-5						
1-Methylnaphthalene			94.1		%		50-140	28-OCT-21
2-Methylnaphthalene			90.9		%		50-140	28-OCT-21
Acenaphthene			91.9		%		50-140	28-OCT-21
Acenaphthylene			89.7		%		50-140	28-OCT-21
Anthracene			81.8		%		50-140	28-OCT-21
Benzo(a)anthracene			101.3		%		50-140	28-OCT-21
Benzo(a)pyrene			79.0		%		50-140	28-OCT-21
Benzo(b&j)fluoranthene			84.2		%		50-140	28-OCT-21
Benzo(g,h,i)perylene			83.5		%		50-140	28-OCT-21
Benzo(k)fluoranthene			88.3		%		50-140	28-OCT-21
Chrysene			94.1		%		50-140	28-OCT-21
Dibenz(a,h)anthracene			89.2		%		50-140	28-OCT-21
Fluoranthene			94.5		%		50-140	28-OCT-21
Fluorene			89.8		%		50-140	28-OCT-21
Indeno(1,2,3-cd)pyrene			88.1		%		50-140	28-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT								
Soil								
Batch	R5631070							
WG3646365-4	MS	WG3646365-5						
Naphthalene			86.7		%		50-140	28-OCT-21
Phenanthrene			89.0		%		50-140	28-OCT-21
Pyrene			90.8		%		50-140	28-OCT-21
PH-WT								
Soil								
Batch	R5629467							
WG3646272-1	DUP	L2651876-7						
pH		7.97	7.97	J	pH units	0.00	0.3	27-OCT-21
WG3646502-1	LCS							
pH			7.07		pH units		6.9-7.1	27-OCT-21
SAR-R511-WT								
Soil								
Batch	R5632671							
WG3648212-5	DUP	WG3648212-4						
Calcium (Ca)		19.2	20.8		mg/L	8.0	30	29-OCT-21
Sodium (Na)		2.62	2.76		mg/L	5.2	30	29-OCT-21
Magnesium (Mg)		1.69	1.78		mg/L	5.2	30	29-OCT-21
WG3648212-2	IRM	WT SAR4						
Calcium (Ca)			99.3		%		70-130	29-OCT-21
Sodium (Na)			85.2		%		70-130	29-OCT-21
Magnesium (Mg)			97.4		%		70-130	29-OCT-21
WG3648212-3	LCS							
Calcium (Ca)			107.0		%		80-120	29-OCT-21
Sodium (Na)			106.0		%		80-120	29-OCT-21
Magnesium (Mg)			104.8		%		80-120	29-OCT-21
WG3648212-1	MB							
Calcium (Ca)			<0.50		mg/L		0.5	29-OCT-21
Sodium (Na)			<0.50		mg/L		0.5	29-OCT-21
Magnesium (Mg)			<0.50		mg/L		0.5	29-OCT-21
Batch	R5632939							
WG3648199-4	DUP	WG3648199-3						
Calcium (Ca)		11.2	11.5		mg/L	2.6	30	29-OCT-21
Sodium (Na)		28.2	28.3		mg/L	0.4	30	29-OCT-21
Magnesium (Mg)		6.36	6.36		mg/L	0.0	30	29-OCT-21
WG3648199-2	IRM	WT SAR4						
Calcium (Ca)			96.5		%		70-130	29-OCT-21
Sodium (Na)			93.3		%		70-130	29-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SAR-R511-WT		Soil						
Batch	R5632939							
WG3648199-2	IRM	WT SAR4						
Magnesium (Mg)			99.1		%		70-130	29-OCT-21
WG3648199-5	LCS							
Calcium (Ca)			106.3		%		80-120	29-OCT-21
Sodium (Na)			104.4		%		80-120	29-OCT-21
Magnesium (Mg)			103.6		%		80-120	29-OCT-21
WG3648199-1	MB							
Calcium (Ca)			<0.50		mg/L		0.5	29-OCT-21
Sodium (Na)			<0.50		mg/L		0.5	29-OCT-21
Magnesium (Mg)			<0.50		mg/L		0.5	29-OCT-21
VOC-511-HS-WT		Soil						
Batch	R5632698							
WG3647312-4	DUP	WG3647312-3						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	29-OCT-21
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	29-OCT-21
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5632698							
WG3647312-4 DUP		WG3647312-3						
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	29-OCT-21
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	29-OCT-21
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	29-OCT-21
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	29-OCT-21
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	29-OCT-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	29-OCT-21
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	29-OCT-21
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	29-OCT-21
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	29-OCT-21
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-OCT-21
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	29-OCT-21
WG3647312-2 LCS								
1,1,1,2-Tetrachloroethane			92.2		%		60-130	29-OCT-21
1,1,2,2-Tetrachloroethane			92.5		%		60-130	29-OCT-21
1,1,1-Trichloroethane			90.9		%		60-130	29-OCT-21
1,1,2-Trichloroethane			97.0		%		60-130	29-OCT-21
1,1-Dichloroethane			81.9		%		60-130	29-OCT-21
1,1-Dichloroethylene			81.0		%		60-130	29-OCT-21
1,2-Dibromoethane			96.0		%		70-130	29-OCT-21
1,2-Dichlorobenzene			94.5		%		70-130	29-OCT-21
1,2-Dichloroethane			87.5		%		60-130	29-OCT-21
1,2-Dichloropropane			88.3		%		70-130	29-OCT-21
1,3-Dichlorobenzene			93.1		%		70-130	29-OCT-21
1,4-Dichlorobenzene			92.0		%		70-130	29-OCT-21
Acetone			95.2		%		60-140	29-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5632698							
WG3647312-2	LCS							
Benzene			89.7		%		70-130	29-OCT-21
Bromodichloromethane			94.8		%		50-140	29-OCT-21
Bromoform			91.8		%		70-130	29-OCT-21
Bromomethane			83.2		%		50-140	29-OCT-21
Carbon tetrachloride			87.1		%		70-130	29-OCT-21
Chlorobenzene			92.6		%		70-130	29-OCT-21
Chloroform			89.7		%		70-130	29-OCT-21
cis-1,2-Dichloroethylene			93.0		%		70-130	29-OCT-21
cis-1,3-Dichloropropene			83.5		%		70-130	29-OCT-21
Dibromochloromethane			95.8		%		60-130	29-OCT-21
Dichlorodifluoromethane			54.6		%		50-140	29-OCT-21
Ethylbenzene			91.2		%		70-130	29-OCT-21
n-Hexane			78.0		%		70-130	29-OCT-21
Methylene Chloride			86.6		%		70-130	29-OCT-21
MTBE			90.9		%		70-130	29-OCT-21
m+p-Xylenes			89.2		%		70-130	29-OCT-21
Methyl Ethyl Ketone			93.5		%		60-140	29-OCT-21
Methyl Isobutyl Ketone			90.4		%		60-140	29-OCT-21
o-Xylene			90.0		%		70-130	29-OCT-21
Styrene			92.3		%		70-130	29-OCT-21
Tetrachloroethylene			92.0		%		60-130	29-OCT-21
Toluene			91.4		%		70-130	29-OCT-21
trans-1,2-Dichloroethylene			80.7		%		60-130	29-OCT-21
trans-1,3-Dichloropropene			79.2		%		70-130	29-OCT-21
Trichloroethylene			91.4		%		60-130	29-OCT-21
Trichlorofluoromethane			82.9		%		50-140	29-OCT-21
Vinyl chloride			66.6		%		60-140	29-OCT-21
WG3647312-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	29-OCT-21
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	29-OCT-21
1,1,1-Trichloroethane			<0.050		ug/g		0.05	29-OCT-21
1,1,2-Trichloroethane			<0.050		ug/g		0.05	29-OCT-21
1,1-Dichloroethane			<0.050		ug/g		0.05	29-OCT-21
1,1-Dichloroethylene			<0.050		ug/g		0.05	29-OCT-21



Quality Control Report

Workorder: L2655585

Report Date: 12-NOV-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5632698							
WG3647312-1	MB							
1,2-Dibromoethane			<0.050		ug/g		0.05	29-OCT-21
1,2-Dichlorobenzene			<0.050		ug/g		0.05	29-OCT-21
1,2-Dichloroethane			<0.050		ug/g		0.05	29-OCT-21
1,2-Dichloropropane			<0.050		ug/g		0.05	29-OCT-21
1,3-Dichlorobenzene			<0.050		ug/g		0.05	29-OCT-21
1,4-Dichlorobenzene			<0.050		ug/g		0.05	29-OCT-21
Acetone			<0.50		ug/g		0.5	29-OCT-21
Benzene			<0.0068		ug/g		0.0068	29-OCT-21
Bromodichloromethane			<0.050		ug/g		0.05	29-OCT-21
Bromoform			<0.050		ug/g		0.05	29-OCT-21
Bromomethane			<0.050		ug/g		0.05	29-OCT-21
Carbon tetrachloride			<0.050		ug/g		0.05	29-OCT-21
Chlorobenzene			<0.050		ug/g		0.05	29-OCT-21
Chloroform			<0.050		ug/g		0.05	29-OCT-21
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	29-OCT-21
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	29-OCT-21
Dibromochloromethane			<0.050		ug/g		0.05	29-OCT-21
Dichlorodifluoromethane			<0.050		ug/g		0.05	29-OCT-21
Ethylbenzene			<0.018		ug/g		0.018	29-OCT-21
n-Hexane			<0.050		ug/g		0.05	29-OCT-21
Methylene Chloride			<0.050		ug/g		0.05	29-OCT-21
MTBE			<0.050		ug/g		0.05	29-OCT-21
m+p-Xylenes			<0.030		ug/g		0.03	29-OCT-21
Methyl Ethyl Ketone			<0.50		ug/g		0.5	29-OCT-21
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	29-OCT-21
o-Xylene			<0.020		ug/g		0.02	29-OCT-21
Styrene			<0.050		ug/g		0.05	29-OCT-21
Tetrachloroethylene			<0.050		ug/g		0.05	29-OCT-21
Toluene			<0.080		ug/g		0.08	29-OCT-21
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	29-OCT-21
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	29-OCT-21
Trichloroethylene			<0.010		ug/g		0.01	29-OCT-21
Trichlorofluoromethane			<0.050		ug/g		0.05	29-OCT-21



Quality Control Report

Workorder: L2655585

Report Date: 12-NOV-21

Page 17 of 19

Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5632698							
WG3647312-1 MB								
Vinyl chloride			<0.020		ug/g		0.02	29-OCT-21
Surrogate: 1,4-Difluorobenzene			100.9		%		50-140	29-OCT-21
Surrogate: 4-Bromofluorobenzene			86.0		%		50-140	29-OCT-21
WG3647312-5 MS		WG3647312-3						
1,1,1,2-Tetrachloroethane			100.5		%		50-140	29-OCT-21
1,1,2,2-Tetrachloroethane			103.9		%		50-140	29-OCT-21
1,1,1-Trichloroethane			99.3		%		50-140	29-OCT-21
1,1,2-Trichloroethane			107.6		%		50-140	29-OCT-21
1,1-Dichloroethane			90.8		%		50-140	29-OCT-21
1,1-Dichloroethylene			92.7		%		50-140	29-OCT-21
1,2-Dibromoethane			107.5		%		50-140	29-OCT-21
1,2-Dichlorobenzene			101.1		%		50-140	29-OCT-21
1,2-Dichloroethane			98.1		%		50-140	29-OCT-21
1,2-Dichloropropane			97.1		%		50-140	29-OCT-21
1,3-Dichlorobenzene			98.0		%		50-140	29-OCT-21
1,4-Dichlorobenzene			97.1		%		50-140	29-OCT-21
Acetone			109.7		%		50-140	29-OCT-21
Benzene			98.7		%		50-140	29-OCT-21
Bromodichloromethane			104.1		%		50-140	29-OCT-21
Bromoform			102.1		%		50-140	29-OCT-21
Bromomethane			99.9		%		50-140	29-OCT-21
Carbon tetrachloride			94.7		%		50-140	29-OCT-21
Chlorobenzene			99.7		%		50-140	29-OCT-21
Chloroform			98.5		%		50-140	29-OCT-21
cis-1,2-Dichloroethylene			102.3		%		50-140	29-OCT-21
cis-1,3-Dichloropropene			87.7		%		50-140	29-OCT-21
Dibromochloromethane			106.2		%		50-140	29-OCT-21
Dichlorodifluoromethane			96.4		%		50-140	29-OCT-21
Ethylbenzene			97.2		%		50-140	29-OCT-21
n-Hexane			91.4		%		50-140	29-OCT-21
Methylene Chloride			96.4		%		50-140	29-OCT-21
MTBE			101.0		%		50-140	29-OCT-21
m+p-Xylenes			95.0		%		50-140	29-OCT-21
Methyl Ethyl Ketone			109.1		%		50-140	29-OCT-21



Quality Control Report

Workorder: L2655585

Report Date: 12-NOV-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Soil							
Batch	R5632698							
WG3647312-5 MS		WG3647312-3						
Methyl Isobutyl Ketone			103.1		%		50-140	29-OCT-21
o-Xylene			96.3		%		50-140	29-OCT-21
Styrene			99.6		%		50-140	29-OCT-21
Tetrachloroethylene			97.7		%		50-140	29-OCT-21
Toluene			98.4		%		50-140	29-OCT-21
trans-1,2-Dichloroethylene			88.5		%		50-140	29-OCT-21
trans-1,3-Dichloropropene			83.3		%		50-140	29-OCT-21
Trichloroethylene			98.3		%		50-140	29-OCT-21
Trichlorofluoromethane			98.9		%		50-140	29-OCT-21
Vinyl chloride			86.5		%		50-140	29-OCT-21

Quality Control Report

Workorder: L2655585

Report Date: 12-NOV-21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4
Contact: DANA HASLETT

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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.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

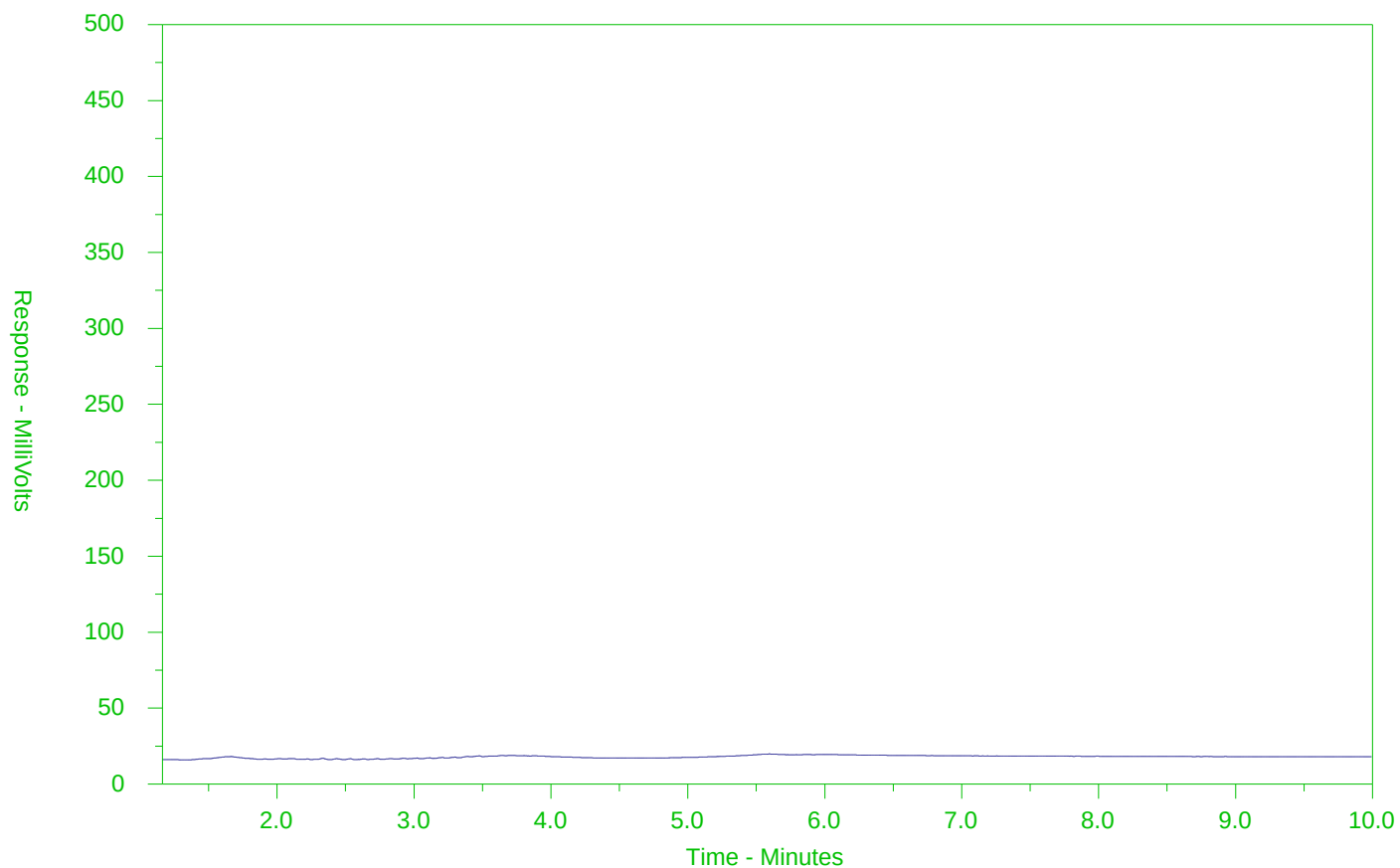
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

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

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

CCME F2-F4 **HYDROCARBON DISTRIBUTION REPORT**

ALS Sample ID: L2655585-1
Client Sample ID: BH102 SS2



← 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.

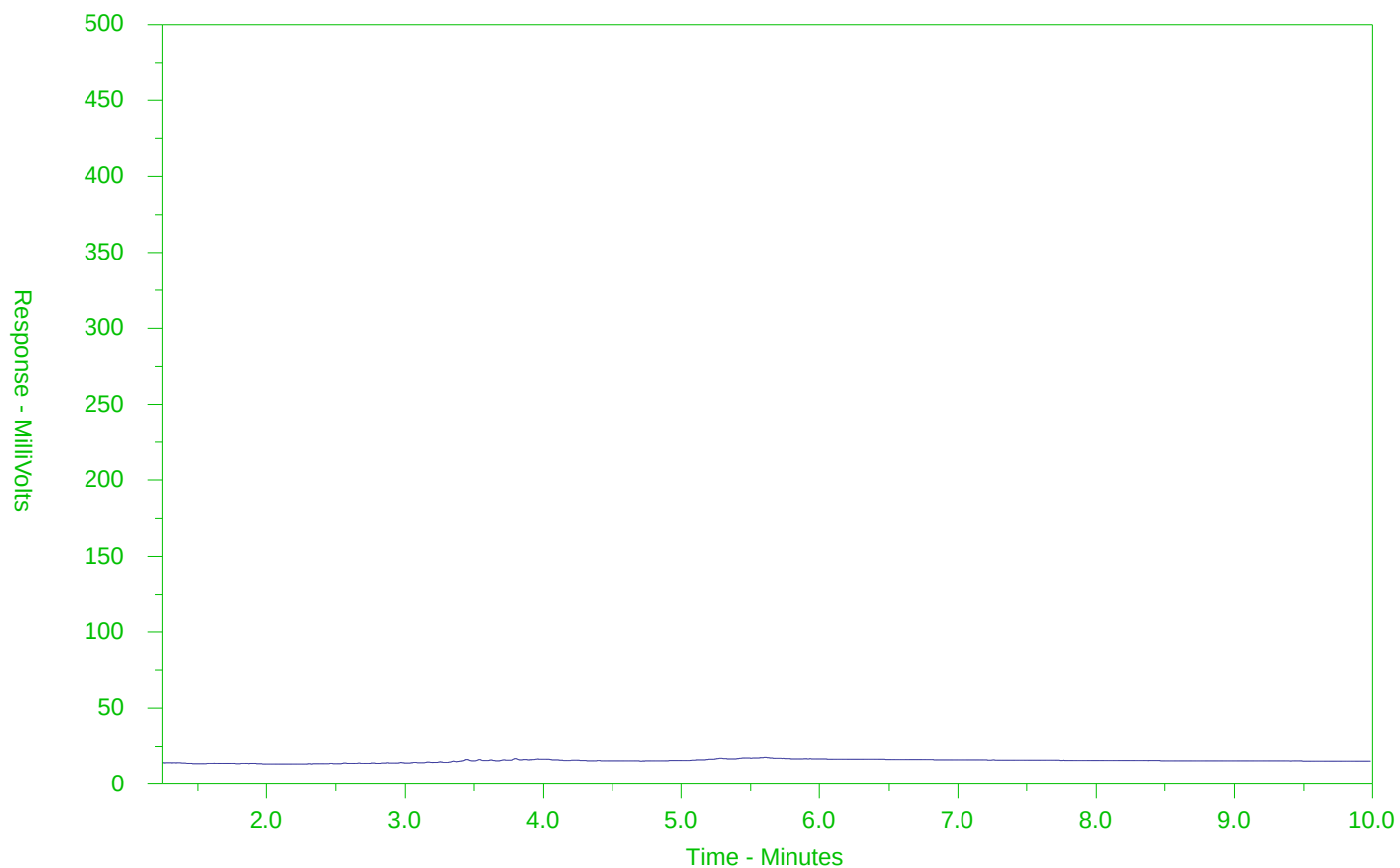
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2655585-2
Client Sample ID: BH104 SS1



← 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.

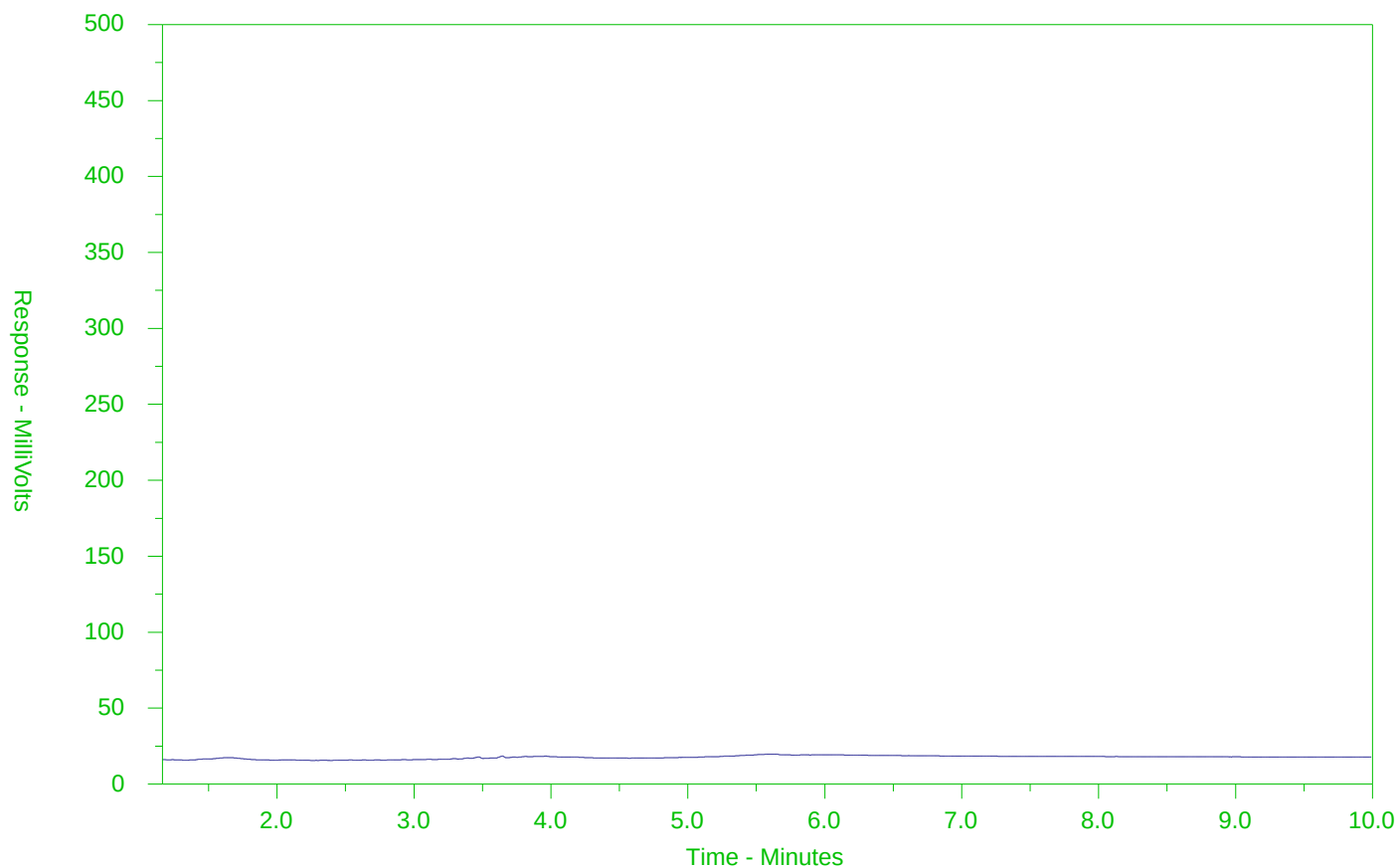
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2655585-3
Client Sample ID: BH108 SS1



← 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.

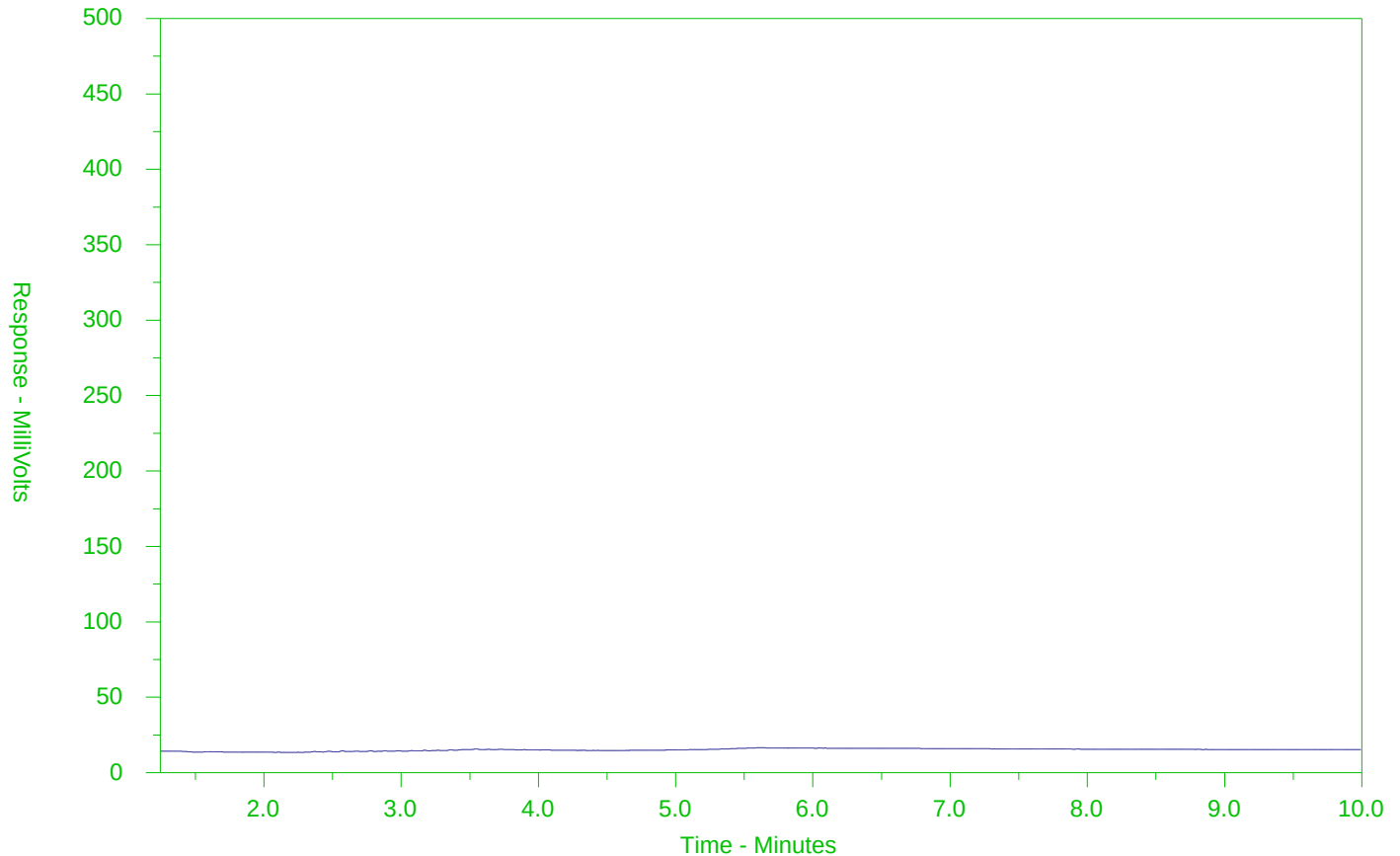
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2655585-4
Client Sample ID: BH109 SS3



← 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.

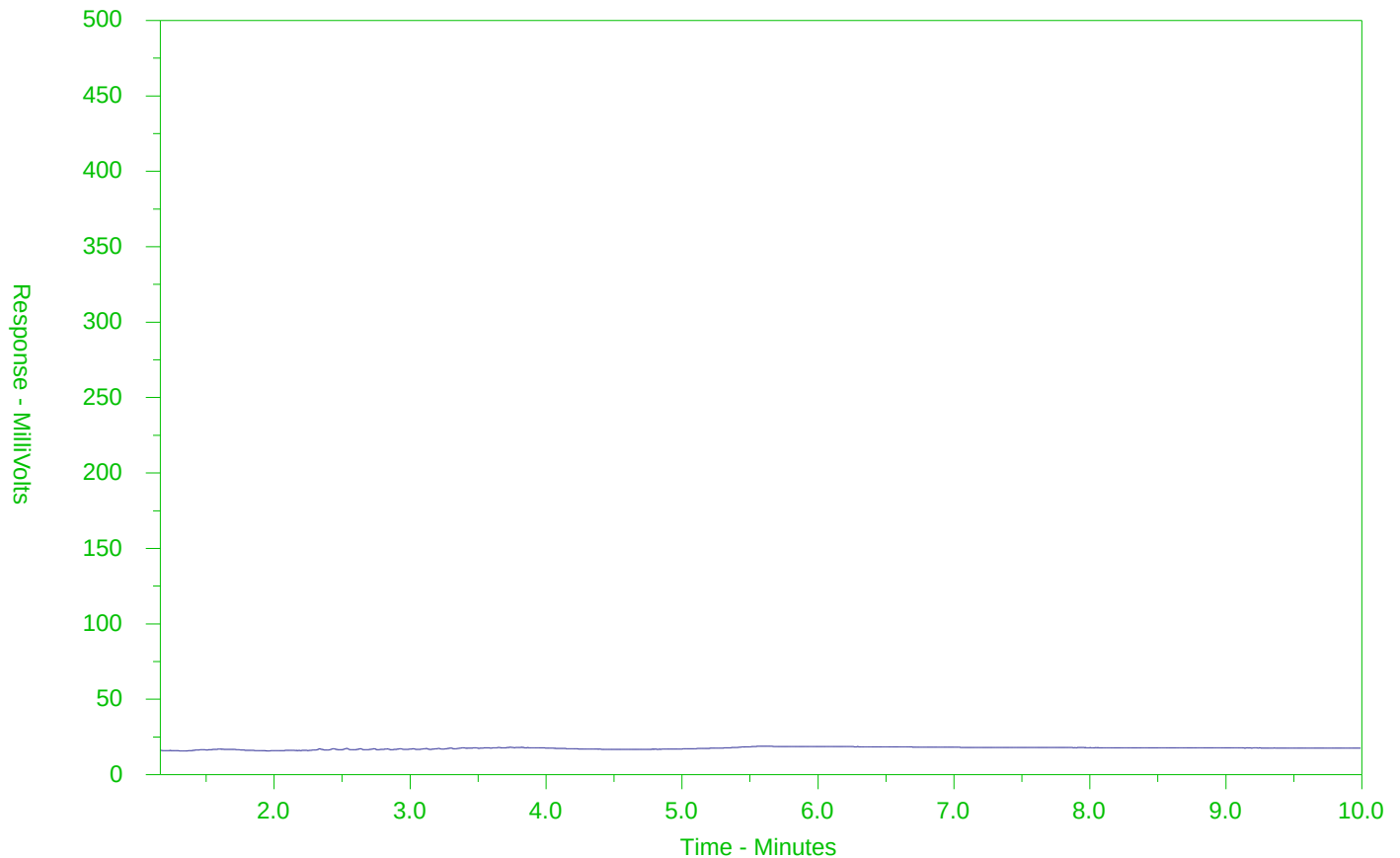
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2655585-5
Client Sample ID: BH117 SS2



← 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

Canada Toll Free: 1 800 668 9878

www.alsglobal.com



L2655585-COFC

COC Number: 14 -

F411

Page 1 of 1

Report To		Report Format / Dist		ash Turnaround Time (TAT) is not available for all tests													
Company: G2S Environmental		Select Report Format: ☒ PDF ☒ EXCEL ☒ EDD (DIGITAL)		R ☒ Regular (Standard TAT if received by 3 pm - business days)													
Contact: Dana Haslett		Quality Control (QC) Report with Report ☒ Yes ☐ No		Priority (2-4 bus. days if received by 3pm) 50% surcharge - contact ALS to confirm TAT													
Address: 4361 Harvester Road Burlington, ON		☒ Criteria on Report - provide details below if box checked		E ☐ Emergency (1-2 bus. days if received by 3pm) 100% surcharge - contact ALS to confirm TAT													
Phone: 905-331-3735		Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX		E2 ☐ Same day or weekend emergency - contact ALS to confirm TAT and surcharge													
		Email 1 or Fax danah@g2sconsulting.com		Specify Date Required for E2,E or P:													
		Email 2															
Invoice To		Invoice Distribution		Analysis Request													
Same as Report To ☒ Yes ☐ No		Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX		Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below													
Copy of Invoice with Report ☒ Yes ☐ No		Email 1 or Fax															
Contact:		Email 2															
Project Information		Oil and Gas Required Fields (client use)		Top Metals & Inorganics PAHs PHCs + BTEX VOCs Number of Containers													
ALS Quote #: Standing Offer		Approver ID:												Cost Center:			
Job #: G2S21366		GL Account:												Routing Code:			
PO / AFE: Hurontario/Poplar		Activity Code:															
LSD:		Location:															
ALS Lab Work Order # (lab use only)		ALS Contact: Mathy M		Sampler: DB													
ALS Sample # (lab use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type													
	BH102 SS2	21-Oct	am	Soil	☒	☒	☒								4		
	BH104 SS1	22-Oct	am	soil	☒	☒	☒								4		
	BH108 SS1	21-Oct	pm	soil	☒	☒	☒								4		
	BH109 SS3	21-Oct	am	soil	☒	☒	☒	☒							4		
	BH117 SS2	22-Oct	am	soil	☒	☒	☒								4		
Drinking Water (DW) Samples¹ (client use)		Special Instructions / Specify Criteria to add on report (client Use)				SAMPLE CONDITION AS RECEIVED (lab use only)											
Are samples taken from a Regulated DW System? ☐ Yes ☐ No		Table 2 SCS ICC Use sample dates from COC <i>Limited sample for all samples</i>				Frozen ☐ SIF Observations Yes ☐ No ☒											
Are samples for human drinking water use? ☐ Yes ☐ No						Ice packs Yes ☐ No ☐ Custody seal intact Yes ☐ No ☐											
						Cooling Initiated ☒											
						INITIAL COOLER TEMPERATURES °C 7.0°C			FINAL COOLER TEMPERATURES °C 9.1								
SHIPMENT RELEASE (client use)		INITIAL SHIPMENT RECEPTION (lab use only)				FINAL SHIPMENT RECEPTION (lab use only)											
Released by: <i>[Signature]</i>		Date: Oct 25 / 21		Time: 5:20pm		Received by: <i>[Signature]</i>		Date: 25-Oct-21		Time: 17:15		Received by: <i>[Signature]</i>		Date: 8/28/21		Time: 17:00	

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

YELLOW - CLIENT COPY

HA-FIA-0328e v09 From:04 January 2014

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.



G2S ENVIRONMENTAL CONSULTING, INC.
ATTN: DANA HASLETT
4361 Harvester Road
Unit 12
BURLINGTON ON L7L 5M4

Date Received: 06-OCT-21
Report Date: 12-NOV-21 08:54 (MT)
Version: FINAL REV. 2

Client Phone: 905-331-3735

Certificate of Analysis

Lab Work Order #: L2648566
Project P.O. #: HURONTARIO/POPLAR
Job Reference: G2S21366
C of C Numbers:
Legal Site Desc:

Mathy Mahadera
Account Manager

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

ADDRESS: 95 West Beaver Creek Road, Unit 1, Richmond Hill, ON L4B 1H2 Canada | Phone: +1 905 881 9887 | Fax: +1 905 881 8062
ALS CANADA LTD Part of the ALS Group An ALS Limited Company



ANALYTICAL REPORT

Summary of Guideline Exceedances

Guideline		Client ID	Grouping	Analyte	Result	Guideline Limit	Unit						
ALS ID													
Ontario Regulation 153/04 - April 15, 2011 Standards - T2-Soil-Ind/Com/Commu Property Use (Fine)													
(No parameter exceedances)													
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use													
L2648566-1	BH105 SS1		Volatile Organic Compounds	Xylenes (Total)	0.072	0.05	ug/g						



Environmental

ANALYTICAL REPORT

Physical Tests - SOIL

Analyte	Unit	Guide Limits					
		Sample Date		Sample ID		Lab ID	
Conductivity	mS/cm	1.4	0.7	0.233	0.221	0.154	0.395
% Moisture	%	-	-	17.7	16.7	17.2	22.5
pH	pH units	-	-	7.50	7.74	7.72	7.65

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



L2648566 CONT'D....

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12-NOV-21 08:54 (MT)

Cyanides - SOIL

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Saturated Paste Extractables - SOIL

Analyte	Unit	Guide Limits			
		#1	#2	Lab ID	
				Sample Date	
				Sample ID	
SAR	SAR	12	5	1.25	0.39
Calcium (Ca)	mg/L	-	-	23.3	23.7
Magnesium (Mg)	mg/L	-	-	2.97	6.57
Sodium (Na)	mg/L	-	-	24.2	8.22

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



Environmental

ANALYTICAL REPORT

Metals - SOIL

Analyte	Unit	Guide Limits		Lab ID			
		#1	#2	Sample Date		Sample ID	
				L2648566-1	L2648566-2	L2648566-3	L2648566-4
				01-OCT-21	01-OCT-21	30-SEP-21	30-SEP-21
				BH105 SS1	BH110 SS4	BH112 SS4	BH122 SS5
Antimony (Sb)	ug/g	50	1.3	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/g	18	18	6.0	4.6	3.9	3.2
Barium (Ba)	ug/g	670	220	81.6	60.9	54.3	45.4
Beryllium (Be)	ug/g	10	2.5	0.81	0.52	0.54	<0.50
Boron (B)	ug/g	120	36	16.5	13.9	16.5	14.1
Boron (B), Hot Water Ext.	ug/g	2	1.5	0.33	0.23	0.22	0.47
Cadmium (Cd)	ug/g	1.9	1.2	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	160	70	29.4	20.4	20.5	18.3
Cobalt (Co)	ug/g	100	22	12.4	9.8	9.2	8.5
Copper (Cu)	ug/g	300	92	22.3	17.6	17.5	18.7
Lead (Pb)	ug/g	120	120	8.1	6.1	5.8	5.8
Mercury (Hg)	ug/g	20	0.27	0.0191	0.0104	0.0070	0.0075
Molybdenum (Mo)	ug/g	40	2	<1.0	<1.0	<1.0	<1.0
Nickel (Ni)	ug/g	340	82	28.2	20.9	20.0	18.7
Selenium (Se)	ug/g	5.5	1.5	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	50	0.5	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	3.3	1	<0.50	<0.50	<0.50	<0.50
Uranium (U)	ug/g	33	2.5	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	86	42.5	28.8	29.7	25.8
Zinc (Zn)	ug/g	340	290	52.0	39.6	39.1	35.9

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

ANALYTICAL REPORT

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2648566-1	L2648566-2	L2648566-3	L2648566-4
		#1	#2	Sample Date	01-OCT-21	01-OCT-21	30-SEP-21	30-SEP-21
				Sample ID	BH105 SS1	BH110 SS4	BH112 SS4	BH122 SS5
Acetone	ug/g	28	0.5			<0.50	<0.50	<0.50
Benzene	ug/g	0.4	0.02	<0.0068		<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	1.9	0.05			<0.050	<0.050	<0.050
Bromoform	ug/g	1.7	0.05			<0.050	<0.050	<0.050
Bromomethane	ug/g	0.05	0.05			<0.050	<0.050	<0.050
Carbon tetrachloride	ug/g	0.71	0.05			<0.050	<0.050	<0.050
Chlorobenzene	ug/g	2.7	0.05			<0.050	<0.050	<0.050
Dibromochloromethane	ug/g	2.9	0.05			<0.050	<0.050	<0.050
Chloroform	ug/g	0.18	0.05			<0.050	<0.050	<0.050
1,2-Dibromoethane	ug/g	0.05	0.05			<0.050	<0.050	<0.050
1,2-Dichlorobenzene	ug/g	1.7	0.05			<0.050	<0.050	<0.050
1,3-Dichlorobenzene	ug/g	12	0.05			<0.050	<0.050	<0.050
1,4-Dichlorobenzene	ug/g	0.57	0.05			<0.050	<0.050	<0.050
Dichlorodifluoromethane	ug/g	25	0.05			<0.050	<0.050	<0.050
1,1-Dichloroethane	ug/g	0.6	0.05			<0.050	<0.050	<0.050
1,2-Dichloroethane	ug/g	0.05	0.05			<0.050	<0.050	<0.050
1,1-Dichloroethylene	ug/g	0.48	0.05			<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	ug/g	2.5	0.05			<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	ug/g	2.5	0.05			<0.050	<0.050	<0.050
Methylene Chloride	ug/g	2	0.05			<0.050	<0.050	<0.050
1,2-Dichloropropane	ug/g	0.68	0.05			<0.050	<0.050	<0.050
cis-1,3-Dichloropropene	ug/g	-	-			<0.030	<0.030	<0.030
trans-1,3-Dichloropropene	ug/g	-	-			<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	ug/g	0.081	0.05			<0.042	<0.042	<0.042
Ethylbenzene	ug/g	1.6	0.05	<0.018		<0.018	<0.018	<0.018
n-Hexane	ug/g	88	0.05			<0.050	<0.050	<0.050
Methyl Ethyl Ketone	ug/g	88	0.5			<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g	210	0.5			<0.50	<0.50	<0.50
MTBE	ug/g	2.3	0.05			<0.050	<0.050	<0.050
Styrene	ug/g	43	0.05			<0.050	<0.050	<0.050

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use



Environmental

ANALYTICAL REPORT

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2648566-1	L2648566-2	L2648566-3	L2648566-4
		#1	#2	Sample Date	01-OCT-21	01-OCT-21	30-SEP-21	30-SEP-21
				Sample ID	BH105 SS1	BH110 SS4	BH112 SS4	BH122 SS5
1,1,1,2-Tetrachloroethane	ug/g	0.11	0.05			<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	ug/g	0.094	0.05			<0.050	<0.050	<0.050
Tetrachloroethylene	ug/g	2.5	0.05			<0.050	<0.050	<0.050
Toluene	ug/g	9	0.2	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	12	0.05		<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	ug/g	0.11	0.05		<0.050	<0.050	<0.050	<0.050
Trichloroethylene	ug/g	0.61	0.05		<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	ug/g	5.8	0.25		<0.050	<0.050	<0.050	<0.050
Vinyl chloride	ug/g	0.25	0.02		<0.020	<0.020	<0.020	<0.020
o-Xylene	ug/g	-	-	0.072	<0.020	<0.020	<0.020	<0.020
m+p-Xylenes	ug/g	-	-	<0.030	<0.030	<0.030	<0.030	<0.030
Xylenes (Total)	ug/g	30	0.05	0.072	<0.050	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-	99.5	80.4	81.8	81.8	81.8
Surrogate: 1,4-Difluorobenzene	%	-	-	96.6	86.3	88.5	88.0	88.0

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Hydrocarbons - SOIL

Analyte	Unit	Guide Limits					
		#1	#2	Lab ID			
				Sample Date			
				Sample ID			
				L2648566-1	L2648566-2	L2648566-3	L2648566-4
				01-OCT-21	01-OCT-21	30-SEP-21	30-SEP-21
				BH105 SS1	BH110 SS4	BH112 SS4	BH122 SS5
F1 (C6-C10)	ug/g	65	25	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	65	25	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	250	10	<10	<10	<10	<10
F2-Naphth	ug/g	-	-	<10		<10	
F3 (C16-C34)	ug/g	2500	240	<50	<50	<50	<50
F3-PAH	ug/g	-	-	<50		<50	
F4 (C34-C50)	ug/g	6600	120	<50	<50	<50	<50
Total Hydrocarbons (C6-C50)	ug/g	-	-	<72	<72	<72	<72
Chrom. to baseline at nC50		-	-	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	85.3	88.2	83.9	84.4
Surrogate: 3,4-Dichlorotoluene	%	-	-	89.0	96.6	90.4	84.7

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

 Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

 Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.



ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - SOIL

Analyte	Unit	Lab ID			
		Sample Date			
		Sample ID			
				L2648566-1	L2648566-3
				01-OCT-21	30-SEP-21
				BH105 SS1	BH112 SS4
Analyte	Unit	Guide Limits			
		#1	#2		
Acenaphthene	ug/g	29	0.072	<0.050	<0.050
Acenaphthylene	ug/g	0.17	0.093	<0.050	<0.050
Anthracene	ug/g	0.74	0.22	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	0.36	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	0.3	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.96	0.47	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	9.6	0.68	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.96	0.48	<0.050	<0.050
Chrysene	ug/g	9.6	2.8	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	0.1	<0.050	<0.050
Fluoranthene	ug/g	9.6	0.69	<0.050	<0.050
Fluorene	ug/g	69	0.19	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.95	0.23	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	42	0.59	<0.042	<0.042
1-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030
2-Methylnaphthalene	ug/g	42	0.59	<0.030	<0.030
Naphthalene	ug/g	28	0.09	<0.013	<0.013
Phenanthrene	ug/g	16	0.69	<0.046	<0.046
Pyrene	ug/g	96	1	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	92.0	91.0
Surrogate: d14-Terphenyl	%	-	-	101.6	99.3

Guide Limit #1: T2-Soil-Ind/Com/Commu Property Use (Fine)

Guide Limit #2: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

Detection Limit for result exceeds Guideline Limit. Assessment against Guideline Limit cannot be made.

Analytical result for this parameter exceeds Guide Limits listed. See Summary of Guideline Exceedances.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
B-HWS-R511-WT	Soil	Boron-HWE-O.Reg 153/04 (July 2011)	HW EXTR, EPA 6010B
A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
BTX-511-HS-WT	Soil	BTEX-O.Reg 153/04 (July 2011)	SW846 8260
BTX is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/MS. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
CN-WAD-R511-WT	Soil	Cyanide (WAD)-O.Reg 153/04 (July 2011)	MOE 3015/APHA 4500CN I-WAD
The sample is extracted with a strong base for 16 hours, and then filtered. The filtrate is then distilled where the cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex. 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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
CR-CR6-IC-WT	Soil	Hexavalent Chromium in Soil	SW846 3060A/7199
This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. 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).			
EC-WT	Soil	Conductivity (EC)	MOEE E3138
A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter. 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).			
F1-F4-511-CALC-WT	Soil	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC, Pub #1310, Dec 2001-S
Analytical methods used for analysis of CCME Petroleum Hydrocarbons have been validated and comply with the Reference Method for the CWS PHC. Hydrocarbon results are expressed on a dry weight basis. 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.			

Reference Information

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Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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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-511-WT	Soil	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
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Fraction F1 is determined by extracting a soil or sediment sample as received with methanol, then analyzing by headspace-GC/FID.

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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

F2-F4-511-WT	Soil	F2-F4-O.Reg 153/04 (July 2011)	CCME Tier 1
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Petroleum Hydrocarbons (F2-F4 fractions) are extracted from soil with 1:1 hexane:acetone using a rotary extractor. Extracts are treated with silica gel to remove polar organic interferences. F2, F3, & F4 are analyzed by GC-FID. F4G-sg is analyzed gravimetrically.

Notes:

1. F2 (C10-C16): Sum of all hydrocarbons that elute between nC10 and nC16.
2. F3 (C16-C34): Sum of all hydrocarbons that elute between nC16 and nC34.
3. F4 (C34-C50): Sum of all hydrocarbons that elute between nC34 and nC50.
4. F4G: Gravimetric Heavy Hydrocarbons
5. F4G-sg: Gravimetric Heavy Hydrocarbons (F4G) after silica gel treatment.
6. Where both F4 (C34-C50) and F4G-sg are reported for a sample, the larger of the two values is used for comparison against the relevant CCME guideline for F4.
7. F4G-sg cannot be added to the C6 to C50 hydrocarbon results to obtain an estimate of total extractable hydrocarbons.
8. This method is validated for use.
9. Data from analysis of validation and quality control samples is available upon request.
10. Reported results are expressed as milligrams per dry kilogram, unless otherwise indicated.

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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).

HG-200.2-CVAA-WT	Soil	Mercury in Soil by CVAAS	EPA 200.2/1631E (mod)
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Soil samples are digested with nitric and hydrochloric acids, followed by analysis 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).

MET-200.2-CCMS-WT	Soil	Metals in Soil by CRC ICPMS	EPA 200.2/6020B (mod)
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Soil/sediment is dried, disaggregated, and sieved (2 mm). For tests intended to support Ontario regulations, the <2mm fraction is ground to pass through a 0.355 mm sieve. Strong Acid Leachable Metals in the <2mm fraction are solubilized by heated digestion with nitric and hydrochloric acids. Instrumental analysis is by Collision / Reaction Cell ICPMS.

Limitations: This method is intended to liberate environmentally available metals. Silicate minerals are not solubilized. Some metals may be only partially recovered (matrix dependent), including Al, Ba, Be, Cr, S, Sr, Ti, Tl, V, W, and Zr. Elemental Sulfur may be poorly recovered by this method. Volatile forms of sulfur (e.g. sulfide, H₂S) may be excluded if lost during sampling, storage, or digestion.

Reference Information

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 Job Reference: G2S21366
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Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
METHYLNAPS-CALC-WT	Soil	ABN-Calculated Parameters	SW846 8270
MOISTURE-WT	Soil	% Moisture	CCME PHC in Soil - Tier 1 (mod)
PAH-511-WT	Soil	PAH-O.Reg 153/04 (July 2011)	SW846 3510/8270
A representative sub-sample of soil is fortified with deuterium-labelled surrogates and a mechanical shaking technique is used to extract the sample with a mixture of methanol and toluene. The extracts are concentrated and analyzed by GC/MS. Results for benzo(b) fluoranthene may include contributions from benzo(j)fluoranthene, if also present in the sample.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
PH-WT	Soil	pH	MOEE E3137A
A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.			
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).			
SAR-R511-WT	Soil	SAR-O.Reg 153/04 (July 2011)	SW846 6010C
A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Soil	VOC-O.Reg 153/04 (July 2011)	SW846 8260 (511)
Soil and sediment samples are extracted in methanol and analyzed by headspace-GC/MS.			
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 and as of November 30, 2020), unless a subset of the Analytical Test Group (ATG) has been requested (the Protocol states that all analytes in an ATG must be reported).			
XYLENES-SUM-CALC-WT	Soil	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.			
Chain of Custody Numbers:			
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		

Reference Information

L2648566 CONT'D....
Job Reference: G2S21366
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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 ww - milligrams per kilogram based on wet weight of sample

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

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

< - Less than.

D.L. - The reporting limit.

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

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.

Application of guidelines is provided "as is" without warranty of any kind, either expressed or implied, including, but not limited to, fitness for a particular purpose, or non-infringement. ALS assumes no responsibility for errors or omissions in the information. Guideline limits are not adjusted for the hardness, pH or temperature of the sample (the most conservative values are used). Measurement uncertainty is not applied to test results prior to comparison with specified criteria values.



Quality Control Report

Workorder: L2648566

Report Date: 12-NOV-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT		Soil						
Batch	R5615812							
WG3635407-4	DUP	L2648582-2						
Boron (B), Hot Water Ext.		<0.10	<0.10	RPD-NA	ug/g	N/A	30	12-OCT-21
WG3635407-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			98.5		%		70-130	12-OCT-21
WG3635407-3	LCS							
Boron (B), Hot Water Ext.			106.0		%		70-130	12-OCT-21
WG3635407-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	12-OCT-21
Batch	R5615829							
WG3634874-4	DUP	L2649248-5						
Boron (B), Hot Water Ext.		0.23	0.23		ug/g	3.0	30	12-OCT-21
WG3634874-2	IRM	WT SAR4						
Boron (B), Hot Water Ext.			118.1		%		70-130	12-OCT-21
WG3634874-3	LCS							
Boron (B), Hot Water Ext.			109.0		%		70-130	12-OCT-21
WG3634874-1	MB							
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	12-OCT-21
BTX-511-HS-WT		Soil						
Batch	R5615587							
WG3633976-4	DUP	WG3633976-3						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	12-OCT-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	12-OCT-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-OCT-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	12-OCT-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	12-OCT-21
WG3633976-2	LCS							
Benzene			111.8		%		70-130	12-OCT-21
Ethylbenzene			98.8		%		70-130	12-OCT-21
m+p-Xylenes			99.3		%		70-130	12-OCT-21
o-Xylene			99.4		%		70-130	12-OCT-21
Toluene			105.0		%		70-130	12-OCT-21
WG3633976-1	MB							
Benzene			<0.0068		ug/g		0.0068	12-OCT-21
Ethylbenzene			<0.018		ug/g		0.018	12-OCT-21
m+p-Xylenes			<0.030		ug/g		0.03	12-OCT-21
o-Xylene			<0.020		ug/g		0.02	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT		Soil						
Batch	R5615587							
WG3633976-1 MB								
Toluene			<0.080		ug/g		0.08	12-OCT-21
Surrogate: 1,4-Difluorobenzene			114.6		%		50-140	12-OCT-21
Surrogate: 4-Bromofluorobenzene			109.7		%		50-140	12-OCT-21
WG3633976-5 MS		WG3633976-3						
Benzene			116.5		%		60-140	12-OCT-21
Ethylbenzene			102.6		%		60-140	12-OCT-21
m+p-Xylenes			103.9		%		60-140	12-OCT-21
o-Xylene			103.0		%		60-140	12-OCT-21
Toluene			109.0		%		60-140	12-OCT-21
CN-WAD-R511-WT		Soil						
Batch	R5617330							
WG3635715-3 DUP		L2648720-3						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	ug/g	N/A	35	13-OCT-21
WG3635715-2 LCS								
Cyanide, Weak Acid Diss			89.6		%		80-120	13-OCT-21
WG3635715-1 MB								
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	13-OCT-21
WG3635715-4 MS		L2648720-3						
Cyanide, Weak Acid Diss			86.8		%		70-130	14-OCT-21
CR-CR6-IC-WT		Soil						
Batch	R5617419							
WG3635643-4 CRM		WT-SQC012						
Chromium, Hexavalent			81.0		%		70-130	14-OCT-21
WG3635643-3 DUP		L2648566-3						
Chromium, Hexavalent		<0.20	<0.20	RPD-NA	ug/g	N/A	35	14-OCT-21
WG3635643-2 LCS								
Chromium, Hexavalent			96.5		%		80-120	14-OCT-21
WG3635643-1 MB								
Chromium, Hexavalent			<0.20		ug/g		0.2	14-OCT-21
EC-WT		Soil						
Batch	R5616622							
WG3635410-4 DUP		WG3635410-3						
Conductivity		0.512	0.498		mS/cm	2.8	20	13-OCT-21
WG3635410-2 IRM		WT SAR4						
Conductivity			107.9		%		70-130	13-OCT-21
WG3636661-1 LCS								



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
EC-WT		Soil						
Batch	R5616622							
WG3636661-1	LCS							
Conductivity			96.3		%		90-110	13-OCT-21
WG3635410-1	MB							
Conductivity			<0.0040		mS/cm		0.004	13-OCT-21
Batch	R5617278							
WG3634889-4	DUP	WG3634889-3						
Conductivity		0.0787	0.0816		mS/cm	3.6	20	14-OCT-21
WG3634889-2	IRM	WT SAR4						
Conductivity			108.3		%		70-130	14-OCT-21
WG3637564-1	LCS							
Conductivity			97.2		%		90-110	14-OCT-21
WG3634889-1	MB							
Conductivity			<0.0040		mS/cm		0.004	14-OCT-21
F1-HS-511-WT		Soil						
Batch	R5615587							
WG3633976-4	DUP	WG3633976-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	12-OCT-21
WG3633976-2	LCS							
F1 (C6-C10)			92.7		%		80-120	12-OCT-21
WG3633976-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	12-OCT-21
Surrogate: 3,4-Dichlorotoluene			100.6		%		60-140	12-OCT-21
WG3633976-5	MS	WG3633976-3						
F1 (C6-C10)			93.6		%		60-140	12-OCT-21
Batch	R5615811							
WG3634824-4	DUP	WG3634824-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	12-OCT-21
WG3634824-2	LCS							
F1 (C6-C10)			100.5		%		80-120	12-OCT-21
WG3634824-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	12-OCT-21
Surrogate: 3,4-Dichlorotoluene			97.9		%		60-140	12-OCT-21
WG3634824-5	MS	WG3634824-3						
F1 (C6-C10)			122.0		%		60-140	12-OCT-21



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4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-200.2-CVAA-WT		Soil						
Batch	R5615382							
WG3634832-8	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	11-OCT-21
Batch	R5615544							
WG3635380-2	CRM	WT-SS-2						
Mercury (Hg)			97.0		%		70-130	12-OCT-21
WG3635380-6	DUP	WG3635380-5						
Mercury (Hg)		0.0104	0.0101		ug/g	3.2	40	12-OCT-21
WG3635380-3	LCS							
Mercury (Hg)			104.0		%		80-120	12-OCT-21
WG3635380-1	MB							
Mercury (Hg)			<0.0050		mg/kg		0.005	12-OCT-21
MET-200.2-CCMS-WT		Soil						
Batch	R5616337							
WG3634832-9	CRM	WT-SS-2						
Antimony (Sb)			91.2		%		70-130	12-OCT-21
Arsenic (As)			100.5		%		70-130	12-OCT-21
Barium (Ba)			109.4		%		70-130	12-OCT-21
Beryllium (Be)			93.9		%		70-130	12-OCT-21
Boron (B)			7.8		mg/kg		3.5-13.5	12-OCT-21
Cadmium (Cd)			94.8		%		70-130	12-OCT-21
Chromium (Cr)			101.0		%		70-130	12-OCT-21
Cobalt (Co)			97.8		%		70-130	12-OCT-21
Copper (Cu)			96.9		%		70-130	12-OCT-21
Lead (Pb)			90.0		%		70-130	12-OCT-21
Molybdenum (Mo)			93.3		%		70-130	12-OCT-21
Nickel (Ni)			97.6		%		70-130	12-OCT-21
Selenium (Se)			0.15		mg/kg		0-0.34	12-OCT-21
Silver (Ag)			86.0		%		70-130	12-OCT-21
Thallium (Tl)			0.072		mg/kg		0.029-0.129	12-OCT-21
Uranium (U)			93.7		%		70-130	12-OCT-21
Vanadium (V)			97.5		%		70-130	12-OCT-21
Zinc (Zn)			92.9		%		70-130	12-OCT-21
WG3634832-13	DUP	WG3634832-12						
Antimony (Sb)		0.37	0.43		ug/g	15	30	12-OCT-21
Arsenic (As)		7.80	7.82		ug/g	0.3	30	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5616337							
WG3634832-13	DUP	WG3634832-12						
Barium (Ba)		89.3	92.2		ug/g	3.2	40	12-OCT-21
Beryllium (Be)		0.55	0.59		ug/g	7.5	30	12-OCT-21
Boron (B)		11.0	12.1		ug/g	9.6	30	12-OCT-21
Cadmium (Cd)		0.234	0.244		ug/g	4.0	30	12-OCT-21
Chromium (Cr)		21.5	21.9		ug/g	1.7	30	12-OCT-21
Cobalt (Co)		9.23	9.50		ug/g	2.8	30	12-OCT-21
Copper (Cu)		17.3	17.5		ug/g	1.1	30	12-OCT-21
Lead (Pb)		10.1	11.0		ug/g	8.6	40	12-OCT-21
Molybdenum (Mo)		2.73	2.98		ug/g	8.6	40	12-OCT-21
Nickel (Ni)		24.2	24.4		ug/g	0.5	30	12-OCT-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	12-OCT-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	12-OCT-21
Thallium (Tl)		0.223	0.237		ug/g	5.9	30	12-OCT-21
Uranium (U)		1.08	1.23		ug/g	14	30	12-OCT-21
Vanadium (V)		31.6	31.9		ug/g	1.0	30	12-OCT-21
Zinc (Zn)		49.6	50.1		ug/g	1.0	30	12-OCT-21
WG3634832-11	LCS							
Antimony (Sb)			90.7		%		80-120	12-OCT-21
Arsenic (As)			100.2		%		80-120	12-OCT-21
Barium (Ba)			99.8		%		80-120	12-OCT-21
Beryllium (Be)			89.9		%		80-120	12-OCT-21
Boron (B)			85.2		%		80-120	12-OCT-21
Cadmium (Cd)			92.8		%		80-120	12-OCT-21
Chromium (Cr)			96.4		%		80-120	12-OCT-21
Cobalt (Co)			97.1		%		80-120	12-OCT-21
Copper (Cu)			94.6		%		80-120	12-OCT-21
Lead (Pb)			88.3		%		80-120	12-OCT-21
Molybdenum (Mo)			92.6		%		80-120	12-OCT-21
Nickel (Ni)			95.2		%		80-120	12-OCT-21
Selenium (Se)			95.6		%		80-120	12-OCT-21
Silver (Ag)			81.7		%		80-120	12-OCT-21
Thallium (Tl)			87.7		%		80-120	12-OCT-21
Uranium (U)			90.3		%		80-120	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT								
Soil								
Batch R5616337								
WG3634832-11 LCS								
Vanadium (V)			99.3		%		80-120	12-OCT-21
Zinc (Zn)			91.6		%		80-120	12-OCT-21
WG3634832-8 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	12-OCT-21
Arsenic (As)			<0.10		mg/kg		0.1	12-OCT-21
Barium (Ba)			<0.50		mg/kg		0.5	12-OCT-21
Beryllium (Be)			<0.10		mg/kg		0.1	12-OCT-21
Boron (B)			<5.0		mg/kg		5	12-OCT-21
Cadmium (Cd)			<0.020		mg/kg		0.02	12-OCT-21
Chromium (Cr)			<0.50		mg/kg		0.5	12-OCT-21
Cobalt (Co)			<0.10		mg/kg		0.1	12-OCT-21
Copper (Cu)			<0.50		mg/kg		0.5	12-OCT-21
Lead (Pb)			<0.50		mg/kg		0.5	12-OCT-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	12-OCT-21
Nickel (Ni)			<0.50		mg/kg		0.5	12-OCT-21
Selenium (Se)			<0.20		mg/kg		0.2	12-OCT-21
Silver (Ag)			<0.10		mg/kg		0.1	12-OCT-21
Thallium (Tl)			<0.050		mg/kg		0.05	12-OCT-21
Uranium (U)			<0.050		mg/kg		0.05	12-OCT-21
Vanadium (V)			<0.20		mg/kg		0.2	12-OCT-21
Zinc (Zn)			<2.0		mg/kg		2	12-OCT-21
Batch R5616343								
WG3635380-2 CRM								
WT-SS-2								
Antimony (Sb)			81.8		%		70-130	12-OCT-21
Arsenic (As)			100.7		%		70-130	12-OCT-21
Barium (Ba)			110.8		%		70-130	12-OCT-21
Beryllium (Be)			88.4		%		70-130	12-OCT-21
Boron (B)			7.2		mg/kg		3.5-13.5	12-OCT-21
Cadmium (Cd)			92.1		%		70-130	12-OCT-21
Chromium (Cr)			98.3		%		70-130	12-OCT-21
Cobalt (Co)			97.3		%		70-130	12-OCT-21
Copper (Cu)			97.3		%		70-130	12-OCT-21
Lead (Pb)			87.7		%		70-130	12-OCT-21
Molybdenum (Mo)			93.0		%		70-130	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5616343							
WG3635380-2	CRM	WT-SS-2						
Nickel (Ni)			99.9		%		70-130	12-OCT-21
Selenium (Se)			0.13		mg/kg		0-0.34	12-OCT-21
Silver (Ag)			101.4		%		70-130	12-OCT-21
Thallium (Tl)			0.073		mg/kg		0.029-0.129	12-OCT-21
Uranium (U)			90.1		%		70-130	12-OCT-21
Vanadium (V)			98.2		%		70-130	12-OCT-21
Zinc (Zn)			94.6		%		70-130	12-OCT-21
WG3635380-6	DUP	WG3635380-5						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	12-OCT-21
Arsenic (As)		4.59	4.63		ug/g	1.0	30	12-OCT-21
Barium (Ba)		60.9	63.7		ug/g	4.4	40	12-OCT-21
Beryllium (Be)		0.52	0.50		ug/g	4.9	30	12-OCT-21
Boron (B)		13.9	13.5		ug/g	2.9	30	12-OCT-21
Cadmium (Cd)		0.052	0.048		ug/g	6.4	30	12-OCT-21
Chromium (Cr)		20.4	21.0		ug/g	2.9	30	12-OCT-21
Cobalt (Co)		9.84	10.1		ug/g	2.3	30	12-OCT-21
Copper (Cu)		17.6	18.1		ug/g	2.9	30	12-OCT-21
Lead (Pb)		6.05	5.90		ug/g	2.5	40	12-OCT-21
Molybdenum (Mo)		0.29	0.30		ug/g	3.6	40	12-OCT-21
Nickel (Ni)		20.9	21.4		ug/g	2.6	30	12-OCT-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	12-OCT-21
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	12-OCT-21
Thallium (Tl)		0.107	0.105		ug/g	1.6	30	12-OCT-21
Uranium (U)		0.519	0.501		ug/g	3.7	30	12-OCT-21
Vanadium (V)		28.8	29.3		ug/g	1.7	30	12-OCT-21
Zinc (Zn)		39.6	40.1		ug/g	1.2	30	12-OCT-21
WG3635380-4	LCS							
Antimony (Sb)			105.8		%		80-120	12-OCT-21
Arsenic (As)			102.6		%		80-120	12-OCT-21
Barium (Ba)			104.6		%		80-120	12-OCT-21
Beryllium (Be)			100.6		%		80-120	12-OCT-21
Boron (B)			97.5		%		80-120	12-OCT-21
Cadmium (Cd)			99.2		%		80-120	12-OCT-21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R5616343							
WG3635380-4		LCS						
Chromium (Cr)			99.3		%		80-120	12-OCT-21
Cobalt (Co)			99.3		%		80-120	12-OCT-21
Copper (Cu)			97.4		%		80-120	12-OCT-21
Lead (Pb)			102.8		%		80-120	12-OCT-21
Molybdenum (Mo)			110.3		%		80-120	12-OCT-21
Nickel (Ni)			98.5		%		80-120	12-OCT-21
Selenium (Se)			98.6		%		80-120	12-OCT-21
Silver (Ag)			96.0		%		80-120	12-OCT-21
Thallium (Tl)			101.8		%		80-120	12-OCT-21
Uranium (U)			100.9		%		80-120	12-OCT-21
Vanadium (V)			102.2		%		80-120	12-OCT-21
Zinc (Zn)			94.2		%		80-120	12-OCT-21
WG3635380-1		MB						
Antimony (Sb)			<0.10		mg/kg		0.1	12-OCT-21
Arsenic (As)			<0.10		mg/kg		0.1	12-OCT-21
Barium (Ba)			<0.50		mg/kg		0.5	12-OCT-21
Beryllium (Be)			<0.10		mg/kg		0.1	12-OCT-21
Boron (B)			<5.0		mg/kg		5	12-OCT-21
Cadmium (Cd)			<0.020		mg/kg		0.02	12-OCT-21
Chromium (Cr)			<0.50		mg/kg		0.5	12-OCT-21
Cobalt (Co)			<0.10		mg/kg		0.1	12-OCT-21
Copper (Cu)			<0.50		mg/kg		0.5	12-OCT-21
Lead (Pb)			<0.50		mg/kg		0.5	12-OCT-21
Molybdenum (Mo)			<0.10		mg/kg		0.1	12-OCT-21
Nickel (Ni)			<0.50		mg/kg		0.5	12-OCT-21
Selenium (Se)			<0.20		mg/kg		0.2	12-OCT-21
Silver (Ag)			<0.10		mg/kg		0.1	12-OCT-21
Thallium (Tl)			<0.050		mg/kg		0.05	12-OCT-21
Uranium (U)			<0.050		mg/kg		0.05	12-OCT-21
Vanadium (V)			<0.20		mg/kg		0.2	12-OCT-21
Zinc (Zn)			<2.0		mg/kg		2	12-OCT-21
MOISTURE-WT		Soil						



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MOISTURE-WT		Soil						
Batch	R5614778							
WG3634294-3	DUP	L2648566-2						
% Moisture		16.7	16.6		%	0.7	20	09-OCT-21
WG3634294-2	LCS							
% Moisture			100.1		%		90-110	09-OCT-21
WG3634294-1	MB							
% Moisture			<0.25		%		0.25	09-OCT-21
PAH-511-WT		Soil						
Batch	R5617366							
WG3636070-3	DUP	WG3636070-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	14-OCT-21
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	14-OCT-21
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Fluoranthene		<0.050	0.051	RPD-NA	ug/g	N/A	40	14-OCT-21
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	14-OCT-21
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	14-OCT-21
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	14-OCT-21
WG3636070-2	LCS							
1-Methylnaphthalene			104.8		%		50-140	14-OCT-21
2-Methylnaphthalene			101.9		%		50-140	14-OCT-21
Acenaphthene			101.9		%		50-140	14-OCT-21
Acenaphthylene			106.4		%		50-140	14-OCT-21
Anthracene			96.9		%		50-140	14-OCT-21
Benzo(a)anthracene			115.6		%		50-140	14-OCT-21
Benzo(a)pyrene			91.3		%		50-140	14-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R5617366							
WG3636070-2	LCS							
Benzo(b&j)fluoranthene			96.5		%		50-140	14-OCT-21
Benzo(g,h,i)perylene			95.2		%		50-140	14-OCT-21
Benzo(k)fluoranthene			92.0		%		50-140	14-OCT-21
Chrysene			106.9		%		50-140	14-OCT-21
Dibenz(a,h)anthracene			101.4		%		50-140	14-OCT-21
Fluoranthene			107.8		%		50-140	14-OCT-21
Fluorene			102.4		%		50-140	14-OCT-21
Indeno(1,2,3-cd)pyrene			104.6		%		50-140	14-OCT-21
Naphthalene			97.6		%		50-140	14-OCT-21
Phenanthrene			100.1		%		50-140	14-OCT-21
Pyrene			105.9		%		50-140	14-OCT-21
WG3636070-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	14-OCT-21
2-Methylnaphthalene			<0.030		ug/g		0.03	14-OCT-21
Acenaphthene			<0.050		ug/g		0.05	14-OCT-21
Acenaphthylene			<0.050		ug/g		0.05	14-OCT-21
Anthracene			<0.050		ug/g		0.05	14-OCT-21
Benzo(a)anthracene			<0.050		ug/g		0.05	14-OCT-21
Benzo(a)pyrene			<0.050		ug/g		0.05	14-OCT-21
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	14-OCT-21
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	14-OCT-21
Benzo(k)fluoranthene			<0.050		ug/g		0.05	14-OCT-21
Chrysene			<0.050		ug/g		0.05	14-OCT-21
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	14-OCT-21
Fluoranthene			<0.050		ug/g		0.05	14-OCT-21
Fluorene			<0.050		ug/g		0.05	14-OCT-21
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	14-OCT-21
Naphthalene			<0.013		ug/g		0.013	14-OCT-21
Phenanthrene			<0.046		ug/g		0.046	14-OCT-21
Pyrene			<0.050		ug/g		0.05	14-OCT-21
Surrogate: 2-Fluorobiphenyl			89.0		%		50-140	14-OCT-21
Surrogate: d14-Terphenyl			96.0		%		50-140	14-OCT-21
WG3636070-4	MS	WG3636070-5						
1-Methylnaphthalene			104.7		%		50-140	14-OCT-21

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R5617366							
WG3636070-4	MS	WG3636070-5						
2-Methylnaphthalene			102.1		%		50-140	14-OCT-21
Acenaphthene			102.5		%		50-140	14-OCT-21
Acenaphthylene			105.6		%		50-140	14-OCT-21
Anthracene			98.3		%		50-140	14-OCT-21
Benzo(a)anthracene			122.9		%		50-140	14-OCT-21
Benzo(a)pyrene			94.0		%		50-140	14-OCT-21
Benzo(b&j)fluoranthene			100.3		%		50-140	14-OCT-21
Benzo(g,h,i)perylene			95.9		%		50-140	14-OCT-21
Benzo(k)fluoranthene			93.8		%		50-140	14-OCT-21
Chrysene			108.3		%		50-140	14-OCT-21
Dibenz(a,h)anthracene			104.6		%		50-140	14-OCT-21
Fluoranthene			110.5		%		50-140	14-OCT-21
Fluorene			105.2		%		50-140	14-OCT-21
Indeno(1,2,3-cd)pyrene			112.9		%		50-140	14-OCT-21
Naphthalene			95.8		%		50-140	14-OCT-21
Phenanthrene			101.3		%		50-140	14-OCT-21
Pyrene			108.0		%		50-140	14-OCT-21
PH-WT		Soil						
Batch	R5617515							
WG3635476-1	DUP	L2648567-2						
pH		7.80	7.78	J	pH units	0.02	0.3	14-OCT-21
WG3637773-1	LCS							
pH			6.96		pH units		6.9-7.1	14-OCT-21
SAR-R511-WT		Soil						
Batch	R5615850							
WG3635410-4	DUP	WG3635410-3						
Calcium (Ca)		17.2	16.3		mg/L	5.4	30	12-OCT-21
Sodium (Na)		68.8	67.2		mg/L	2.4	30	12-OCT-21
Magnesium (Mg)		11.4	10.8		mg/L	5.4	30	12-OCT-21
WG3635410-2	IRM	WT SAR4						
Calcium (Ca)			108.2		%		70-130	12-OCT-21
Sodium (Na)			91.3		%		70-130	12-OCT-21
Magnesium (Mg)			106.0		%		70-130	12-OCT-21
WG3635410-5	LCS							



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SAR-R511-WT		Soil						
Batch	R5615850							
WG3635410-5	LCS							
Calcium (Ca)			104.0		%		80-120	12-OCT-21
Sodium (Na)			102.8		%		80-120	12-OCT-21
Magnesium (Mg)			102.6		%		80-120	12-OCT-21
WG3635410-1	MB							
Calcium (Ca)			<0.50		mg/L		0.5	12-OCT-21
Sodium (Na)			<0.50		mg/L		0.5	12-OCT-21
Magnesium (Mg)			<0.50		mg/L		0.5	12-OCT-21
Batch	R5615983							
WG3634889-4	DUP	WG3634889-3						
Calcium (Ca)		9.09	9.28		mg/L	2.1	30	12-OCT-21
Sodium (Na)		1.11	1.15		mg/L	3.5	30	12-OCT-21
Magnesium (Mg)		2.30	2.39		mg/L	3.8	30	12-OCT-21
WG3634889-2	IRM	WT SAR4						
Calcium (Ca)			104.7		%		70-130	12-OCT-21
Sodium (Na)			95.7		%		70-130	12-OCT-21
Magnesium (Mg)			109.4		%		70-130	12-OCT-21
WG3634889-5	LCS							
Calcium (Ca)			105.3		%		80-120	12-OCT-21
Sodium (Na)			103.6		%		80-120	12-OCT-21
Magnesium (Mg)			103.8		%		80-120	12-OCT-21
WG3634889-1	MB							
Calcium (Ca)			<0.50		mg/L		0.5	12-OCT-21
Sodium (Na)			<0.50		mg/L		0.5	12-OCT-21
Magnesium (Mg)			<0.50		mg/L		0.5	12-OCT-21
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-4	DUP	WG3634824-3						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-4 DUP		WG3634824-3						
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	12-OCT-21
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	12-OCT-21
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-OCT-21
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	12-OCT-21
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-OCT-21
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	12-OCT-21
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	12-OCT-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	12-OCT-21
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	12-OCT-21
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-OCT-21
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	12-OCT-21
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	12-OCT-21
Vinyl chloride		<0.020	<0.020		ug/g			12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-4	DUP	WG3634824-3						
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	12-OCT-21
WG3634824-2	LCS							
1,1,1,2-Tetrachloroethane			90.9		%		60-130	12-OCT-21
1,1,2,2-Tetrachloroethane			86.5		%		60-130	12-OCT-21
1,1,1-Trichloroethane			92.3		%		60-130	12-OCT-21
1,1,2-Trichloroethane			88.6		%		60-130	12-OCT-21
1,1-Dichloroethane			92.9		%		60-130	12-OCT-21
1,1-Dichloroethylene			83.3		%		60-130	12-OCT-21
1,2-Dibromoethane			86.9		%		70-130	12-OCT-21
1,2-Dichlorobenzene			90.1		%		70-130	12-OCT-21
1,2-Dichloroethane			90.2		%		60-130	12-OCT-21
1,2-Dichloropropane			87.4		%		70-130	12-OCT-21
1,3-Dichlorobenzene			91.5		%		70-130	12-OCT-21
1,4-Dichlorobenzene			93.1		%		70-130	12-OCT-21
Acetone			91.2		%		60-140	12-OCT-21
Benzene			90.6		%		70-130	12-OCT-21
Bromodichloromethane			99.8		%		50-140	12-OCT-21
Bromoform			85.0		%		70-130	12-OCT-21
Bromomethane			80.0		%		50-140	12-OCT-21
Carbon tetrachloride			86.3		%		70-130	12-OCT-21
Chlorobenzene			81.9		%		70-130	12-OCT-21
Chloroform			92.8		%		70-130	12-OCT-21
cis-1,2-Dichloroethylene			79.2		%		70-130	12-OCT-21
cis-1,3-Dichloropropene			94.7		%		70-130	12-OCT-21
Dibromochloromethane			93.0		%		60-130	12-OCT-21
Dichlorodifluoromethane			56.4		%		50-140	12-OCT-21
Ethylbenzene			82.5		%		70-130	12-OCT-21
n-Hexane			79.2		%		70-130	12-OCT-21
Methylene Chloride			95.5		%		70-130	12-OCT-21
MTBE			87.4		%		70-130	12-OCT-21
m+p-Xylenes			83.1		%		70-130	12-OCT-21
Methyl Ethyl Ketone			83.3		%		60-140	12-OCT-21
Methyl Isobutyl Ketone			74.3		%		60-140	12-OCT-21
o-Xylene			83.3		%		70-130	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-2	LCS							
Styrene			80.5		%		70-130	12-OCT-21
Tetrachloroethylene			88.9		%		60-130	12-OCT-21
Toluene			81.8		%		70-130	12-OCT-21
trans-1,2-Dichloroethylene			94.4		%		60-130	12-OCT-21
trans-1,3-Dichloropropene			89.6		%		70-130	12-OCT-21
Trichloroethylene			91.0		%		60-130	12-OCT-21
Trichlorofluoromethane			78.8		%		50-140	12-OCT-21
Vinyl chloride			61.7		%		60-140	12-OCT-21
WG3634824-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	12-OCT-21
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	12-OCT-21
1,1,1-Trichloroethane			<0.050		ug/g		0.05	12-OCT-21
1,1,2-Trichloroethane			<0.050		ug/g		0.05	12-OCT-21
1,1-Dichloroethane			<0.050		ug/g		0.05	12-OCT-21
1,1-Dichloroethylene			<0.050		ug/g		0.05	12-OCT-21
1,2-Dibromoethane			<0.050		ug/g		0.05	12-OCT-21
1,2-Dichlorobenzene			<0.050		ug/g		0.05	12-OCT-21
1,2-Dichloroethane			<0.050		ug/g		0.05	12-OCT-21
1,2-Dichloropropane			<0.050		ug/g		0.05	12-OCT-21
1,3-Dichlorobenzene			<0.050		ug/g		0.05	12-OCT-21
1,4-Dichlorobenzene			<0.050		ug/g		0.05	12-OCT-21
Acetone			<0.50		ug/g		0.5	12-OCT-21
Benzene			<0.0068		ug/g		0.0068	12-OCT-21
Bromodichloromethane			<0.050		ug/g		0.05	12-OCT-21
Bromoform			<0.050		ug/g		0.05	12-OCT-21
Bromomethane			<0.050		ug/g		0.05	12-OCT-21
Carbon tetrachloride			<0.050		ug/g		0.05	12-OCT-21
Chlorobenzene			<0.050		ug/g		0.05	12-OCT-21
Chloroform			<0.050		ug/g		0.05	12-OCT-21
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	12-OCT-21
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	12-OCT-21
Dibromochloromethane			<0.050		ug/g		0.05	12-OCT-21
Dichlorodifluoromethane			<0.050		ug/g		0.05	12-OCT-21
Ethylbenzene			<0.018		ug/g		0.018	12-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-1 MB								
n-Hexane			<0.050		ug/g		0.05	12-OCT-21
Methylene Chloride			<0.050		ug/g		0.05	12-OCT-21
MTBE			<0.050		ug/g		0.05	12-OCT-21
m+p-Xylenes			<0.030		ug/g		0.03	12-OCT-21
Methyl Ethyl Ketone			<0.50		ug/g		0.5	12-OCT-21
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	12-OCT-21
o-Xylene			<0.020		ug/g		0.02	12-OCT-21
Styrene			<0.050		ug/g		0.05	12-OCT-21
Tetrachloroethylene			<0.050		ug/g		0.05	12-OCT-21
Toluene			<0.080		ug/g		0.08	12-OCT-21
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	12-OCT-21
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	12-OCT-21
Trichloroethylene			<0.010		ug/g		0.01	12-OCT-21
Trichlorofluoromethane			<0.050		ug/g		0.05	12-OCT-21
Vinyl chloride			<0.020		ug/g		0.02	12-OCT-21
Surrogate: 1,4-Difluorobenzene			86.4		%		50-140	12-OCT-21
Surrogate: 4-Bromofluorobenzene			76.8		%		50-140	12-OCT-21
WG3634824-5 MS		WG3634824-3						
1,1,1,2-Tetrachloroethane			113.6		%		50-140	12-OCT-21
1,1,2,2-Tetrachloroethane			110.9		%		50-140	12-OCT-21
1,1,1-Trichloroethane			119.9		%		50-140	12-OCT-21
1,1,2-Trichloroethane			110.8		%		50-140	12-OCT-21
1,1-Dichloroethane			117.6		%		50-140	12-OCT-21
1,1-Dichloroethylene			112.7		%		50-140	12-OCT-21
1,2-Dibromoethane			106.3		%		50-140	12-OCT-21
1,2-Dichlorobenzene			112.5		%		50-140	12-OCT-21
1,2-Dichloroethane			114.2		%		50-140	12-OCT-21
1,2-Dichloropropane			112.0		%		50-140	12-OCT-21
1,3-Dichlorobenzene			114.0		%		50-140	12-OCT-21
1,4-Dichlorobenzene			115.7		%		50-140	12-OCT-21
Acetone			118.8		%		50-140	12-OCT-21
Benzene			116.4		%		50-140	12-OCT-21
Bromodichloromethane			127.1		%		50-140	12-OCT-21
Bromoform			107.1		%		50-140	12-OCT-21



Quality Control Report

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5615811							
WG3634824-5	MS	WG3634824-3						
Bromomethane			107.1		%		50-140	12-OCT-21
Carbon tetrachloride			111.5		%		50-140	12-OCT-21
Chlorobenzene			103.8		%		50-140	12-OCT-21
Chloroform			119.0		%		50-140	12-OCT-21
cis-1,2-Dichloroethylene			101.7		%		50-140	12-OCT-21
cis-1,3-Dichloropropene			117.2		%		50-140	12-OCT-21
Dibromochloromethane			115.3		%		50-140	12-OCT-21
Dichlorodifluoromethane			95.2		%		50-140	12-OCT-21
Ethylbenzene			107.2		%		50-140	12-OCT-21
n-Hexane			112.8		%		50-140	12-OCT-21
Methylene Chloride			125.1		%		50-140	12-OCT-21
MTBE			109.6		%		50-140	12-OCT-21
m+p-Xylenes			107.5		%		50-140	12-OCT-21
Methyl Ethyl Ketone			107.2		%		50-140	12-OCT-21
Methyl Isobutyl Ketone			95.8		%		50-140	12-OCT-21
o-Xylene			108.0		%		50-140	12-OCT-21
Styrene			103.8		%		50-140	12-OCT-21
Tetrachloroethylene			112.5		%		50-140	12-OCT-21
Toluene			105.9		%		50-140	12-OCT-21
trans-1,2-Dichloroethylene			126.9		%		50-140	12-OCT-21
trans-1,3-Dichloropropene			109.4		%		50-140	12-OCT-21
Trichloroethylene			115.0		%		50-140	12-OCT-21
Trichlorofluoromethane			109.4		%		50-140	12-OCT-21
Vinyl chloride			89.5		%		50-140	12-OCT-21
Batch	R5616586							
WG3634868-4	DUP	WG3634868-3						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5616586							
WG3634868-4 DUP		WG3634868-3						
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	13-OCT-21
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	13-OCT-21
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-OCT-21
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	13-OCT-21
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-OCT-21
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	13-OCT-21
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	13-OCT-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	13-OCT-21
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	13-OCT-21
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	13-OCT-21
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	13-OCT-21
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	13-OCT-21
Vinyl chloride		<0.020	<0.020		ug/g			13-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5616586							
WG3634868-4	DUP	WG3634868-3						
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	13-OCT-21
WG3634868-2	LCS							
1,1,1,2-Tetrachloroethane			92.5		%		60-130	13-OCT-21
1,1,2,2-Tetrachloroethane			91.0		%		60-130	13-OCT-21
1,1,1-Trichloroethane			93.4		%		60-130	13-OCT-21
1,1,2-Trichloroethane			92.5		%		60-130	13-OCT-21
1,1-Dichloroethane			93.6		%		60-130	13-OCT-21
1,1-Dichloroethylene			97.9		%		60-130	13-OCT-21
1,2-Dibromoethane			87.6		%		70-130	13-OCT-21
1,2-Dichlorobenzene			96.0		%		70-130	13-OCT-21
1,2-Dichloroethane			100.2		%		60-130	13-OCT-21
1,2-Dichloropropane			97.4		%		70-130	13-OCT-21
1,3-Dichlorobenzene			97.6		%		70-130	13-OCT-21
1,4-Dichlorobenzene			97.1		%		70-130	13-OCT-21
Acetone			108.4		%		60-140	13-OCT-21
Benzene			94.0		%		70-130	13-OCT-21
Bromodichloromethane			101.0		%		50-140	13-OCT-21
Bromoform			88.1		%		70-130	13-OCT-21
Bromomethane			86.8		%		50-140	13-OCT-21
Carbon tetrachloride			92.8		%		70-130	13-OCT-21
Chlorobenzene			95.5		%		70-130	13-OCT-21
Chloroform			95.7		%		70-130	13-OCT-21
cis-1,2-Dichloroethylene			89.1		%		70-130	13-OCT-21
cis-1,3-Dichloropropene			91.6		%		70-130	13-OCT-21
Dibromochloromethane			93.2		%		60-130	13-OCT-21
Dichlorodifluoromethane			70.0		%		50-140	13-OCT-21
Ethylbenzene			91.9		%		70-130	13-OCT-21
n-Hexane			94.7		%		70-130	13-OCT-21
Methylene Chloride			89.9		%		70-130	13-OCT-21
MTBE			93.4		%		70-130	13-OCT-21
m+p-Xylenes			96.3		%		70-130	13-OCT-21
Methyl Ethyl Ketone			91.9		%		60-140	13-OCT-21
Methyl Isobutyl Ketone			88.9		%		60-140	13-OCT-21
o-Xylene			91.6		%		70-130	13-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.
4361 Harvester Road Unit 12
BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5616586							
WG3634868-2	LCS							
Styrene			92.0		%		70-130	13-OCT-21
Tetrachloroethylene			91.0		%		60-130	13-OCT-21
Toluene			92.5		%		70-130	13-OCT-21
trans-1,2-Dichloroethylene			100.3		%		60-130	13-OCT-21
trans-1,3-Dichloropropene			88.4		%		70-130	13-OCT-21
Trichloroethylene			88.3		%		60-130	13-OCT-21
Trichlorofluoromethane			89.1		%		50-140	13-OCT-21
Vinyl chloride			83.4		%		60-140	13-OCT-21
WG3634868-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	13-OCT-21
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	13-OCT-21
1,1,1-Trichloroethane			<0.050		ug/g		0.05	13-OCT-21
1,1,2-Trichloroethane			<0.050		ug/g		0.05	13-OCT-21
1,1-Dichloroethane			<0.050		ug/g		0.05	13-OCT-21
1,1-Dichloroethylene			<0.050		ug/g		0.05	13-OCT-21
1,2-Dibromoethane			<0.050		ug/g		0.05	13-OCT-21
1,2-Dichlorobenzene			<0.050		ug/g		0.05	13-OCT-21
1,2-Dichloroethane			<0.050		ug/g		0.05	13-OCT-21
1,2-Dichloropropane			<0.050		ug/g		0.05	13-OCT-21
1,3-Dichlorobenzene			<0.050		ug/g		0.05	13-OCT-21
1,4-Dichlorobenzene			<0.050		ug/g		0.05	13-OCT-21
Acetone			<0.50		ug/g		0.5	13-OCT-21
Benzene			<0.0068		ug/g		0.0068	13-OCT-21
Bromodichloromethane			<0.050		ug/g		0.05	13-OCT-21
Bromoform			<0.050		ug/g		0.05	13-OCT-21
Bromomethane			<0.050		ug/g		0.05	13-OCT-21
Carbon tetrachloride			<0.050		ug/g		0.05	13-OCT-21
Chlorobenzene			<0.050		ug/g		0.05	13-OCT-21
Chloroform			<0.050		ug/g		0.05	13-OCT-21
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	13-OCT-21
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	13-OCT-21
Dibromochloromethane			<0.050		ug/g		0.05	13-OCT-21
Dichlorodifluoromethane			<0.050		ug/g		0.05	13-OCT-21
Ethylbenzene			<0.018		ug/g		0.018	13-OCT-21



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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5616586							
WG3634868-1 MB								
n-Hexane			<0.050		ug/g		0.05	13-OCT-21
Methylene Chloride			<0.050		ug/g		0.05	13-OCT-21
MTBE			<0.050		ug/g		0.05	13-OCT-21
m+p-Xylenes			<0.030		ug/g		0.03	13-OCT-21
Methyl Ethyl Ketone			<0.50		ug/g		0.5	13-OCT-21
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	13-OCT-21
o-Xylene			<0.020		ug/g		0.02	13-OCT-21
Styrene			<0.050		ug/g		0.05	13-OCT-21
Tetrachloroethylene			<0.050		ug/g		0.05	13-OCT-21
Toluene			<0.080		ug/g		0.08	13-OCT-21
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	13-OCT-21
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	13-OCT-21
Trichloroethylene			<0.010		ug/g		0.01	13-OCT-21
Trichlorofluoromethane			<0.050		ug/g		0.05	13-OCT-21
Vinyl chloride			<0.020		ug/g		0.02	13-OCT-21
Surrogate: 1,4-Difluorobenzene			90.1		%		50-140	13-OCT-21
Surrogate: 4-Bromofluorobenzene			83.6		%		50-140	13-OCT-21
WG3634868-5 MS		WG3634868-3						
1,1,1,2-Tetrachloroethane			110.1		%		50-140	14-OCT-21
1,1,2,2-Tetrachloroethane			125.3		%		50-140	14-OCT-21
1,1,1-Trichloroethane			122.9		%		50-140	14-OCT-21
1,1,2-Trichloroethane			116.8		%		50-140	14-OCT-21
1,1-Dichloroethane			112.8		%		50-140	14-OCT-21
1,1-Dichloroethylene			128.7		%		50-140	14-OCT-21
1,2-Dibromoethane			106.9		%		50-140	14-OCT-21
1,2-Dichlorobenzene			113.3		%		50-140	14-OCT-21
1,2-Dichloroethane			130.7		%		50-140	14-OCT-21
1,2-Dichloropropane			111.1		%		50-140	14-OCT-21
1,3-Dichlorobenzene			113.7		%		50-140	14-OCT-21
1,4-Dichlorobenzene			113.7		%		50-140	14-OCT-21
Acetone			141.5	MES	%		50-140	14-OCT-21
Benzene			119.1		%		50-140	14-OCT-21
Bromodichloromethane			129.5		%		50-140	14-OCT-21
Bromoform			130.7		%		50-140	14-OCT-21

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Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

Contact: DANA HASLETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R5616586							
WG3634868-5	MS	WG3634868-3						
Bromomethane			118.2		%		50-140	14-OCT-21
Carbon tetrachloride			112.7		%		50-140	14-OCT-21
Chlorobenzene			115.6		%		50-140	14-OCT-21
Chloroform			118.9		%		50-140	14-OCT-21
cis-1,2-Dichloroethylene			104.7		%		50-140	14-OCT-21
cis-1,3-Dichloropropene			122.1		%		50-140	14-OCT-21
Dibromochloromethane			118.6		%		50-140	14-OCT-21
Dichlorodifluoromethane			157.0	RRQC	%		50-140	14-OCT-21
Ethylbenzene			127.0		%		50-140	14-OCT-21
n-Hexane			113.5		%		50-140	14-OCT-21
Methylene Chloride			103.2		%		50-140	14-OCT-21
MTBE			122.1		%		50-140	14-OCT-21
m+p-Xylenes			136.4		%		50-140	14-OCT-21
Methyl Ethyl Ketone			126.6		%		50-140	14-OCT-21
Methyl Isobutyl Ketone			122.3		%		50-140	14-OCT-21
o-Xylene			128.3		%		50-140	14-OCT-21
Styrene			117.9		%		50-140	14-OCT-21
Tetrachloroethylene			112.8		%		50-140	14-OCT-21
Toluene			120.0		%		50-140	14-OCT-21
trans-1,2-Dichloroethylene			114.0		%		50-140	14-OCT-21
trans-1,3-Dichloropropene			135.0		%		50-140	14-OCT-21
Trichloroethylene			96.2		%		50-140	14-OCT-21
Trichlorofluoromethane			128.1		%		50-140	14-OCT-21
Vinyl chloride			106.3		%		50-140	14-OCT-21

COMMENTS: Matrix spike recovery was above ALS DQO. Non-detect sample results are considered reliable. Other results, if reported, have been qualified.

Quality Control Report

Workorder: L2648566

Report Date: 12-NOV-21

Client: G2S ENVIRONMENTAL CONSULTING, INC.

4361 Harvester Road Unit 12

BURLINGTON ON L7L 5M4

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Contact: DANA HASLETT

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).
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.
RRQC	Refer to report remarks for information regarding this QC result.

Hold Time Exceedances:

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

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

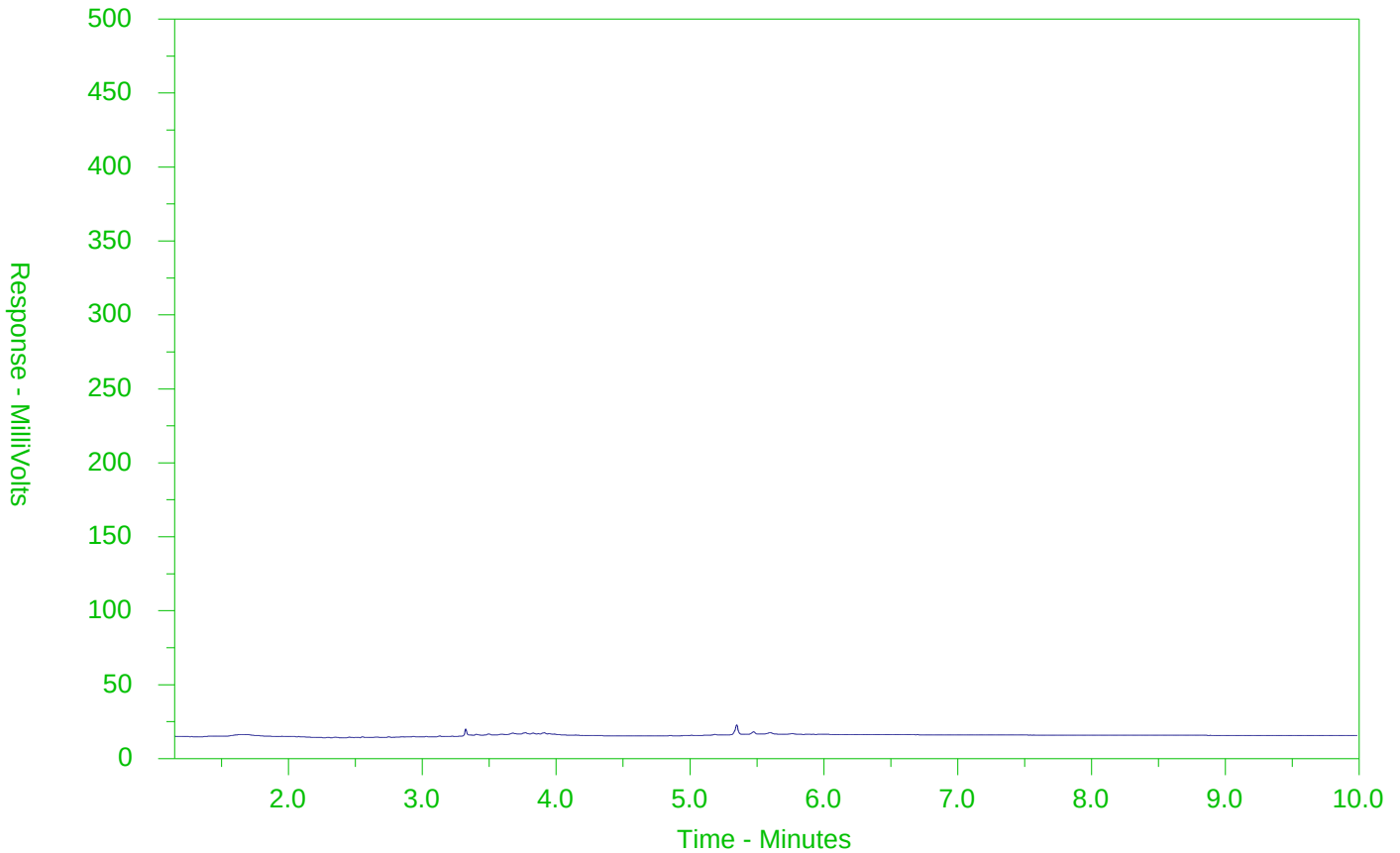
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2648566-1
Client Sample ID: BH105 SS1



← 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.

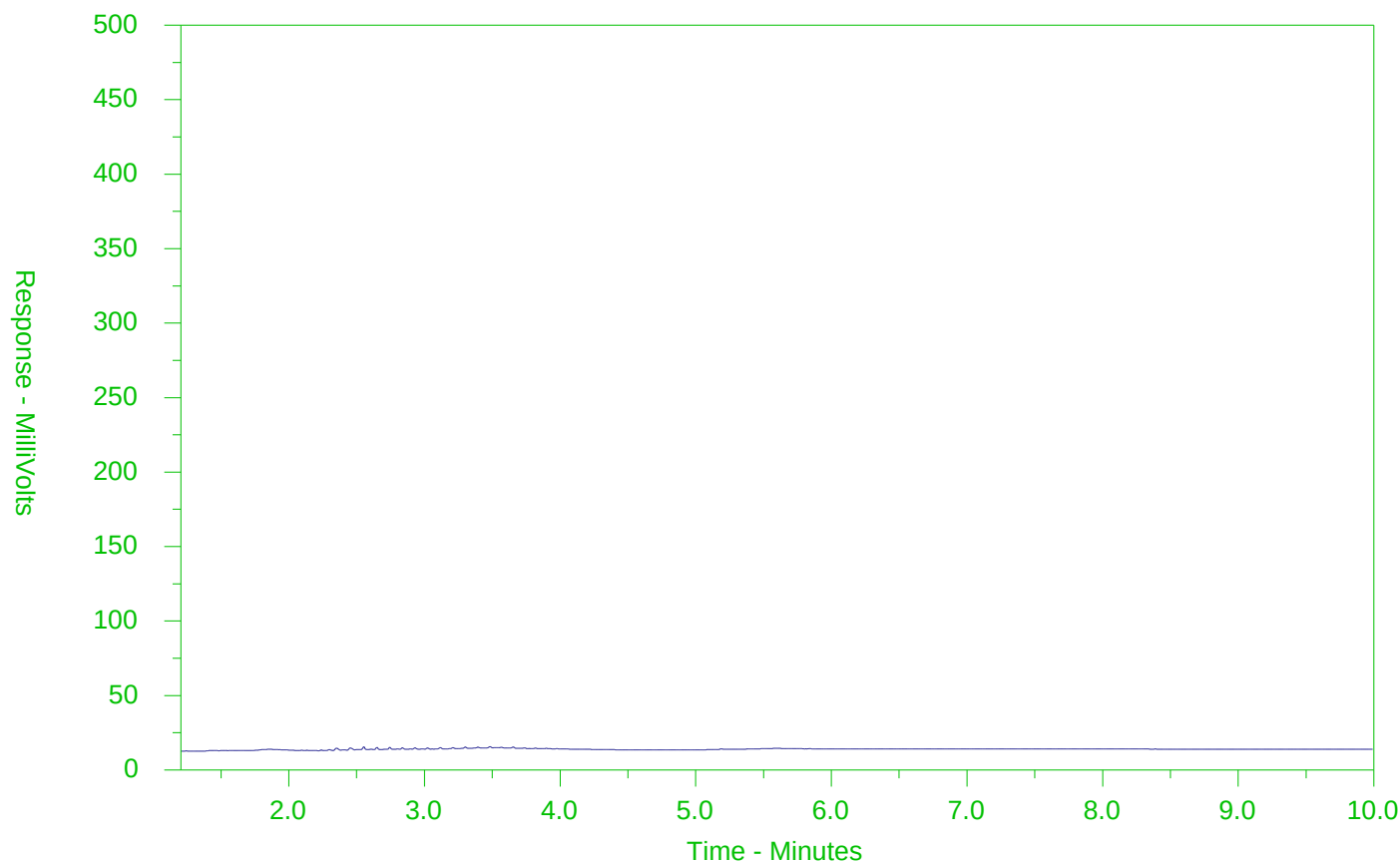
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2648566-2
Client Sample ID: BH110 SS4



← 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.

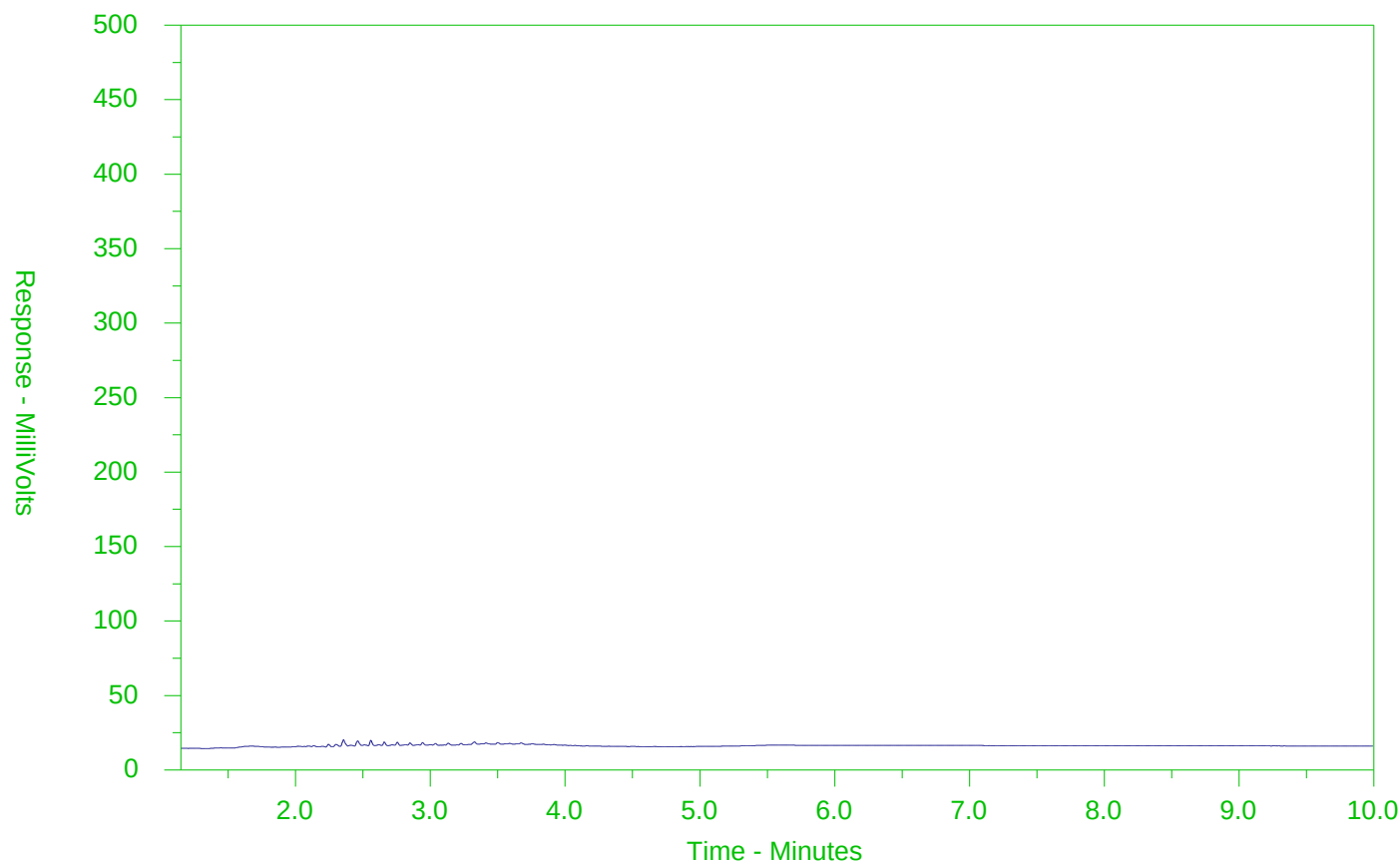
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2648566-3
Client Sample ID: BH112 SS4



← 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.

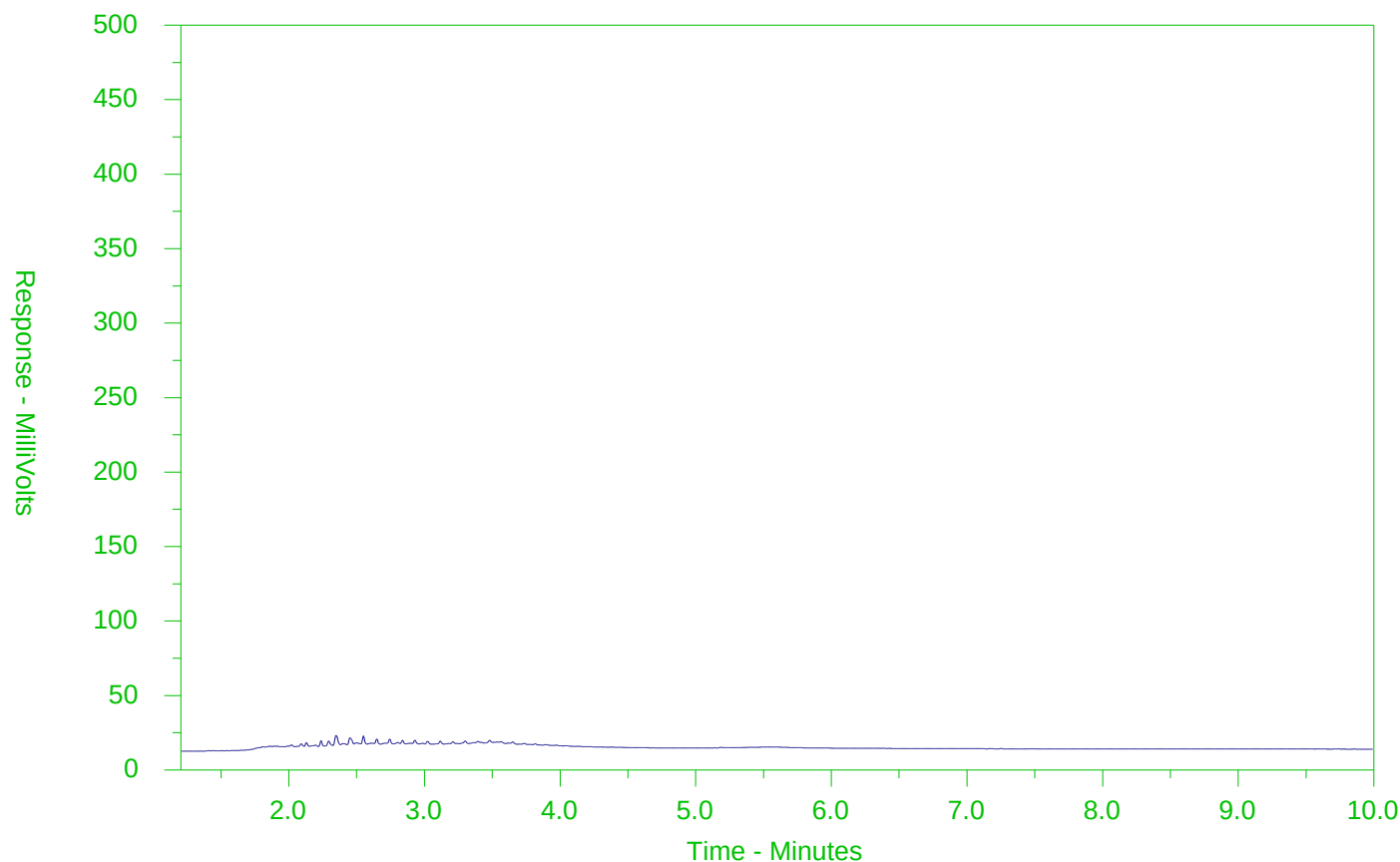
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2648566-4
Client Sample ID: BH122 SS5



← 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

Canada Toll Free: 1 800 668 9878

Affix ALS barcode label here

(lab use only)

COC Number: 14 -

Page 1 of 1

www.alsglobal.com

[illegible]

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

NA-FM-0326n v09 Front/04 January 2014

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**.

9.700

Certificate of Analysis

G2S Environmental Consulting Inc. (Burlington)

4361 Harvester Road, Unit 12
Burlington, ON L7L 5M4
Attn: Dana Haslett

Client PO:
Project: G2S21366
Custody:

Report Date: 20-Oct-2021
Order Date: 14-Oct-2021

Order #: 2142318

This Certificate of Analysis contains analytical data applicable to the following samples as submitted:

Paracel ID	Client ID
2142318-01	MW105
2142318-02	MW110
2142318-03	MW122

Approved By:



Alex Enfield, MSc
Lab Manager

Certificate of Analysis

Client: G2S Environmental Consulting Inc. (Burlington)

Client PO:

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Project Description: G2S21366

Analysis Summary Table

Analysis	Method Reference/Description	Extraction Date	Analysis Date
PHC F1	CWS Tier 1 - P&T GC-FID	15-Oct-21	18-Oct-21
PHCs F2 to F4	CWS Tier 1 - GC-FID, extraction	19-Oct-21	20-Oct-21
REG 153: Metals by ICP/MS, water	EPA 200.8, ICP-MS	18-Oct-21	18-Oct-21
REG 153: VOCs by P&T GC-MS	EPA 624 - P&T GC-MS	18-Oct-21	18-Oct-21

Certificate of Analysis

Client: G2S Environmental Consulting Inc. (Burlington)

Client PO:

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Project Description: G2S21366

Summary of Exceedances

(If this page is blank then there are no exceedances)

Only those criteria that a sample exceeds will be highlighted in red

Regulatory Comparison:

Paracel Laboratories has provided regulatory guidelines on this report for informational purposes only and makes no representations or warranties that the data is accurate or reflects the current regulatory values. The user is advised to consult with the appropriate official regulations to evaluate compliance. Sample results that are highlighted have exceeded the selected regulatory limit. Calculated uncertainty estimations have not been applied for determining regulatory exceedances. Regulatory limits displayed in brackets, (), applies to medium and fine textured soils.

Criteria:

Client ID	Analyte	MDL / Units	Result	Reg 153/04 (2011)-Table 2 Potable Groundwater
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Certificate of Analysis
Client: G2S Environmental Consulting Inc. (Burlington)

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Client PO:
Project Description: G2S21366

Client ID:	MW105	MW110	MW122	-	Criteria: Reg 153/04 (2011)-Table 2 Potable Groundwater
Sample Date:	13-Oct-2021	13-Oct-2021	13-Oct-2021	-	
Sample ID:	2142318-01	2142318-02	2142318-03	-	
Matrix:	Ground Water	Ground Water	Ground Water	-	
MDL/Units					

Metals

Antimony	0.5 ug/L	<0.5	<0.5	<0.5	-	(6) 6 ug/L
Arsenic	1.0 ug/L	1.2	<1.0	3.5	-	(25) 25 ug/L
Barium	1.0 ug/L	118	95.8	219	-	(1,000) 1,000 ug/L
Beryllium	0.5 ug/L	<0.5	<0.5	<0.5	-	(4) 4 ug/L
Boron	10.0 ug/L	350	187	332	-	(5,000) 5,000 ug/L
Cadmium	0.2 ug/L	<0.2	<0.2	<0.2	-	(2.7) 2.7 ug/L
Chromium	1.0 ug/L	<1.0	<1.0	<1.0	-	(50) 50 ug/L
Cobalt	0.5 ug/L	<0.5	1.4	<0.5	-	(3.8) 3.8 ug/L
Copper	0.5 ug/L	<0.5	5.3	0.7	-	(87) 87 ug/L
Lead	0.2 ug/L	<0.2	0.2	<0.2	-	(10) 10 ug/L
Molybdenum	0.5 ug/L	<0.5	1.2	2.4	-	(70) 70 ug/L
Nickel	1.0 ug/L	<1.0	1.9	<1.0	-	(100) 100 ug/L
Selenium	1.0 ug/L	<1.0	<1.0	<1.0	-	(10) 10 ug/L
Silver	0.2 ug/L	<0.2	<0.2	<0.2	-	(1.5) 1.5 ug/L
Sodium	200 ug/L	46000	32000	81400	-	(490,000) 490,000 ug/L
Thallium	0.5 ug/L	<0.5	<0.5	<0.5	-	(2) 2 ug/L
Uranium	0.2 ug/L	0.2	4.2	1.2	-	(20) 20 ug/L
Vanadium	0.5 ug/L	<0.5	0.6	<0.5	-	(6.2) 6.2 ug/L
Zinc	5.0 ug/L	<5.0	<5.0	5.4	-	(1,100) 1,100 ug/L

Volatiles

Acetone	5.0 ug/L	<5.0	<5.0	<5.0	-	(2,700) 2,700 ug/L
Benzene	0.5 ug/L	<0.5	<0.5	<0.5	-	(5) 5 ug/L
Bromodichloromethane	0.5 ug/L	<0.5	<0.5	<0.5	-	(16) 16 ug/L

Certificate of Analysis

Report Date: 20-Oct-2021

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 14-Oct-2021

Client PO:
Project Description: G2S21366

	MDL/Units	Client ID:	MW105	MW110	MW122	-	Criteria:	
		Sample Date:	13-Oct-2021	13-Oct-2021	13-Oct-2021	-		
		Sample ID:	2142318-01	2142318-02	2142318-03	-	Reg 153/04 (2011)-Table 2 Potable Groundwater	
		Matrix:	Ground Water	Ground Water	Ground Water	-		
Bromoform	0.5 ug/L		<0.5	<0.5	<0.5	-	(25) 25	ug/L
Bromomethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(0.89) 0.89	ug/L
Carbon Tetrachloride	0.2 ug/L		<0.2	<0.2	<0.2	-	(5) 0.79	ug/L
Chlorobenzene	0.5 ug/L		<0.5	<0.5	<0.5	-	(30) 30	ug/L
Chloroform	0.5 ug/L		<0.5	<0.5	<0.5	-	(22) 2.4	ug/L
Dibromochloromethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(25) 25	ug/L
Dichlorodifluoromethane	1.0 ug/L		<1.0	<1.0	<1.0	-	(590) 590	ug/L
1,2-Dichlorobenzene	0.5 ug/L		<0.5	<0.5	<0.5	-	(3) 3	ug/L
1,3-Dichlorobenzene	0.5 ug/L		<0.5	<0.5	<0.5	-	(59) 59	ug/L
1,4-Dichlorobenzene	0.5 ug/L		<0.5	<0.5	<0.5	-	(1) 1	ug/L
1,1-Dichloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(5) 5	ug/L
1,2-Dichloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(5) 1.6	ug/L
1,1-Dichloroethylene	0.5 ug/L		<0.5	<0.5	<0.5	-	(14) 1.6	ug/L
cis-1,2-Dichloroethylene	0.5 ug/L		<0.5	<0.5	<0.5	-	(17) 1.6	ug/L
trans-1,2-Dichloroethylene	0.5 ug/L		<0.5	<0.5	<0.5	-	(17) 1.6	ug/L
1,2-Dichloropropane	0.5 ug/L		<0.5	<0.5	<0.5	-	(5) 5	ug/L
cis-1,3-Dichloropropylene	0.5 ug/L		<0.5	<0.5	<0.5	-		
trans-1,3-Dichloropropylene	0.5 ug/L		<0.5	<0.5	<0.5	-		
1,3-Dichloropropene, total	0.5 ug/L		<0.5	<0.5	<0.5	-	(0.5) 0.5	ug/L
Ethylbenzene	0.5 ug/L		<0.5	<0.5	<0.5	-	(2.4) 2.4	ug/L
Ethylene dibromide (dibromoethane)	0.2 ug/L		<0.2	<0.2	<0.2	-	(0.2) 0.2	ug/L
Hexane	1.0 ug/L		<1.0	<1.0	<1.0	-	(520) 51	ug/L
Methyl Ethyl Ketone (2-Butanone)	5.0 ug/L		<5.0	<5.0	<5.0	-	(1,800) 1,800	ug/L

Certificate of Analysis
Client: G2S Environmental Consulting Inc. (Burlington)

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Client PO:
Project Description: G2S21366

	MDL/Units	Client ID:	MW105	MW110	MW122	-	Criteria:	
		Sample Date:	13-Oct-2021	13-Oct-2021	13-Oct-2021	-		
		Sample ID:	2142318-01	2142318-02	2142318-03	-	Reg 153/04 (2011)-Table 2 Potable Groundwater	
		Matrix:	Ground Water	Ground Water	Ground Water	-		
	MDL/Units							
Methyl Isobutyl Ketone	5.0 ug/L		<5.0	<5.0	<5.0	-	(640) 640	ug/L
Methyl tert-butyl ether	2.0 ug/L		<2.0	<2.0	<2.0	-	(15) 15	ug/L
Methylene Chloride	5.0 ug/L		<5.0	<5.0	<5.0	-	(50) 50	ug/L
Styrene	0.5 ug/L		<0.5	<0.5	<0.5	-	(5.4) 5.4	ug/L
1,1,1,2-Tetrachloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(1.1) 1.1	ug/L
1,1,2,2-Tetrachloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(1) 1	ug/L
Tetrachloroethylene	0.5 ug/L		<0.5	<0.5	<0.5	-	(17) 1.6	ug/L
Toluene	0.5 ug/L		<0.5	<0.5	<0.5	-	(24) 24	ug/L
1,1,1-Trichloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(200) 200	ug/L
1,1,2-Trichloroethane	0.5 ug/L		<0.5	<0.5	<0.5	-	(5) 4.7	ug/L
Trichloroethylene	0.5 ug/L		<0.5	<0.5	<0.5	-	(5) 1.6	ug/L
Trichlorofluoromethane	1.0 ug/L		<1.0	<1.0	<1.0	-	(150) 150	ug/L
Vinyl chloride	0.5 ug/L		<0.5	<0.5	<0.5	-	(1.7) 0.5	ug/L
m,p-Xylenes	0.5 ug/L		<0.5	<0.5	<0.5	-		
o-Xylene	0.5 ug/L		<0.5	<0.5	<0.5	-		
Xylenes, total	0.5 ug/L		<0.5	<0.5	<0.5	-	(300) 300	ug/L
4-Bromofluorobenzene	Surrogate		110%	109%	101%	-		
Dibromofluoromethane	Surrogate		72.0%	71.7%	70.6%	-		
Toluene-d8	Surrogate		104%	104%	103%	-		
Hydrocarbons								
F1 PHCs (C6-C10)	25 ug/L		<25	<25	<25	-	(750) 750	ug/L
F2 PHCs (C10-C16)	100 ug/L		<100	<100	<100	-	(150) 150	ug/L
F3 PHCs (C16-C34)	100 ug/L		<100	<100	<100	-	(500) 500	ug/L
F4 PHCs (C34-C50)	100 ug/L		<100	<100	<100	-	(500) 500	ug/L

Certificate of Analysis

Report Date: 20-Oct-2021

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 14-Oct-2021

Client PO:

Project Description: G2S21366

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
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Hydrocarbons

F1 PHCs (C6-C10)	ND	25	ug/L
F2 PHCs (C10-C16)	ND	100	ug/L
F3 PHCs (C16-C34)	ND	100	ug/L
F4 PHCs (C34-C50)	ND	100	ug/L

Metals

Antimony	ND	0.5	ug/L
Arsenic	ND	1.0	ug/L
Barium	ND	1.0	ug/L
Beryllium	ND	0.5	ug/L
Boron	ND	10.0	ug/L
Cadmium	ND	0.2	ug/L
Chromium	ND	1.0	ug/L
Cobalt	ND	0.5	ug/L
Copper	ND	0.5	ug/L
Lead	ND	0.2	ug/L
Molybdenum	ND	0.5	ug/L
Nickel	ND	1.0	ug/L
Selenium	ND	1.0	ug/L
Silver	ND	0.2	ug/L
Sodium	ND	200	ug/L
Thallium	ND	0.5	ug/L
Uranium	ND	0.2	ug/L
Vanadium	ND	0.5	ug/L
Zinc	ND	5.0	ug/L

Volatiles

Acetone	ND	5.0	ug/L
Benzene	ND	0.5	ug/L
Bromodichloromethane	ND	0.5	ug/L
Bromoform	ND	0.5	ug/L
Bromomethane	ND	0.5	ug/L
Carbon Tetrachloride	ND	0.2	ug/L
Chlorobenzene	ND	0.5	ug/L
Chloroform	ND	0.5	ug/L
Dibromochloromethane	ND	0.5	ug/L
Dichlorodifluoromethane	ND	1.0	ug/L
1,2-Dichlorobenzene	ND	0.5	ug/L
1,3-Dichlorobenzene	ND	0.5	ug/L
1,4-Dichlorobenzene	ND	0.5	ug/L
1,1-Dichloroethane	ND	0.5	ug/L
1,2-Dichloroethane	ND	0.5	ug/L

Certificate of Analysis

Client: G2S Environmental Consulting Inc. (Burlington)

Client PO:

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Project Description: G2S21366

Method Quality Control: Blank

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
1,1-Dichloroethylene	ND	0.5	ug/L						
cis-1,2-Dichloroethylene	ND	0.5	ug/L						
trans-1,2-Dichloroethylene	ND	0.5	ug/L						
1,2-Dichloropropane	ND	0.5	ug/L						
cis-1,3-Dichloropropylene	ND	0.5	ug/L						
trans-1,3-Dichloropropylene	ND	0.5	ug/L						
1,3-Dichloropropene, total	ND	0.5	ug/L						
Ethylbenzene	ND	0.5	ug/L						
Ethylene dibromide (dibromoethane, 1,2-	ND	0.2	ug/L						
Hexane	ND	1.0	ug/L						
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L						
Methyl Isobutyl Ketone	ND	5.0	ug/L						
Methyl tert-butyl ether	ND	2.0	ug/L						
Methylene Chloride	ND	5.0	ug/L						
Styrene	ND	0.5	ug/L						
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L						
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L						
Tetrachloroethylene	ND	0.5	ug/L						
Toluene	ND	0.5	ug/L						
1,1,1-Trichloroethane	ND	0.5	ug/L						
1,1,2-Trichloroethane	ND	0.5	ug/L						
Trichloroethylene	ND	0.5	ug/L						
Trichlorofluoromethane	ND	1.0	ug/L						
Vinyl chloride	ND	0.5	ug/L						
m,p-Xylenes	ND	0.5	ug/L						
o-Xylene	ND	0.5	ug/L						
Xylenes, total	ND	0.5	ug/L						
Surrogate: 4-Bromofluorobenzene	81.8		ug/L		102	50-140			
Surrogate: Dibromofluoromethane	57.7		ug/L		72.1	50-140			
Surrogate: Toluene-d8	82.3		ug/L		103	50-140			

Certificate of Analysis

Report Date: 20-Oct-2021

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 14-Oct-2021

Client PO:

Project Description: G2S21366

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	ND	25	ug/L	ND			NC	30	
Metals									
Antimony	ND	0.5	ug/L	ND			NC	20	
Arsenic	2.6	1.0	ug/L	2.6			0.2	20	
Barium	21.0	1.0	ug/L	20.5			2.0	20	
Beryllium	ND	0.5	ug/L	ND			NC	20	
Boron	378	100	ug/L	312			18.9	20	
Cadmium	ND	0.2	ug/L	ND			NC	20	
Chromium	ND	1.0	ug/L	ND			NC	20	
Cobalt	1.0	0.5	ug/L	1.0			0.4	20	
Copper	0.9	0.5	ug/L	0.9			7.4	20	
Lead	ND	0.2	ug/L	ND			NC	20	
Molybdenum	1.8	0.5	ug/L	1.6			11.6	20	
Nickel	ND	1.0	ug/L	ND			NC	20	
Selenium	1.4	1.0	ug/L	1.3			7.6	20	
Silver	ND	0.2	ug/L	ND			NC	20	
Sodium	144000	2000	ug/L	139000			3.7	20	
Thallium	ND	0.5	ug/L	ND			NC	20	
Uranium	7.1	0.2	ug/L	6.5			7.6	20	
Vanadium	ND	0.5	ug/L	ND			NC	20	
Zinc	6.0	5.0	ug/L	6.0			0.2	20	
Volatiles									
Acetone	ND	5.0	ug/L	ND			NC	30	
Benzene	ND	0.5	ug/L	ND			NC	30	
Bromodichloromethane	ND	0.5	ug/L	ND			NC	30	
Bromoform	ND	0.5	ug/L	ND			NC	30	
Bromomethane	ND	0.5	ug/L	ND			NC	30	
Carbon Tetrachloride	ND	0.2	ug/L	ND			NC	30	
Chlorobenzene	ND	0.5	ug/L	ND			NC	30	
Chloroform	ND	0.5	ug/L	ND			NC	30	
Dibromochloromethane	ND	0.5	ug/L	ND			NC	30	
Dichlorodifluoromethane	ND	1.0	ug/L	ND			NC	30	
1,2-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,3-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,4-Dichlorobenzene	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
cis-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	

Certificate of Analysis

Client: G2S Environmental Consulting Inc. (Burlington)

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Client PO:

Project Description: G2S21366

Method Quality Control: Duplicate

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
trans-1,2-Dichloroethylene	ND	0.5	ug/L	ND			NC	30	
1,2-Dichloropropane	ND	0.5	ug/L	ND			NC	30	
cis-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
trans-1,3-Dichloropropylene	ND	0.5	ug/L	ND			NC	30	
Ethylbenzene	ND	0.5	ug/L	ND			NC	30	
Ethylene dibromide (dibromoethane, 1,2-	ND	0.2	ug/L	ND			NC	30	
Hexane	ND	1.0	ug/L	ND			NC	30	
Methyl Ethyl Ketone (2-Butanone)	ND	5.0	ug/L	ND			NC	30	
Methyl Isobutyl Ketone	ND	5.0	ug/L	ND			NC	30	
Methyl tert-butyl ether	ND	2.0	ug/L	ND			NC	30	
Methylene Chloride	ND	5.0	ug/L	ND			NC	30	
Styrene	ND	0.5	ug/L	ND			NC	30	
1,1,1,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2,2-Tetrachloroethane	ND	0.5	ug/L	ND			NC	30	
Tetrachloroethylene	ND	0.5	ug/L	ND			NC	30	
Toluene	ND	0.5	ug/L	ND			NC	30	
1,1,1-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
1,1,2-Trichloroethane	ND	0.5	ug/L	ND			NC	30	
Trichloroethylene	ND	0.5	ug/L	ND			NC	30	
Trichlorofluoromethane	ND	1.0	ug/L	ND			NC	30	
Vinyl chloride	ND	0.5	ug/L	ND			NC	30	
m,p-Xylenes	ND	0.5	ug/L	ND			NC	30	
o-Xylene	ND	0.5	ug/L	ND			NC	30	
Surrogate: 4-Bromofluorobenzene	80.9		ug/L		101	50-140			
Surrogate: Dibromofluoromethane	61.4		ug/L		76.7	50-140			
Surrogate: Toluene-d8	82.8		ug/L		104	50-140			

Certificate of Analysis

Report Date: 20-Oct-2021

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 14-Oct-2021

Client PO:
Project Description: G2S21366
Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Hydrocarbons									
F1 PHCs (C6-C10)	809	25	ug/L	ND	114	68-117			
F2 PHCs (C10-C16)	1700	100	ug/L	ND	103	60-140			
F3 PHCs (C16-C34)	4230	100	ug/L	ND	114	60-140			
F4 PHCs (C34-C50)	2510	100	ug/L	ND	93.9	60-140			
Metals									
Antimony	47.0	0.5	ug/L	ND	94.1	70-130			
Arsenic	57.7	1.0	ug/L	2.6	110	70-130			
Barium	71.0	1.0	ug/L	20.5	101	70-130			
Beryllium	47.8	0.5	ug/L	ND	95.6	70-130			
Boron	294	10.0	ug/L	312	-36.1	70-130			QM-4X
Cadmium	44.4	0.2	ug/L	ND	88.9	70-130			
Chromium	46.1	1.0	ug/L	ND	92.2	70-130			
Cobalt	44.9	0.5	ug/L	1.0	87.8	70-130			
Copper	45.6	0.5	ug/L	0.9	89.4	70-130			
Lead	43.6	0.2	ug/L	ND	87.1	70-130			
Molybdenum	50.6	0.5	ug/L	1.6	97.9	70-130			
Nickel	45.7	1.0	ug/L	ND	91.4	70-130			
Selenium	57.2	1.0	ug/L	1.3	112	70-130			
Silver	44.7	0.2	ug/L	ND	89.5	70-130			
Sodium	135000	200	ug/L	139000	-373	70-130			QM-4X
Thallium	43.7	0.5	ug/L	ND	87.5	70-130			
Uranium	49.6	0.2	ug/L	6.5	86.1	70-130			
Vanadium	48.4	0.5	ug/L	ND	96.8	70-130			
Zinc	53.1	5.0	ug/L	6.0	94.2	70-130			
Volatiles									
Acetone	100	5.0	ug/L	ND	103	50-140			
Benzene	43.8	0.5	ug/L	ND	109	50-140			
Bromodichloromethane	41.7	0.5	ug/L	ND	104	50-140			
Bromoform	37.0	0.5	ug/L	ND	92.2	50-140			
Bromomethane	44.7	0.5	ug/L	ND	112	50-140			
Carbon Tetrachloride	39.7	0.2	ug/L	ND	99.3	50-140			
Chlorobenzene	39.3	0.5	ug/L	ND	97.7	50-140			
Chloroform	41.8	0.5	ug/L	ND	104	50-140			

Certificate of Analysis

Report Date: 20-Oct-2021

Client: G2S Environmental Consulting Inc. (Burlington)

Order Date: 14-Oct-2021

Client PO:

Project Description: G2S21366

Method Quality Control: Spike

Analyte	Result	Reporting Limit	Units	Source Result	%REC	%REC Limit	RPD	RPD Limit	Notes
Dibromochloromethane	38.9	0.5	ug/L	ND	97.3	50-140			
Dichlorodifluoromethane	44.7	1.0	ug/L	ND	112	50-140			
1,2-Dichlorobenzene	39.0	0.5	ug/L	ND	97.5	50-140			
1,3-Dichlorobenzene	38.5	0.5	ug/L	ND	96.3	50-140			
1,4-Dichlorobenzene	38.0	0.5	ug/L	ND	94.7	50-140			
1,1-Dichloroethane	41.0	0.5	ug/L	ND	103	50-140			
1,2-Dichloroethane	42.6	0.5	ug/L	ND	106	50-140			
1,1-Dichloroethylene	38.1	0.5	ug/L	ND	95.3	50-140			
cis-1,2-Dichloroethylene	40.0	0.5	ug/L	ND	99.4	50-140			
trans-1,2-Dichloroethylene	38.6	0.5	ug/L	ND	96.1	50-140			
1,2-Dichloropropane	44.5	0.5	ug/L	ND	111	50-140			
cis-1,3-Dichloropropylene	43.1	0.5	ug/L	ND	108	50-140			
trans-1,3-Dichloropropylene	42.4	0.5	ug/L	ND	106	50-140			
Ethylbenzene	39.9	0.5	ug/L	ND	99.2	50-140			
Ethylene dibromide (dibromoethane, 1,2-	40.1	0.2	ug/L	ND	99.9	50-140			
Hexane	42.0	1.0	ug/L	ND	105	50-140			
Methyl Ethyl Ketone (2-Butanone)	116	5.0	ug/L	ND	113	50-140			
Methyl Isobutyl Ketone	124	5.0	ug/L	ND	127	50-140			
Methyl tert-butyl ether	118	2.0	ug/L	ND	118	50-140			
Methylene Chloride	40.6	5.0	ug/L	ND	101	50-140			
Styrene	39.7	0.5	ug/L	ND	98.2	50-140			
1,1,1,2-Tetrachloroethane	38.9	0.5	ug/L	ND	97.4	50-140			
1,1,2,2-Tetrachloroethane	41.5	0.5	ug/L	ND	103	50-140			
Tetrachloroethylene	37.7	0.5	ug/L	ND	93.7	50-140			
Toluene	39.8	0.5	ug/L	ND	99.4	50-140			
1,1,1-Trichloroethane	40.0	0.5	ug/L	ND	100	50-140			
1,1,2-Trichloroethane	44.4	0.5	ug/L	ND	111	50-140			
Trichloroethylene	44.0	0.5	ug/L	ND	110	50-140			
Trichlorofluoromethane	40.4	1.0	ug/L	ND	101	50-140			
Vinyl chloride	40.9	0.5	ug/L	ND	102	50-140			
m,p-Xylenes	77.8	0.5	ug/L	ND	97.0	50-140			
o-Xylene	39.1	0.5	ug/L	ND	97.3	50-140			
Surrogate: 4-Bromofluorobenzene	84.1		ug/L		105	50-140			
Surrogate: Dibromofluoromethane	105		ug/L		132	50-140			
Surrogate: Toluene-d8	79.9		ug/L		99.8	50-140			

Certificate of Analysis

Client: G2S Environmental Consulting Inc. (Burlington)

Client PO:

Report Date: 20-Oct-2021

Order Date: 14-Oct-2021

Project Description: G2S21366

Qualifier Notes:

QC Qualifiers :

QM-4X : The spike recovery was outside of QC acceptance limits due to elevated analyte concentration.

Sample Data Revisions

None

Work Order Revisions / Comments:

None

Other Report Notes:

n/a: not applicable

ND: Not Detected

MDL: Method Detection Limit

Source Result: Data used as source for matrix and duplicate samples

%REC: Percent recovery.

RPD: Relative percent difference.

NC: Not Calculated

CCME PHC additional information:

- The method for the analysis of PHCs complies with the Reference Method for the CWS PHC and is validated for use in the laboratory. All prescribed quality criteria identified in the method has been met.
- F1 range corrected for BTEX.
- F2 to F3 ranges corrected for appropriate PAHs where available.
- The gravimetric heavy hydrocarbons (F4G) are not to be added to C6 to C50 hydrocarbons.
- In the case where F4 and F4G are both reported, the greater of the two results is to be used for comparison to CWS PHC criteria.
- When reported, data for F4G has been processed using a silica gel cleanup.

Any use of these results implies your agreement that our total liability in connection with this work, however arising, shall be limited to the amount paid by you for this work, and that our employees or agents shall not under any circumstances be liable to you in connection with this work.

