

Phase Two Environmental Site Assessment



580 Hazelhurst Road, Mississauga, Ontario
G2S19650B

2715623 Ontario Inc.
125 Villarbolt Crescent
Vaughan, Ontario
L4K 4K2

Executive Summary

G2S Environmental Consulting Inc. (G2S) was retained by 2715623 Ontario Inc. to complete a Phase Two Environmental Site Assessment (ESA) for the property located at 580 Hazelhurst Road in Mississauga, Ontario, hereinafter referred to as the 'Site'.

The irregularly shaped Site is located on the southwest side of Hazelhurst Road, approximately 725 m northwest of the intersection with Lakeshore Road. Winston Churchill Boulevard is located approximately 400 m southwest. The Site is located in an area consisting of industrial land use. Clearview Creek is located approximately 270 m southwest and Avonhead Creek is located approximately 200 m northeast of the Site, both flowing to Lake Ontario, located approximately 1.0 km southeast. The Site location is illustrated on Drawing 1 in Appendix A.

G2S completed a Phase One ESA for the property entitled:

"Phase One Environmental Site Assessment, 580 Hazelhurst Road, Mississauga, Ontario," dated September 3, 2019. The Phase One ESA identified Areas of Potential Environmental Concern (APECs) on the property. The potential environmental risks to the property include:

1. Current and historical use of the Site for storage and repairs of heavy machinery.
2. Current and historical presence of aboveground storage tanks (ASTs) containing diesel fuel and used oil for approximately 10 years. The tanks were observed to be in poor condition and staining was observed beneath the tanks.
3. Current and historical use of the northwest adjacent property (584 Hazelhurst Road) for storage of shipping containers and the generation of waste oils and lubricants.

In order to assess the environmental conditions of the property, a Phase Two ESA was recommended to investigate the potential impacts from the identified APECs. The APECs are shown on Drawing 2 in Appendix A.

This Phase Two ESA was completed in accordance with the general requirements of CSA Standard Z769-00, 'Phase Two Environmental Site Assessment', which outlines the protocol for Phase Two ESAs.

For evaluation of the soil and groundwater quality, G2S compared the analytical results to the Ministry of Environment, Conservation, and Parks (MECP) Table 3 Site Condition Standards (SCS) for Non-Potable Groundwater Conditions, Industrial/Commercial/Community Property use, with fine grained soil. The SCS are defined in "Soil, Groundwater and Sediment Standards for use under Part XV.1 of the Environmental Protection Act", MECP, April 15, 2011.

The Phase Two ESA included the advancement of five boreholes on the property, four of which were completed as groundwater monitoring wells. The results of the investigation lead to the following findings:

1. Native material beneath the Site consists of silty sand and silty clay.
2. Groundwater was found in the monitoring wells between depths of 1.20 and 1.99 m below ground surface (bgs).

3. Petroleum hydrocarbon (PHC) fractions F2, F3, and F4G (Gravimetric Heavy Hydrocarbons) were above the MECP Table 3 SCS in soil sample BH101 SS1.
4. The concentrations of volatile organic compounds (VOCs), metals, and polycyclic aromatic hydrocarbons (PAHs) were below the MECP Table 3 SCS in the analyzed soil samples.
5. The concentrations of PHCs, VOCs, metals, and PAHs in the groundwater in the areas tested meet the MECP Table 3 SCS.

Based on the results of the Phase Two ESA, the Site does not meet the MECP Table 3 SCS for Commercial/Industrial/Community Property Use with fine textured soil. PHC impacts were identified in surficial soil (0 – 0.6 m bgs) from borehole BH101, located in the vicinity of the diesel AST on-Site. It is likely that the impacts are limited to the shallow soil surrounding the AST as the soil sample collected from BH101 at a depth of 3.0 – 3.6 m bgs did not contain PHC parameters above the MECP Table 3 SCS.

The identified shallow PHC soil impacts are not anticipated to affect ongoing Site operations.

Should a Record of Site Condition (RSC) be required for the property, the identified soil impacts will need to be removed and further investigation would be required to satisfy the requirements of O.Reg. 153/04. RSCs are generally required with a change in land use, and in some instances, with an application for a building permit.

Table of Contents

Executive Summary	ii
1. Introduction	1
1.1 Site Description	1
1.2 Property Ownership.....	1
1.3 Current and Proposed Future Land Uses	1
1.4 Applicable Site Condition Standards	1
2. Background Information	3
2.1 Physical Setting.....	3
2.2 Past Investigation	3
3. Scope of the Investigation	4
3.1 Overview of Site Investigation	4
3.2 Scope of Work.....	4
4. Investigation Method	5
4.1 Drilling	5
4.2 Soil Sampling	5
4.3 Field Screening Measurements.....	5
4.4 Groundwater Monitoring Well Installation.....	5
4.5 Groundwater Sampling.....	6
4.6 Analytical Testing	6
4.7 Residue Management Procedures.....	6
4.8 Quality Assurance/Quality Control Measures.....	6
5. Review and Evaluation	7
5.1 Geology	7
5.2 Groundwater Levels	7
5.3 Soil Field Screening	8
5.4 Soil Quality	8
5.5 Groundwater Quality	9
5.6 Quality Assurance/Quality Control Results	10
6. Conclusions and Recommendations	12
7. Qualifications of the Assessors	13
8. References and Supporting Documentation	14
9. Limitations	15
10. Closing Remarks	16

Appendices

Appendix A: Drawings

Appendix B: Borehole Logs

Appendix C: Analytical Results Tables

Appendix D: Certificates of Analysis

1. Introduction

G2S Environmental Consulting Inc. (G2S) was retained by 2715623 Ontario Inc. to complete a Phase Two Environmental Site Assessment (ESA) for the property located at 580 Hazelhurst Road in Mississauga, Ontario, hereinafter referred to as the 'Site'.

This Investigation was completed in accordance with the general requirements of CSA Standard Z769-00, 'Phase Two Environmental Site Assessment', which outlines the protocol for Phase Two ESAs.

1.1 Site Description

The irregularly shaped Site is located on the southwest side of Hazelhurst Road, approximately 725 m northwest of the intersection with Lakeshore Road. Winston Churchill Boulevard is located approximately 400 m southwest. The Site is located in an area consisting of industrial land use. Clearview Creek is located approximately 270 m southwest and Avonhead Creek is located approximately 200 m northeast of the Site, both flowing to Lake Ontario, located approximately 1.0 km southeast. The Site location is illustrated on Drawing 1 in Appendix A.

The Site is currently occupied by Rumble Foundations (Ontario) Ltd. (Rumble), a company that designs and constructs shoring and foundation systems.

1.2 Property Ownership

The current owner of the property is 1629925 Ontario Limited.

1.3 Current and Proposed Future Land Uses

The Site is zoned for commercial/industrial use, with no planned change in land use.

1.4 Applicable Site Condition Standards

The assessment criteria applicable to a given site in Ontario are provided in the Ministry of 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 3 Site Condition Standard (SCS) for Non-Potable Groundwater Conditions, Industrial/Commercial/Community Property, with fine grained soil. 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, the predominant soil type on the Site is fine grained. Grain size analysis results are included in the laboratory Certificates of Analysis in Appendix D.
- The property use of the Site is commercial/industrial with no proposed change in land use.

- The property is not located within 30 metres of a water body.
- The Site is not considered a sensitive site based on:
 - The property is not within an area of natural significance or includes or is adjacent to such an area or part of such an area.
 - The MECP Table 1 SCS are applicable if pH values for surface soil (<1.5 m) are less than 5 or greater than 9 and pH values for subsurface soil (>1.5 m) are less than 5 or greater than 11. Surface soil sample BH102 SS3 and subsurface soil sample BH102 SS5, had pH values of 7.62 and 7.86, respectively. Therefore, based on the pH values, the Table 1 SCS are not applicable for the Site. Laboratory Certificates of Analysis are included in Appendix D.
- The potable groundwater condition does not apply to the Site based on:
 - To the best of G2S's knowledge, all properties within 100 m of the Site are serviced by the municipal water supply.
 - No potable wells were observed at the Site and based on G2S's knowledge of the area, it is not expected that any potable water wells exist within 100 m of the Site.
- 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.

2. Background Information

2.1 Physical Setting

The property is located approximately 90 m above sea level. Topographic maps show surface elevation to be decreasing in a southeasterly direction. Based on our observations and review, the expected direction of groundwater flow in the immediate area of the Site is southeast, following surface topography towards Lake Ontario. Up-gradient properties located north/northwest of the Site were judged to have a higher environmental risk.

The geological and soil maps reviewed indicate that the Site and surrounding area are characterized by the Georgian Bay Formation, overlain by grey shale with limestone interbeds. The Soil Map indicated that the soil in the Site area is dominantly sandy loam.

2.2 Past Investigation

G2S completed a Phase One ESA for the property entitled:

"Phase One Environmental Site Assessment, 580 Hazelhurst Road, Mississauga, Ontario," dated September 3, 2019.

The Phase One ESA identified three Areas of Potential Environmental Concern (APECs) on the property. The potential environmental risks to the property include:

1. Current and historical use of the Site for storage and repairs of heavy machinery.
2. Current and historical presence of aboveground storage tanks (ASTs) containing diesel fuel and used oil for approximately 10 years. The tanks were observed to be in poor condition and staining was observed beneath the tanks.
3. Current and historical use of the northwest adjacent property (584 Hazelhurst Road) for storage of shipping containers and the generation of waste oils and lubricants.

A Phase Two ESA was recommended to investigate potential environmental impacts resulting from the identified APECs.

3. Scope of the Investigation

3.1 Overview of Site Investigation

The objective of the Phase Two ESA is to investigate the soil and groundwater conditions at the Site.

3.2 Scope of Work

The scope of work for the investigation included the following:

- The advancement of five boreholes on-Site, four of which were completed as groundwater monitoring wells;
- Continuous collection of representative soil samples throughout the drilling processes from the boreholes, and submission of samples to laboratory for petroleum hydrocarbons (PHCs), volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), metals, pH, and grain size analysis;
- Development of the newly installed groundwater monitoring wells;
- The collection of groundwater samples from the newly installed monitoring wells and submission of samples to the laboratory for analysis of PHCs, VOCs, PAHs, and metals; and,
- Preparation of a Phase Two ESA Report.

4. Investigation Method

4.1 Drilling

The drilling for this investigation was conducted on August 24, 2019. Five boreholes (BH101 to BH105) were advanced on the Site by Tri-Phase Environmental Inc. (Tri-Phase), a licensed well contractor, under the supervision of G2S staff. Four of the boreholes (BH101, BH102, BH104 and BH105) were completed as groundwater monitoring wells, identified as MW101, MW102, MW104 and MW105, respectively. The boreholes were advanced with a Diedrich D50 truck-mounted drill rig. Petroleum-based greases and/or solvents were not used during drilling activities. The boreholes were sampled to depths between 3.6 and 4.35 m below ground surface (bgs).

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

4.2 Soil Sampling

G2S staff continually monitored the drilling activities to log the recovered soil cores and to record the depth of soil sample collection and total depth of the boreholes. Field observations recorded on the borehole logs are included in Appendix B. Soil samples were collected using split spoon samplers and PVC sampling tubes, dedicated nitrile gloves (one pair per sample), lab-supplied jars, methanol vials and Terra Core samplers (one per sample) for VOCs, and clean, ice-packed coolers to store and transport the samples under Chain of Custody (COC) protocols.

4.3 Field Screening Measurements

Organic vapour readings were recorded 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. Accuracy of the gas monitor varies with the type of gas being measured.

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. Organic vapour readings provide a general indication of the relative concentration of organic vapours encountered in the subsurface during drilling and are used in the screening and selection of soil samples for chemical analysis. The vapour readings, in parts per million (ppm), are recorded on the borehole logs presented in Appendix B. Each soil sample was examined for visual and olfactory evidence of impacts and for textural details at the time of sampling.

4.4 Groundwater Monitoring Well Installation

Groundwater monitoring wells were installed in boreholes BH101, BH102, BH104, and BH105, identified as MW101, MW102, MW104, and MW105, respectively. The monitoring wells were installed in general accordance with the Ontario Water Resources Act – R.R.O. 1990, Regulation 903 – amended to O. Reg. 128/03, and were installed by licensed well contractor, Tri-Phase.

The monitoring wells were installed to depths between 4.14 and 4.68 m bgs. The monitoring wells were constructed of 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 ground surface or monument 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 0.3 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 approximately 0.15 m below the ground surface. The monitoring wells were completed with flush-mounted protective steel casings cemented in place.

The Site owner is considered to be the well owner of the monitoring wells installed by Tri-Phase and supervised by G2S ("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.

4.5 Groundwater Sampling

On August 28, 2019, G2S attended the Site to record the groundwater levels in the monitoring wells and collect groundwater samples for chemical analysis. Groundwater was found in the monitoring wells between depths of 1.20 and 1.99 m bgs.

An electronic water level metre was used to record the depth of groundwater in the monitoring wells. The monitoring wells were developed prior to sampling by removing a minimum of three casing volumes. The groundwater was visually inspected for impacts during purging and sample collection. The electric water level metre was rinsed with a mild detergent, distilled water and methanol prior to sampling, to prevent cross-contamination. The monitoring wells were purged with a dedicated bailer and were sampled using a low-flow peristaltic pump.

4.6 Analytical Testing

Soil and groundwater samples were collected into new, laboratory-supplied sample jars with appropriate preservatives as required. A clean, ice-packed cooler was used to store and transport the soil and groundwater samples to ALS Environmental in Burlington, Ontario, under Chain of Custody (COC) protocols.

4.7 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 the investigation.

4.8 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 10mL 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. The remaining soil sample was placed in a sealable plastic bag and allowed to reach ambient temperature prior to field screening for the presence of organic vapours.

5. Review and Evaluation

5.1 Geology

Borehole logs presented in Appendix B provide a detailed outline of the soil profiles encountered in the boreholes. 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. A description of the soil stratigraphy encountered on the Site, in order of depth, is summarized in the sections below.

Fill Materials

Boreholes BH101 to BH105 were advanced through approximately 1.5 m of fill materials. The fill material consisted of dry grey, brown, and black sand, gravel and asphalt. The material was loose with trace rocks in boreholes BH101 and BH103, and contained trace grey silty clay in boreholes BH102 and BH103. A slight hydrocarbon odour was encountered in the fill material from 0 to 0.6 m bgs in borehole BH101.

Native Material

Silty sand over silty clay was encountered beneath the fill materials in boreholes BH101 and BH105. The silty sand was brown and soft and became wet at 2.25 m bgs, and the silty clay was grey, moist and very firm. Silty clay over silty sand was encountered beneath the fill materials in boreholes BH102 and BH104. The silty clay was grey, wet, and soft with trace rock, and the silty sand was brown, soft, and moist to wet. Grey silty clay was encountered in borehole BH102 beneath the silty sand and in BH103 beneath the fill materials to sample completion depths of 4.35 m bgs.

5.2 Groundwater Levels

The groundwater levels were recorded on August 28, 2019. Table 5.2 summarizes the depth of groundwater and monitoring well details.

Table 5.2: Groundwater Monitoring Well Summary

Monitoring Well	Surface elevation	Top of Pipe elevation	Well Depth (m bgs)	Top of Screen (m bgs)	Depth to GW (m bgs)	GW elevation
MW101	100.11	100.01	4.48	1.48	1.30	98.81
MW102	99.69	99.54	4.14	1.14	1.20	98.49
MW104	101.12	101.03	4.35	1.35	1.57	99.55
MW105	100.86	100.78	4.68	1.68	1.99	98.87

Note: Monitoring wells were surveyed for elevation relative to a temporary benchmark, in this case the catch basin located in the north-central area of the Site (assumed elevation 100.0 meters).

Based on the measured groundwater elevation data, groundwater flow at the Site appears to be to the east/southeast. Based on our observations and review, the expected direction of

groundwater flow in the immediate area of the Site is southeast, following surface topography towards Lake Ontario.

5.3 Soil Field Screening

In accordance with the scope of work, chemical analyses were performed by ALS on selected soil samples recovered from the boreholes. Representative “worst case” soil samples were selected based on visual or olfactory evidence of impacts and/or Site history as detailed in Table 5.3. The table below indicates the soil samples selected for laboratory analysis.

Table 5.3: Soil Sample Selection for Submission for Laboratory Analysis

Sample ID	Depth (m bgs)	Rationale for Submission	Analysis
BH101 SS1	0 – 0.6	Investigate potential contamination from AST, PHC odour, investigate fill quality	PHCs, BTEX, metals
BH101 SS3	1.5 – 2.1	Site Characterization – native material	Metals
BH101 SS5	3.0 – 3.6	Investigate potential contamination from on-Site activities, inferred groundwater table	PHCs, VOCs
BH102 SS1	0 – 0.3	Investigate fill quality	Metals
BH102 SS3	0.75 – 1.35	Investigate fill quality, surface soil (<1.5 m bgs)	PAHs, pH
BH102 SS5	2.25 – 2.85	Subsurface soil (>1.5 m bgs)	pH
BH102 SS6	3.0 – 3.6	Site characterization	Grain size
BH102 SS7	3.75 – 4.35	Investigate potential contamination from on-Site activities, highest vapour, inferred groundwater table	PHCs, VOCs
BH103 SS1	0 – 0.6	Investigate potential contamination from on-Site activities, investigate fill quality	PAHs, metals
BH103 SS3	1.5 – 2.1	Investigate potential contamination from on-Site activities.	Metals
BH103 SS6	3.75 – 4.35	Investigate potential contamination from on-Site activities, inferred groundwater table	PHCs, VOCs
BH104 SS1	0 – 0.6	Investigate fill quality	Metals
BH104 SS2	0.75 – 1.35	Investigate fill quality	PAHs
BH104 SS3	1.5 – 2.1	Site Characterization – native material	PAHs
BH104 SS4	2.25 – 2.85	Investigate potential contamination from off-Site activities, inferred groundwater table	PHCs, VOCs
BH105 SS2	0.75 – 1.35	Investigate fill quality	PAHs
BH105 SS3	1.5 – 2.1	Investigate potential contamination from off-Site activities, highest vapour, inferred groundwater table	PHCs, VOCs
BH121 SS3	1.5 – 2.1	Duplicate sample of BH101 SS3	Metals

Notes: PHCs - Petroleum Hydrocarbons Fractions F1-F4
VOCs - Volatile Organic Compounds

PAHs - Polycyclic Aromatic Hydrocarbons
AST - Aboveground Storage Tank

5.4 Soil Quality

The laboratory Certificate of Analysis for the soil samples submitted for analysis is included in Appendix D and tables summarizing the analytical results are included in Appendix C.

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

Soil samples BH101 SS1, BH101 SS5, BH102 SS7, BH103 SS6, BH104 SS4 and BH105 SS3 were submitted for analysis of petroleum hydrocarbons PHCs including BTEX. PHC fractions F2, F3, and F4G (Gravimetric Heavy Hydrocarbons) were detected in soil sample BH101 SS1 at 480, 3,440, and 13,200 µg/g, respectively, above the MECP Table 3 SCS of 250, 2,500, and 6,600 µg/g, respectively. PHC and BTEX parameters were either not detected or detected at concentrations below the MECP Table 3 SCS in the remainder of the soil samples submitted for analysis.

5.4.2 Volatile Organic Compounds (VOCs)

Soil samples BH101 SS5, BH102 SS7, BH103 SS6, BH104 SS4, and BH105 SS3 were submitted for analysis of VOCs. VOC parameters were not detected in the soil samples submitted for analysis.

5.4.3 Metals

Soil samples BH101 SS1, BH101 SS3, BH121 SS3 (duplicate sample of BH101 SS3), BH102 SS1, BH103 SS1, BH103 SS3 and BH104 SS1 were submitted for laboratory analysis of metals. Metals parameters were either not detected or were detected at levels below the MECP Table 3 SCS.

5.4.4 Polycyclic Aromatic Hydrocarbons (PAHs)

Soil samples BH102 SS3, BH103 SS1, BH104 SS2, BH104 SS3, and BH105 SS2 were submitted for laboratory analysis of PAHs. PAH parameters were either not detected or were detected at levels below the MECP Table 3 SCS.

5.5 Groundwater Quality

Groundwater samples were collected from monitoring wells MW101, MW102, MW104, and MW105 on August 28, 2019. Table 5.5 provides details of the groundwater samples collected and the chemical analyses performed.

Table 5.5: Groundwater Sample Submission

Sample/Monitoring Well ID	Date	Analysis
MW101	August 28, 2019	PHCs, VOCs, metals, PAHs
MW102		PHCs, VOCs, metals, PAHs
MW104		PHCs, VOCs, metals, PAHs
MW105		PHCs, VOCs, metals, PAHs

Notes: PHCs - Petroleum Hydrocarbons Fractions F1-F4 VOCs - Volatile Organic Compounds
PAHs - Polycyclic Aromatic Hydrocarbons

No sheen or odours were present in the purged groundwater from the monitoring wells.

Tables summarizing the analytical results are included in Appendix C, and the laboratory Certificate of Analysis for the groundwater samples submitted for analysis is included in Appendix D.

5.5.1 *PHCs*

Groundwater samples from monitoring wells MW101, MW102, MW104 and MW105 were submitted for laboratory analysis of PHCs. PHC parameters were not detected in the groundwater samples submitted for analysis.

5.5.2 *VOCs*

Groundwater samples from monitoring wells MW101, MW102, MW104 and MW105 were submitted for laboratory analysis of VOCs. VOC parameters were not detected in the groundwater samples submitted for analysis.

5.5.3 *Metals*

Groundwater samples from monitoring wells MW101, MW102, MW104 and MW105 were submitted for laboratory analysis of metals. Metals parameters were either not detected or were detected at levels below the MECP Table 3 SCS in the groundwater samples submitted for analysis.

5.5.4 *PAHs*

Groundwater samples from monitoring wells MW101, MW102, MW104 and MW105 were submitted for laboratory analysis of PAHs. PAH parameters were either not detected or were detected at levels below the MECP Table 3 SCS in the groundwater samples submitted for analysis.

5.6 **Quality Assurance/Quality Control Results**

ALS Environmental is 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. ALS’s overall quality control for the analysis meets their acceptability criteria.

Table 5.6: QA/QC Samples Submitted for Laboratory Analysis

Sample ID	Date	Matrix	Rationale for Submission	Analysis
BH121 SS3	September 14, 2018	Soil	Duplicate sample of BH101 SS3	Metals

In order to determine the reproducibility of the sampling and analytical results, the Relative Percent Difference (RPD) was calculated for a duplicate groundwater sample. The formula for RPD is:

$$\text{RPD} = \frac{\text{Difference between duplicate results}}{\text{Average of Duplicate results}} \times 100\%$$

All RPD values were below 20%, indicating acceptable reproducibility for the soil analysis. The overall quality of the field data from the investigation with respect to the data quality objectives demonstrated that the objectives of the investigation and the assessment were met.

6. Conclusions and Recommendations

The Phase Two ESA included the advancement of five boreholes on the property, four of which were completed as groundwater monitoring wells. The results of the investigation lead to the following findings:

1. Native material beneath the Site consists of silty sand and silty clay.
2. Groundwater was found in the monitoring wells between depths of 1.20 and 1.99 m below ground surface (bgs).
3. PHC fractions F2, F3, and F4G (Gravimetric Heavy Hydrocarbons) were above the MECP Table 3 SCS in soil sample BH101 SS1.
4. The concentrations of VOCs, metals, and PAHs were below the MECP Table 3 SCS in the analyzed soil samples.
5. The concentrations of PHCs, VOCs, metals, and PAHs in the groundwater in the areas tested meet the MECP Table 3 SCS.

Based on the results of the Phase Two ESA, the Site does not meet the MECP Table 3 SCS for Commercial/Industrial/Community Property Use with fine textured soil. PHC impacts were identified in surficial soil (0 – 0.6 m bgs) from borehole BH101, located in the vicinity of the diesel AST on-Site. It is likely that the impacts are limited to the shallow soil surrounding the AST as the soil sample collected from BH101 at a depth of 3.0 – 3.6 m bgs did not contain PHC parameters above the MECP Table 3 SCS.

The identified shallow PHC soil impacts are not anticipated to affect ongoing Site operations.

Should a Record of Site Condition (RSC) be required for the property, the identified soil impacts will need to be removed and further investigation would be required to satisfy the requirements of O.Reg. 153/04. RSCs are generally required with a change in land use, and in some instances, with an application for a building permit.

7. Qualifications of the Assessors

This Phase Two ESA was conducted by Ms. Jessica Boelhouwer, B.Sc. Ms. Boelhouwer is responsible for the successful completion of field work and the completion of reporting. Ms. Boelhouwer has completed numerous projects on behalf of private and public sector clients for industrial, commercial and residential sites.

This Phase Two ESA was reviewed by Mr. Geoff Bell, P. Geo. (limited). Mr. Bell has over 20 years of experience, including Phase One and Two ESAs, hazardous materials management, contaminant hydrogeology, air quality, environmental monitoring and remediation of contaminated sites. Mr. Bell is responsible for the overall management of projects, QA/QC, and health and safety, as well as acting as a technical lead on projects. Mr. Bell has managed numerous asbestos, designated substances and mould assessments, as well as remediation programs.

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"*, April 15, 2011.
- c) *"Soil, Groundwater and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act"*, dated July 27, 2009.
- d) The Ontario Water Resources Act – R.R.O. 1990, Regulation 903 – Amended to O. Reg. 128/03, August 2003.
- e) *"Protocol for Analytical Methods Used in the Assessment of Properties Under Part XV.1 of the Environmental Protection Act"*, March 2004.
- f) *"Ontario Regulation 153/04 (made under the Environmental Protection Act)"*, May 2004 (MOE).
- g) *"Z769-00, Phase II Environmental Site Assessment,"* Canadian Standard Association, March 2000.
- h) *"Environmental Protection Act, R.S.O. 1990, Chapter E.19,"* as amended, September 2004.
- i) Singer SN, Cheng CK, Scafe MG. (2003). *The Hydrogeology of Southern Ontario, Second Edition*, Report from the Ontario Ministry of the Environment.
- j) *"Paleozoic Geology of Southern Ontario"*, Ontario Division of Mines, Map 2254. Scale 1:1,013,760. Published 1972.
- k) *"Soil Map of Halton County, Ontario,"* Soil Survey Report No. 43. Scale 1:63,360. Soil Research Institute, Research Branch, Canada Department of Agriculture, Ottawa, 1977.
- l) *"Phase One Environmental Site Assessment, 580 Hazelhurst Road, Mississauga, Ontario,"* prepared for Empire Communities Corp. by G2S Environmental Consulting Inc., dated September 3, 2019.

9. Limitations

This report has been prepared for the sole benefit of 2715623 Ontario Inc. and is intended to provide information on the subsurface environmental conditions at 580 Hazelhurst Road in Mississauga, Ontario. The report may not be used by any other person or entity without the expressed written consent of 2715623 Ontario Inc. and G2S Environmental 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 (August 2019) 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 Environmental Consulting Inc.



Jessica Boelhouwer, B.Sc.
Environmental Technician

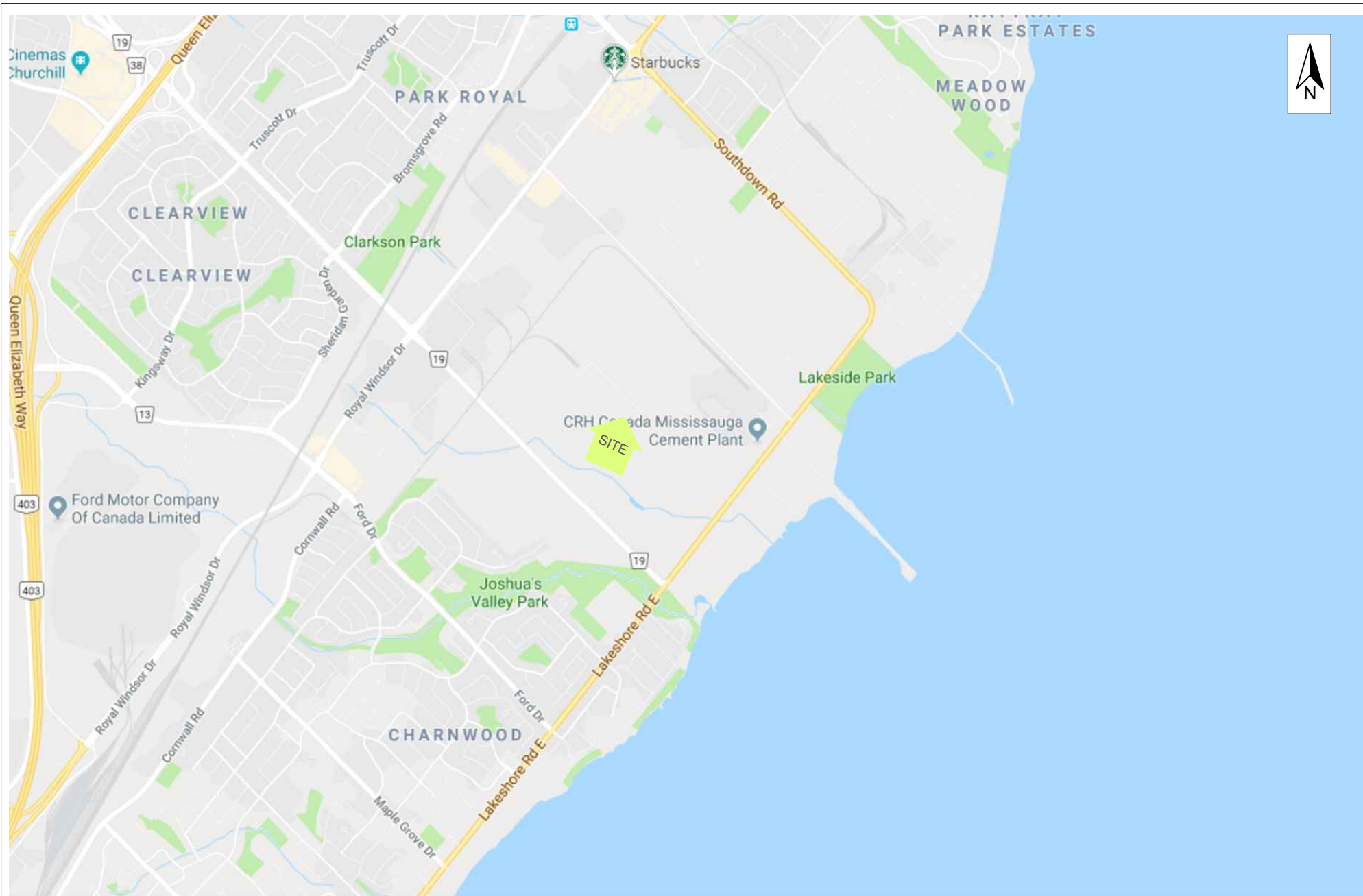


Geoff Bell, P. Geo. (limited)
Senior Project Manager



Dana Haslett, B.A.
Project Manager

Appendix A: Drawings



Scale: N.T.S.
 Project No.: G2S19650B
 Date: AUG. 21, 2019
 Drawn by: JB/GB
 File name: 580HAZELHURST.dwg

SITE LOCATION PLAN 580 HAZELHURST ROAD

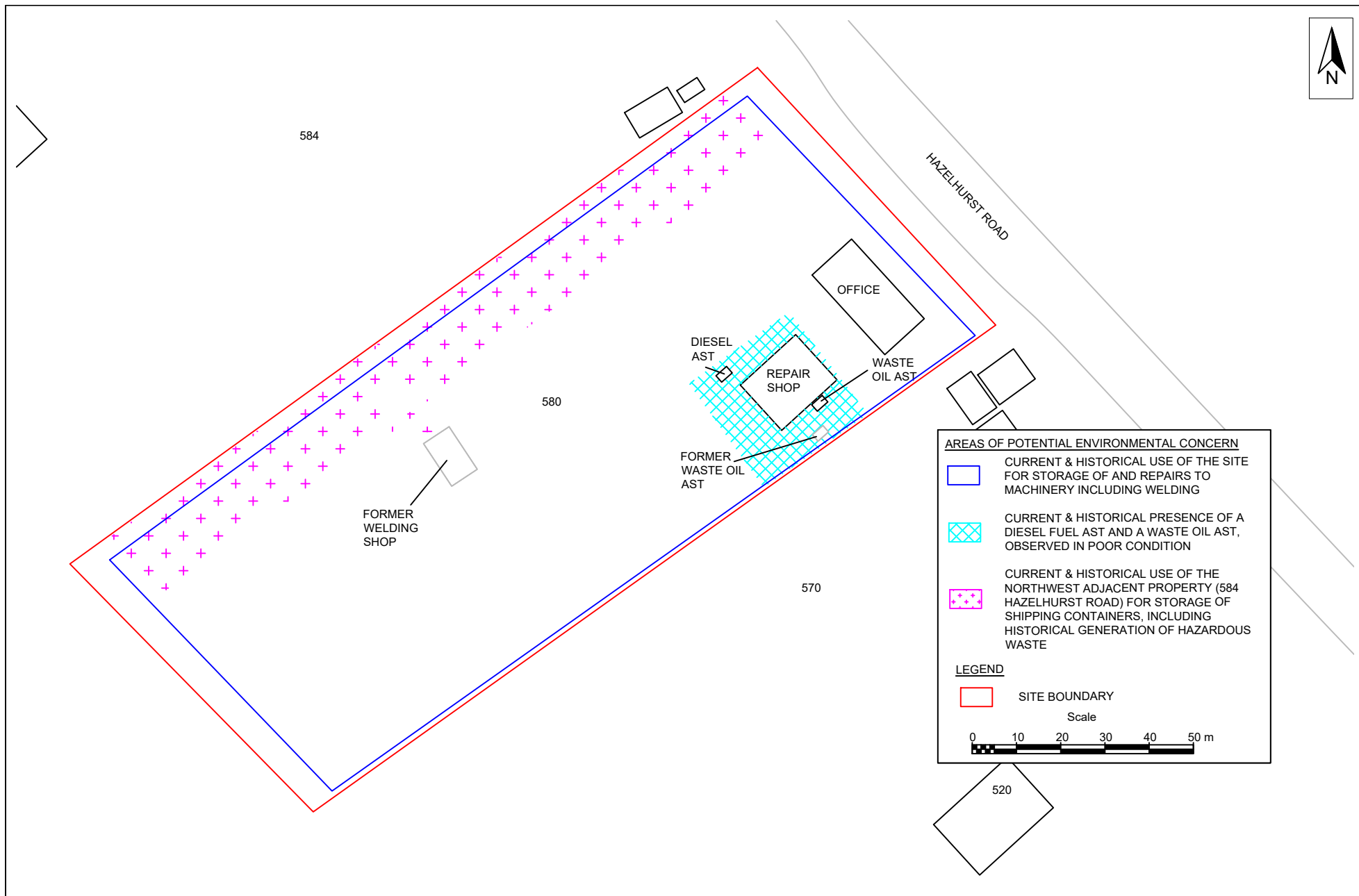
MISSISSAUGA

ONTARIO



Drawing No.

1



Scale: AS SHOWN
 Project No.: G2S19650
 Date: AUG. 28, 2019
 Drawn by: JB/GB
 File name: 580HAZELHURST.dwg

AREAS OF POTENTIAL ENVIRONMENTAL CONCERN 580 HAZELHURST ROAD

MISSISSAUGA

ONTARIO



Drawing No.

2



Scale: AS SHOWN
 Project No.: G2S19650B
 Date: AUG. 28, 2019
 Drawn by: JB/GB
 File name: 580HAZELHURST.dwg

BOREHOLE AND MONITORING WELL LOCATION PLAN 580 HAZELHURST ROAD

MISSISSAUGA

ONTARIO



Drawing No.

3

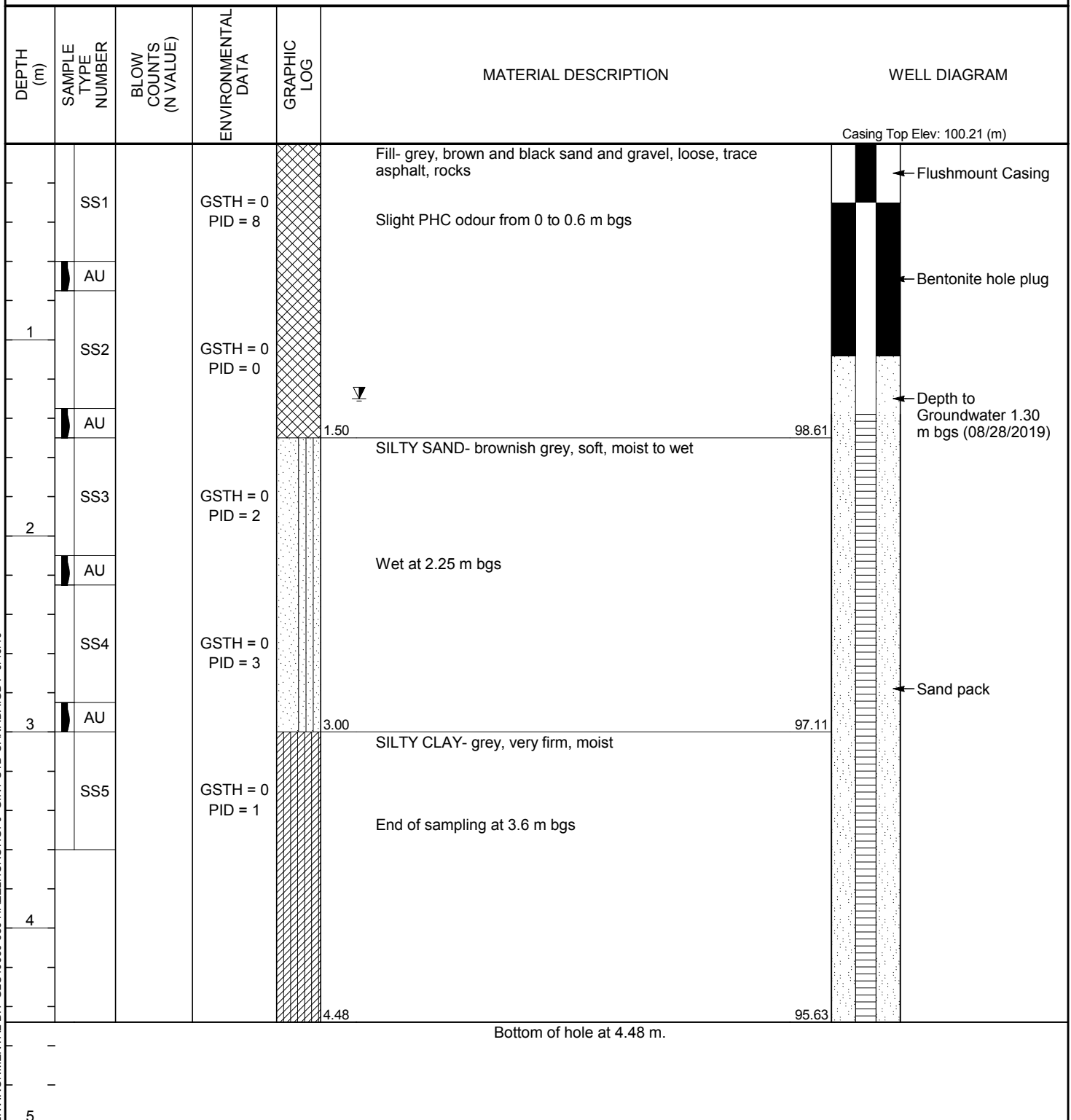
Appendix B: Borehole Logs

**BOREHOLE NUMBER BH/MW101**

PAGE 1 OF 1

CLIENT _____
PROJECT NUMBER G2S19650
DATE STARTED 8/24/19 **COMPLETED** 8/24/19
DRILLING CONTRACTOR Tri-Phase
DRILLING METHOD Hollow Stem Augers/Split Spoon Samplers
LOGGED BY JB **CHECKED BY** SC
NOTES Vapour Measurements in ppm

PROJECT NAME Phase Two ESA
PROJECT LOCATION 580 Hazelhurst Road
GROUND ELEVATION 100.11 m **HOLE SIZE** 15 cm
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING ---
AFTER DRILLING 1.30 m / Elev 98.81 m



ENVIRONMENTAL BH G2S19650-580 HAZELHURST.GPJ GINT STD CANADA.GDT 9/10/19

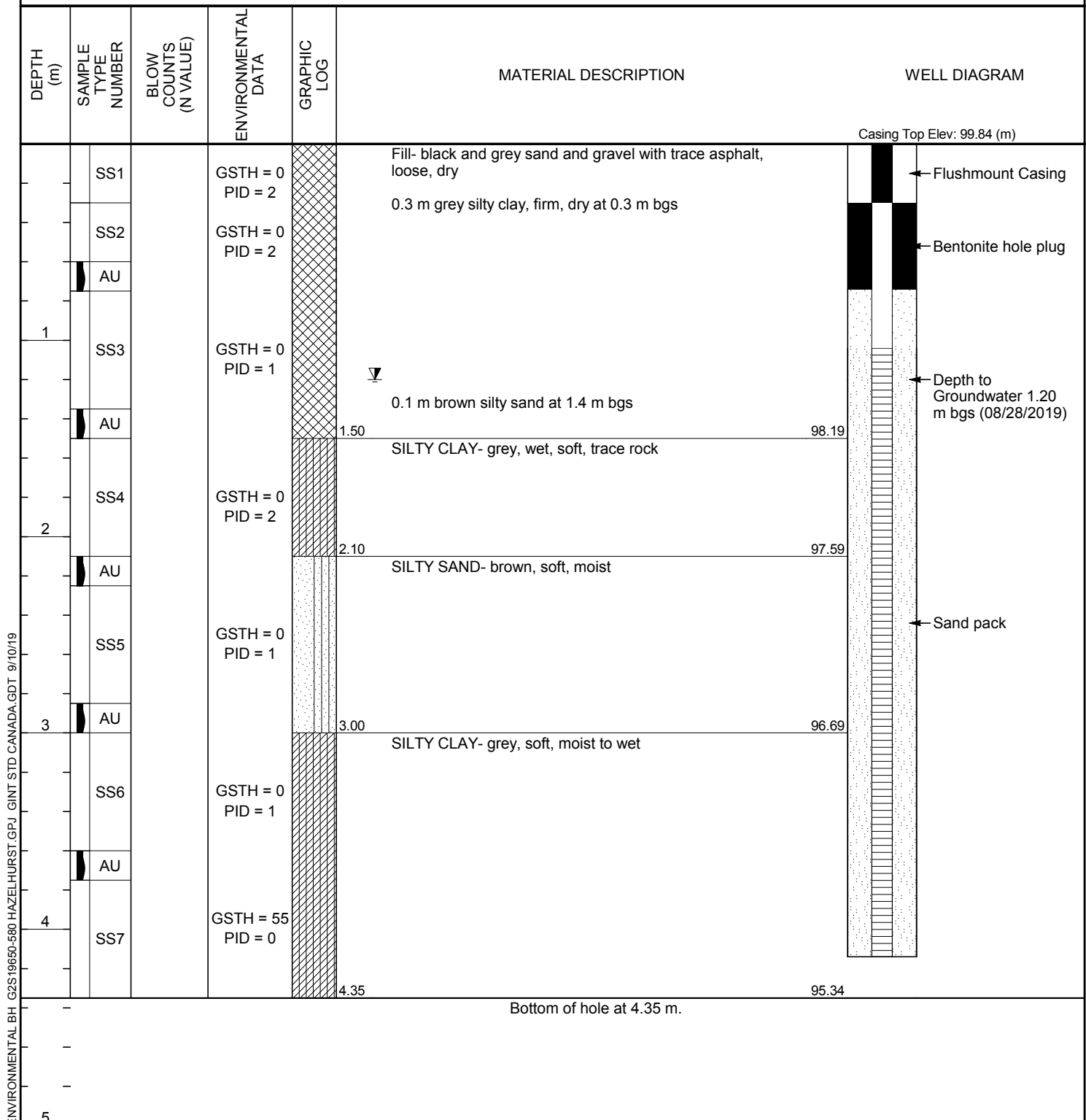
**BOREHOLE NUMBER BH/MW102**

PAGE 1 OF 1

CLIENT _____

PROJECT NAME Phase Two ESAPROJECT NUMBER G2S19650PROJECT LOCATION 580 Hazelhurst RoadDATE STARTED 8/24/19 COMPLETED 8/24/19GROUND ELEVATION 99.69 m HOLE SIZE 15 cmDRILLING CONTRACTOR Tri-Phase

GROUND WATER LEVELS:

DRILLING METHOD Hollow Stem Augers/Split Spoon SamplersAT TIME OF DRILLING ---LOGGED BY JB CHECKED BY SCAT END OF DRILLING ---NOTES Vapour Measurements in ppm▼ AFTER DRILLING 1.20 m / Elev 98.49 m

**BOREHOLE NUMBER BH103**

PAGE 1 OF 1

CLIENT _____

PROJECT NAME Phase Two ESAPROJECT NUMBER G2S19650PROJECT LOCATION 580 Hazelhurst RoadDATE STARTED 8/24/19 COMPLETED 8/24/19GROUND ELEVATION _____ HOLE SIZE 10 cmDRILLING CONTRACTOR Tri-Phase

GROUND WATER LEVELS:

DRILLING METHOD Hollow Stem Augers/Split Spoon SamplersAT TIME OF DRILLING ---LOGGED BY JB CHECKED BY SCAT END OF DRILLING ---NOTES Vapour Measurements in ppmAFTER DRILLING ---

DEPTH (m)	SAMPLE TYPE NUMBER	ENVIRONMENTAL DATA	GRAPHIC LOG	MATERIAL DESCRIPTION	
	SS1	GSTH = 0 PID = 2		Fill- grey, brown and black sand and gravel, loose, trace asphalt and rock	
	AU				
1	SS2	GSTH = 0 PID = 4		Trace grey silty clay from 0.75 to 1.5 m bgs	
	AU				
			1.50		
	SS3	GSTH = 0 PID = 0		SILTY CLAY- grey, trace rock and sand, moist to wet, firm	
2	AU				
	SS4	GSTH = 0 PID = 0		Trace wood at 2.25 m bgs	
	AU				
3					
	SS5	GSTH = 0 PID = 0		Soft at 3.0 m bgs	
	AU				
4	SS6	GSTH = 0 PID = 0			
			4.35		
				Bottom of hole at 4.35 m.	
5					

TEST PIT LOG G2S19650-580 HAZELHURST - BH103.GPJ GINT STD CANADA.GDT 9/10/19

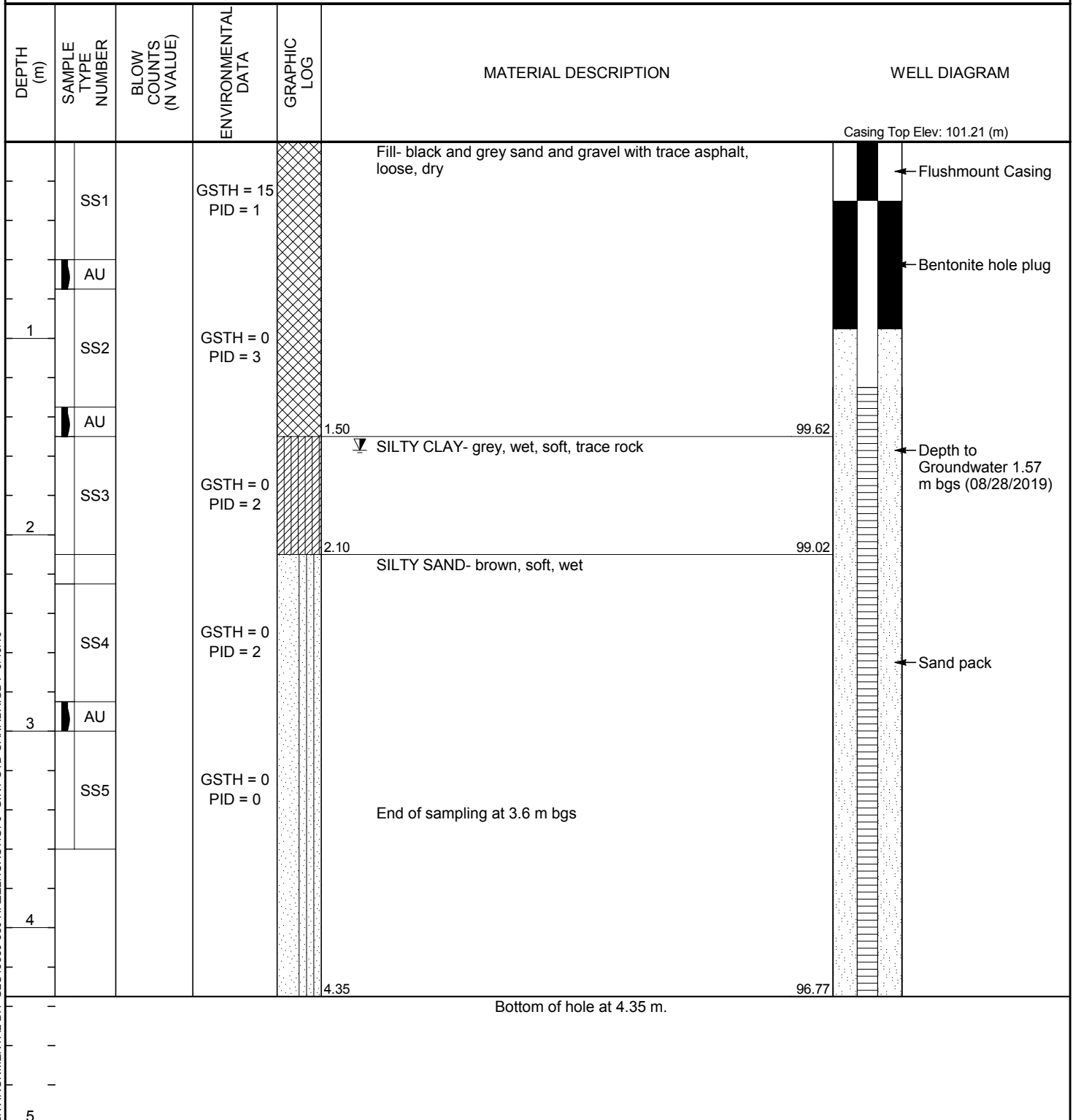


BOREHOLE NUMBER BH/MW104

PAGE 1 OF 1

CLIENT _____
PROJECT NUMBER G2S19650
DATE STARTED 8/24/19 COMPLETED 8/24/19
DRILLING CONTRACTOR Tri-Phase
DRILLING METHOD Hollow Stem Augers/Split Spoon Samplers
LOGGED BY JB CHECKED BY SC
NOTES Vapour Measurements in ppm

PROJECT NAME Phase Two ESA
PROJECT LOCATION 580 Hazelhurst Road
GROUND ELEVATION 101.12 m HOLE SIZE 15 cm
GROUND WATER LEVELS:
AT TIME OF DRILLING ---
AT END OF DRILLING ---
AFTER DRILLING 1.57 m / Elev 99.55 m



ENVIRONMENTAL BH G2S19650-580 HAZELHURST.GPJ GINT STD CANADA.GDT 9/10/19

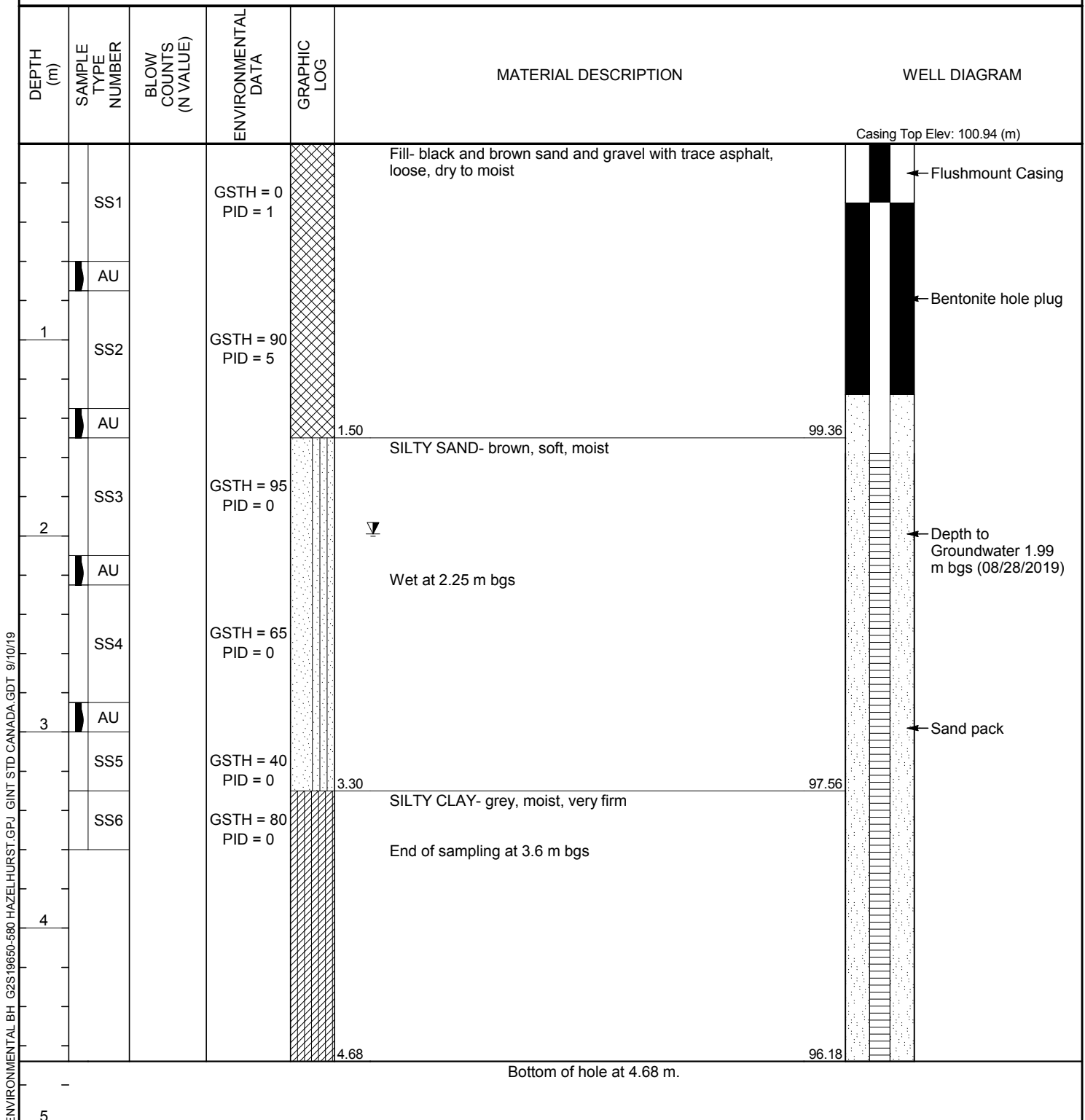
**BOREHOLE NUMBER BH/MW105**

PAGE 1 OF 1

CLIENT _____

PROJECT NAME Phase Two ESAPROJECT NUMBER G2S19650PROJECT LOCATION 580 Hazelhurst RoadDATE STARTED 8/24/19 COMPLETED 8/24/19GROUND ELEVATION 100.86 m HOLE SIZE 15 cmDRILLING CONTRACTOR Tri-Phase

GROUND WATER LEVELS:

DRILLING METHOD Hollow Stem Augers/Split Spoon SamplersAT TIME OF DRILLING ---LOGGED BY JB CHECKED BY SCAT END OF DRILLING ---NOTES Vapour Measurements in ppm▼ AFTER DRILLING 1.99 m / Elev 98.87 m

Appendix C: Analytical Results Tables

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

Parameter	Unit	Table 3 SCS Industrial/Commercial/Community Property Use Fine Grained	Sample Identification					
			BH101 SS1	BH101 SS5	BH102 SS7	BH103 SS6	BH104 SS4	BH105 SS3
Date Sampled			24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19
Depth			0 - 0.6	3.0 - 3.6	3.75 - 4.35	3.75 - 4.35	2.25 - 2.85	1.5 - 2.1
Benzene	ug/g	0.4	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Ethylbenzene	ug/g	19	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
Toluene	ug/g	78	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Xylenes (total)	ug/g	30	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Petroleum Hydrocarbons F1	ug/g	65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Petroleum Hydrocarbons F2	ug/g	250	480	16	<10	<10	<10	<10
Petroleum Hydrocarbons F3	ug/g	2500	3440	62	71	<50	<50	<50
Petroleum Hydrocarbons F4	ug/g	6600	13200	<50	<50	<50	<50	74

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

Bold and shaded: Value exceeds MECP Table 3 Site Condition Standard

**Table 2: Soil Quality Results
Volatile Organic Compounds**

Parameter	Unit	Table 3 SCS Industrial/Commercial/ Community Property Use - Fine Grained	Sample Identification				
			BH101 SS5	BH102 SS7	BH103 SS6	BH104 SS4	BH105 SS3
Date Sampled			24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19
Depth			3.0 - 3.6	3.75 - 4.35	3.75 - 4.35	2.25 - 2.85	1.5 - 2.1
Acetone	µg/g	28	<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	µg/g	0.4	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	µg/g	18	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	µg/g	1.7	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	µg/g	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	µg/g	1.5	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	µg/g	2.7	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	µg/g	13	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	µg/g	0.18	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dibromoethane	µg/g	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	µg/g	8.5	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	µg/g	12	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	µg/g	0.84	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	µg/g	25	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	µg/g	21	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloroethane	µg/g	0.05	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	µg/g	0.48	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	µg/g	37	<0.050	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	µg/g	9.3	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	µg/g	2	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	µg/g	0.68	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichloropropane (cis & trans)	µg/g	0.21	<0.042	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	µg/g	19	<0.018	<0.018	<0.018	<0.018	<0.018
n-Hexane	µg/g	88	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	µg/g	88	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	µg/g	210	<0.50	<0.50	<0.50	<0.50	<0.50
MTBE	µg/g	3.2	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	µg/g	43	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,1,2-Tetrachloroethane	µg/g	0.11	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	µg/g	0.094	<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene	µg/g	21	<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	µg/g	78	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	µg/g	12	<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	µg/g	0.11	<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	µg/g	0.61	<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	µg/g	5.8	<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	µg/g	0.25	<0.020	<0.020	<0.020	<0.020	<0.020
Xylenes (Total)	µg/g	30	<0.050	<0.050	<0.050	<0.050	<0.050

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

Table 3: Soil Quality Results
Metals

Parameter	Unit	Table 3 SCS Industrial/Commercial/ Community Property Use Fine Grained	Sample Identification						
			BH101 SS1	BH101 SS3	BH121 SS3	BH102 SS1	BH103 SS1	BH103 SS3	BH104 SS1
Date Sampled			24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19
Depth (m)			0 - 0.6	1.5 - 2.1	1.5 - 2.1	0 - 0.3	0 - 0.6	1.5 - 2.1	0 - 0.6
Antimony (Sb)	ug/g	50	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0
Arsenic (As)	ug/g	18	2.9	2.4	1.7	4.9	6.9	6.3	4
Barium (Ba)	ug/g	670	22.8	11.2	11.1	44.6	35.8	56.9	36.3
Beryllium (Be)	ug/g	10	<0.50	<0.50	<0.50	0.54	<0.50	1.01	<0.50
Boron (B)	ug/g	120	8.1	<5.0	<5.0	11.2	7.6	19.1	8.5
Cadmium (Cd)	ug/g	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	160	11.5	5.7	6.8	30.8	20.4	26.7	18.2
Cobalt (Co)	ug/g	100	3.8	3.7	2.9	8.7	4.1	13.8	6.8
Copper (Cu)	ug/g	300	24.8	15.4	11	45.4	24.4	39.9	29.9
Lead (Pb)	ug/g	120	35.5	4.1	3.2	27.7	55.7	8.7	25.4
Molybdenum (Mo)	ug/g	40	1.2	<1.0	<1.0	2.8	4.6	<1.0	1.7
Nickel (Ni)	ug/g	340	10.8	6.4	5.4	26.5	53.2	31.3	17.2
Selenium (Se)	ug/g	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	50	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Uranium	ug/g	33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	19.1	11.5	13.9	31	32.5	37.8	36.5
Zinc (Zn)	ug/g	340	102	14.7	12.5	129	179	70.6	101

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

**Table 4: Soil Quality Results
Polycyclic Aromatic Hydrocarbons (PAH)**

Parameter	Unit	Table 3 SCS Industrial/Commercial /Community Property Use Fine Grained	Sample Identification				
			BH102 SS3	BH103 SS1	BH104 SS2	BH104 SS3	BH105 SS2
Date Sampled			24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19	24-Aug-19
Depth (m)			0.75 - 1.35	0 - 0.6	0.75 - 1.35	1.5 - 2.1	0.75 - 1.35
Acenaphthene	ug/g	96	<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.17	<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.74	<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	0.06	0.055	0.113	<0.050	0.166
Benzo(a)pyrene	ug/g	0.3	0.099	0.078	0.142	0.055	0.197
Benzo(b)fluoranthene	ug/g	0.96	0.141	0.107	0.186	0.08	0.256
Benzo(g,h,i)perylene	ug/g	9.6	0.266	0.271	0.24	0.129	0.217
Benzo(k)fluoranthene	ug/g	0.96	<0.050	<0.050	<0.050	<0.050	0.072
Chrysene	ug/g	9.6	0.163	0.163	0.233	0.066	0.35
Dibenzo(ah)anthracene	ug/g	0.1	<0.050	<0.050	<0.050	<0.050	0.058
Fluoranthene	ug/g	9.6	0.089	0.079	0.201	0.061	0.356
Fluorene	ug/g	69	<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.95	0.095	0.091	0.101	0.054	0.107
1+2-Methylnaphthalenes	ug/g	85	<0.085	<0.085	<0.042	<0.085	<0.042
1-Methylnaphthalene	ug/g	85	<0.060	<0.060	<0.030	<0.060	<0.030
2-Methylnaphthalene	ug/g	85	<0.060	<0.060	<0.030	<0.060	<0.030
Naphthalene	ug/g	28	<0.065	<0.065	0.025	<0.065	<0.013
Phenanthrene	ug/g	16	0.051	<0.046	0.104	0.06	0.188
Pyrene	ug/g	96	0.176	0.107	0.218	0.089	0.355

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

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

Parameter	Unit	Table 3 SCS All Types of Property Use - Fine Grained	Sample Identification			
			MW101	MW102	MW104	MW105
Date Sampled			28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
Benzene	µg/L	430	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2300	<0.50	<0.50	<0.50	<0.50
Toluene	µg/L	18000	<0.50	<0.50	<0.50	<0.50
Xylenes	µg/L	4200	<0.50	<0.50	<0.50	<0.50
Petroleum Hydrocarbons F1	µg/L	750	<25	<25	<25	<25
Petroleum Hydrocarbons F2	µg/L	150	<100	<100	<100	<100
Petroleum Hydrocarbons F3	µg/L	500	<250	<250	<250	<250
Petroleum Hydrocarbons F4	µg/L	500	<250	<250	<250	<250

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

**Table 6: Groundwater Quality Results
Volatile Organic Compounds**

Parameter	Unit	Table 3 SCS All Types of Property Use - Fine Grained	Sample Identification			
			MW101	MW102	MW104	MW105
Date Sampled			28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
Acetone	µg/L	130000	<30	<30	<30	<30
Benzene	µg/L	430	<0.50	<0.50	<0.50	<0.50
Bromodichloromethane	µg/L	85000	<2.0	<2.0	<2.0	<2.0
Bromoform	µg/L	770	<5.0	<5.0	<5.0	<5.0
Bromomethane	µg/L	56	<0.50	<0.50	<0.50	<0.50
Carbon tetrachloride	µg/L	8.4	<0.20	<0.20	<0.20	<0.20
Chlorobenzene	µg/L	630	<0.50	<0.50	<0.50	<0.50
Dibromochloromethane	µg/L	82000	<2.0	<2.0	<2.0	<2.0
Chloroform	µg/L	22	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane	µg/L	0.83	<0.20	<0.20	<0.20	<0.20
1,2-Dichlorobenzene	µg/L	9600	<0.50	<0.50	<0.50	<0.50
1,3-Dichlorobenzene	µg/L	9600	<0.50	<0.50	<0.50	<0.50
1,4-Dichlorobenzene	µg/L	67	<0.50	<0.50	<0.50	<0.50
Dichlorodifluoromethane	µg/L	4400	<2.0	<2.0	<2.0	<2.0
1,1-Dichloroethane	µg/L	3100	<0.50	<0.50	<0.50	<0.50
1,2-Dichloroethane	µg/L	12	<0.50	<0.50	<0.50	<0.50
1,1-Dichloroethylene	µg/L	17	<0.50	<0.50	<0.50	<0.50
cis-1,2-Dichloroethylene	µg/L	17	<0.50	<0.50	<0.50	<0.50
trans-1,2-Dichloroethylene	µg/L	17	<0.50	<0.50	<0.50	<0.50
Methylene Chloride	µg/L	5500	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	µg/L	140	<0.50	<0.50	<0.50	<0.50
1,3-Dichloropropene (cis & trans)	µg/L	45	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	µg/L	2300	<0.50	<0.50	<0.50	<0.50
n-Hexane	µg/L	520	<0.50	<0.50	<0.50	<0.50
Methyl Ethyl Ketone	µg/L	1500000	<20	<20	<20	<20
Methyl Isobutyl Ketone	µg/L	580000	<20	<20	<20	<20
MTBE	µg/L	1400	<2.0	<2.0	<2.0	<2.0
Styrene	µg/L	9100	<0.50	<0.50	<0.50	<0.50
1,1,1,2-Tetrachloroethane	µg/L	28	<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	µg/L	15	<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	µg/L	17	<0.50	<0.50	<0.50	<0.50
Toluene	µg/L	18000	<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	µg/L	6700	<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	µg/L	30	<0.50	<0.50	<0.50	<0.50
Trichloroethylene	µg/L	17	<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	µg/L	2500	<5.0	<5.0	<5.0	<5.0
Vinyl chloride	µg/L	1.7	<0.50	<0.50	<0.50	<0.50
Xylenes (Total)	µg/L	4200	<0.50	<0.50	<0.50	<0.50

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act , dated April 2011.

Table 7: Groundwater Quality Results
Metals

Parameter	Unit	Table 3 SCS All Types of Property Use - Fine Grained	Sample Identification			
			MW101	MW102	MW104	MW105
Date Sampled			28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
Antimony	µg/L	20000	<1.0	<1.0	<1.0	<1.0
Arsenic	µg/L	1900	1	1.6	<1.0	<1.0
Barium	µg/L	29000	146	199	129	65.6
Beryllium	µg/L	67	<1.0	<1.0	<1.0	<1.0
Boron	µg/L	45000	490	320	190	240
Cadmium	µg/L	2.7	<0.050	<0.050	<0.050	<0.050
Chromium	µg/L	810	<5.0	<5.0	<5.0	<5.0
Cobalt	µg/L	66	<1.0	1.2	<1.0	1.2
Copper	µg/L	87	2.8	<2.0	2.7	2.1
Lead	µg/L	25	<0.50	<0.50	<0.50	<0.50
Molybdenum	µg/L	9200	3.21	4.13	3.94	1.71
Nickel	µg/L	490	<5.0	<5.0	<5.0	<5.0
Selenium	µg/L	63	0.87	0.66	<0.50	<0.50
Silver	µg/L	1.5	<0.50	<0.50	<0.50	<0.50
Sodium	µg/L	2300000	87400	78000	67100	110000
Thallium	µg/L	510	<0.10	<0.10	<0.10	<0.10
Uranium	µg/L	420	3.41	2.94	2.69	1.02
Vanadium	µg/L	250	<5.0	<5.0	<5.0	<5.0
Zinc	µg/L	1100	<10	<10	<10	<10

MECPS Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

**Table 8: Groundwater Quality Results
PAHs**

Parameter	Unit	Table 3 SCS All Types of Property Use - Fine Grained	Sample Identification			
			MW101	MW102	MW104	MW105
Date Sampled			28-Aug-19	28-Aug-19	28-Aug-19	28-Aug-19
Acenaphthene	µg/L	1700	<0.020	<0.020	<0.020	<0.020
Acenaphthylene	µg/L	1.8	<0.020	<0.020	<0.020	<0.020
Anthracene	µg/L	2.4	<0.020	<0.020	<0.020	0.02
Benzo(a)anthracene	µg/L	4.7	<0.020	<0.020	<0.020	0.075
Benzo(a)pyrene	µg/L	0.81	<0.010	<0.010	<0.010	0.069
Benzo(b)fluoranthene	µg/L	0.75	<0.020	<0.020	<0.020	0.08
Benzo(g,h,i)perylene	µg/L	0.2	<0.020	<0.020	<0.020	0.053
Benzo(k)fluoranthene	µg/L	0.4	<0.020	<0.020	<0.020	0.029
Chrysene	µg/L	1	<0.020	<0.020	<0.020	0.064
Dibenzo(ah)anthracene	µg/L	0.52	<0.020	<0.020	<0.020	<0.020
Fluoranthene	µg/L	130	<0.020	<0.020	0.024	0.138
Fluorene	µg/L	400	<0.020	<0.020	<0.020	<0.020
Indeno(1,2,3-cd)pyrene	µg/L	0.2	<0.020	<0.020	<0.020	0.049
1+2-Methylnaphthalenes	µg/L	1800	<0.028	<0.028	<0.028	<0.028
1-Methylnaphthalene	µg/L	1800	<0.020	<0.020	<0.020	<0.020
2-Methylnaphthalene	µg/L	1800	<0.020	<0.020	<0.020	<0.020
Naphthalene	µg/L	6400	<0.050	<0.050	<0.050	<0.050
Phenanthrene	µg/L	580	0.02	<0.020	0.02	0.067
Pyrene	µg/L	68	<0.020	<0.020	0.027	0.133

MECP Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act, dated April 2011.

Appendix D: Certificates of Analysis



G2S ENVIRONMENTAL CONSULTING, INC.
ATTN: JESSICA BOELHOUWER
37 SANDIFORD DRIVE
SUITE 411
STOUFFVILLE ON L4A7X5

Date Received: 27-AUG-19
Report Date: 05-SEP-19 12:45 (MT)
Version: FINAL

Client Phone: 905-766-4054

Certificate of Analysis

Lab Work Order #: L2336967
Project P.O. #: HAZELHURST
Job Reference: G2S19650
C of C Numbers:
Legal Site Desc:

Joshua Scott
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 - T3-Soil-Ind/Com/Commu. Property Use (Coarse)							
L2336967-1	BH101 SS1	Hydrocarbons	F2 (C10-C16)	480	230	ug/g	
			F3 (C16-C34)	3440	1700	ug/g	
			F4 (C34-C50)	5560	3300	ug/g	
			F4G-SG (GHH-Silica)	13200	3300	ug/g	
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Soil-Ind/Com/Commu. Property Use (Fine)							
L2336967-1	BH101 SS1	Hydrocarbons	F2 (C10-C16)	480	250	ug/g	
			F3 (C16-C34)	3440	2500	ug/g	
			F4G-SG (GHH-Silica)	13200	6600	ug/g	

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

Physical Tests - SOIL

		Lab ID	L2336967-1	L2336967-4	L2336967-6	L2336967-7	L2336967-9	L2336967-10	L2336967-12	L2336967-14	L2336967-15	
		Sample Date	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	
		Sample ID	BH101 SS1	BH101 SS5	BH102 SS3	BH102 SS5	BH102 SS7	BH103 SS1	BH103 SS6	BH104 SS2	BH104 SS3	
Analyte	Unit	Guide Limits										
		#1	#2									
% Moisture	%	-	-	5.14	12.2	6.49		14.3	9.00	15.9	6.05	13.2
pH	pH units	-	-			7.62	7.86					

Guide Limit #1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)
Guide Limit #2: T3-Soil-Ind/Com/Commu. Property Use (Fine)

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.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

Physical Tests - SOIL

		Lab ID	L2336967-16	L2336967-17	L2336967-18
		Sample Date	24-AUG-19	24-AUG-19	24-AUG-19
		Sample ID	BH104 SS4	BH105 SS2	BH105 SS3
Analyte	Unit	Guide Limits			
		#1	#2		
% Moisture	%	-	-	13.8	12.8 21.6
pH	pH units	-	-		

Guide Limit #1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)
Guide Limit #2: T3-Soil-Ind/Com/Commu. Property Use (Fine)

 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.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

Environmental

Particle Size - SOIL

Lab ID L2336967-8
Sample Date 24-AUG-19
Sample ID BH102 SS6

Guide Limits
#1 #2

Analyte

Unit

Analyte	Unit	#1	#2	
% >75um	%	-	-	21.6

Guide Limit #1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Commu. Property Use (Fine)

 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

Metals - SOIL

Analyte	Unit	Guide Limits		Lab ID							
		#1	#2	Sample Date							
				Sample ID							
				L2336967-1	L2336967-2	L2336967-3	L2336967-5	L2336967-10	L2336967-11	L2336967-13	
				24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	
				BH101 SS1	BH101 SS3	BH121 SS3	BH102 SS1	BH103 SS1	BH103 SS3	BH104 SS1	
Antimony (Sb)	ug/g	40	50	<1.0	<1.0	<1.0	<1.0	1.4	<1.0	<1.0	
Arsenic (As)	ug/g	18	18	2.9	2.4	1.7	4.9	6.9	6.3	4.0	
Barium (Ba)	ug/g	670	670	22.8	11.2	11.1	44.6	35.8	56.9	36.3	
Beryllium (Be)	ug/g	8	10	<0.50	<0.50	<0.50	0.54	<0.50	1.01	<0.50	
Boron (B)	ug/g	120	120	8.1	<5.0	<5.0	11.2	7.6	19.1	8.5	
Cadmium (Cd)	ug/g	1.9	1.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Chromium (Cr)	ug/g	160	160	11.5	5.7	6.8	30.8	20.4	26.7	18.2	
Cobalt (Co)	ug/g	80	100	3.8	3.7	2.9	8.7	4.1	13.8	6.8	
Copper (Cu)	ug/g	230	300	24.8	15.4	11.0	45.4	24.4	39.9	29.9	
Lead (Pb)	ug/g	120	120	35.5	4.1	3.2	27.7	55.7	8.7	25.4	
Molybdenum (Mo)	ug/g	40	40	1.2	<1.0	<1.0	2.8	4.6	<1.0	1.7	
Nickel (Ni)	ug/g	270	340	10.8	6.4	5.4	26.5	53.2	31.3	17.2	
Selenium (Se)	ug/g	5.5	5.5	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Silver (Ag)	ug/g	40	50	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
Thallium (Tl)	ug/g	3.3	3.3	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
Uranium (U)	ug/g	33	33	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Vanadium (V)	ug/g	86	86	19.1	11.5	13.9	31.0	32.5	37.8	36.5	
Zinc (Zn)	ug/g	340	340	102	14.7	12.5	129	179	70.6	101	

Guide Limit #1: T3-Soil-Ind/Com/Comm. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Comm. Property Use (Fine)

 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	Sample Date	Sample ID	L2336967-1	L2336967-4	L2336967-9	L2336967-12	L2336967-16	L2336967-18
		#1	#2				24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19
							BH101 SS1	BH101 SS5	BH102 SS7	BH103 SS6	BH104 SS4	BH105 SS3
Acetone	ug/g	16	28					<0.50	<0.50	<0.50	<0.50	<0.50
Benzene	ug/g	0.32	0.4	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068
Bromodichloromethane	ug/g	18	18		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromoform	ug/g	0.61	1.7		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Bromomethane	ug/g	0.05	0.05		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Carbon tetrachloride	ug/g	0.21	1.5		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chlorobenzene	ug/g	2.4	2.7		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dibromochloromethane	ug/g	13	13		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Chloroform	ug/g	0.47	0.18		<0.050	<0.050	<0.050	<0.050	<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	<0.050	<0.050	<0.050	<0.050
1,2-Dichlorobenzene	ug/g	6.8	8.5		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,3-Dichlorobenzene	ug/g	9.6	12		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,4-Dichlorobenzene	ug/g	0.2	0.84		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Dichlorodifluoromethane	ug/g	16	25		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethane	ug/g	17	21		<0.050	<0.050	<0.050	<0.050	<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	<0.050	<0.050	<0.050	<0.050
1,1-Dichloroethylene	ug/g	0.064	0.48		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,2-Dichloroethylene	ug/g	55	37		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
trans-1,2-Dichloroethylene	ug/g	1.3	9.3		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methylene Chloride	ug/g	1.6	2		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
1,2-Dichloropropane	ug/g	0.16	0.68		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
cis-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
trans-1,3-Dichloropropene	ug/g	-	-		<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
1,3-Dichloropropene (cis & trans)	ug/g	0.18	0.21		<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042
Ethylbenzene	ug/g	9.5	19	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018
n-Hexane	ug/g	46	88		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Methyl Ethyl Ketone	ug/g	70	88		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
Methyl Isobutyl Ketone	ug/g	31	210		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MTBE	ug/g	11	3.2		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Styrene	ug/g	34	43		<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050

Guide Limit #1: T3-Soil-Ind/Com/Comm. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Comm. Property Use (Fine)

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

L2336967 CONT'D....

Job Reference: G2S19650

PAGE 8 of 13

05-SEP-19 12:45 (MT)

Volatile Organic Compounds - SOIL

Analyte	Unit	Guide Limits		Lab ID	L2336967-1	L2336967-4	L2336967-9	L2336967-12	L2336967-16	L2336967-18
		#1	#2	Sample Date	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19
				Sample ID	BH101 SS1	BH101 SS5	BH102 SS7	BH103 SS6	BH104 SS4	BH105 SS3
1,1,1,2-Tetrachloroethane	ug/g	0.087	0.11			<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2,2-Tetrachloroethane	ug/g	0.05	0.094			<0.050	<0.050	<0.050	<0.050	<0.050
Tetrachloroethylene	ug/g	4.5	21			<0.050	<0.050	<0.050	<0.050	<0.050
Toluene	ug/g	68	78	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	6.1	12			<0.050	<0.050	<0.050	<0.050	<0.050
1,1,2-Trichloroethane	ug/g	0.05	0.11			<0.050	<0.050	<0.050	<0.050	<0.050
Trichloroethylene	ug/g	0.91	0.61			<0.010	<0.010	<0.010	<0.010	<0.010
Trichlorofluoromethane	ug/g	4	5.8			<0.050	<0.050	<0.050	<0.050	<0.050
Vinyl chloride	ug/g	0.032	0.25			<0.020	<0.020	<0.020	<0.020	<0.020
o-Xylene	ug/g	-	-	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020	<0.020
m+p-Xylenes	ug/g	-	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Xylenes (Total)	ug/g	26	30	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-	71.5	91.9	92.7	89.3	92.8	94.2	
Surrogate: 1,4-Difluorobenzene	%	-	-	86.9	106.6	106.4	103.1	106.9	110.9	

Guide Limit #1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Comm. Property Use (Fine)

 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.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



Environmental

ANALYTICAL REPORT

Hydrocarbons - SOIL

Analyte	Unit	Guide Limits		Lab ID					
		#1	#2	Sample Date					
				Sample ID					
F1 (C6-C10)	ug/g	55	65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	55	65	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	230	250	480 ^{DLM}	16	<10	<10	<10	<10
F3 (C16-C34)	ug/g	1700	2500	3440 ^{DLM}	62	71	<50	<50	<50
F4 (C34-C50)	ug/g	3300	6600	5560 ^{DLM}	<50	<50	<50	<50	74
F4G-SG (GHH-Silica)	ug/g	3300	6600	13200					
Total Hydrocarbons (C6-C50)	ug/g	-	-	9480	78	<72	<72	<72	74
Chrom. to baseline at nC50		-	-	NO	YES	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	97.4	88.9	92.6	87.5	90.4	90.1
Surrogate: 3,4-Dichlorotoluene	%	-	-	52.9 ^{SURR-ND}	80.6	79.8	85.5	82.5	81.7

Guide Limit #1: T3-Soil-Ind/Com/Commu. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Commu. Property Use (Fine)

 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		Lab ID	L2336967-6	L2336967-10	L2336967-14	L2336967-15	L2336967-17
		#1	#2	Sample Date	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19	24-AUG-19
				Sample ID	BH102 SS3	BH103 SS1	BH104 SS2	BH104 SS3	BH105 SS2
Acenaphthene	ug/g	96	96		<0.050	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.15	0.17		<0.050	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.67	0.74		<0.050	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.96	0.96		0.060	0.055	0.113	<0.050	0.166
Benzo(a)pyrene	ug/g	0.3	0.3		0.099	0.078	0.142	0.055 ^R	0.197
Benzo(b)fluoranthene	ug/g	0.96	0.96		0.141 ^R	0.107 ^R	0.186	0.080 ^R	0.256
Benzo(g,h,i)perylene	ug/g	9.6	9.6		0.266 ^R	0.271 ^R	0.240	0.129 ^R	0.217
Benzo(k)fluoranthene	ug/g	0.96	0.96		<0.050	<0.050	<0.050	<0.050	0.072
Chrysene	ug/g	9.6	9.6		0.163	0.163	0.233	0.066	0.350
Dibenzo(ah)anthracene	ug/g	0.1	0.1		<0.050	<0.050	<0.050	<0.050	0.058
Fluoranthene	ug/g	9.6	9.6		0.089	0.079 ^R	0.201	0.061 ^R	0.356
Fluorene	ug/g	62	69		<0.050	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.76	0.95		0.095	0.091 ^R	0.101	0.054 ^R	0.107
1+2-Methylnaphthalenes	ug/g	76	85		<0.085	<0.085	<0.042	<0.085	<0.042
1-Methylnaphthalene	ug/g	76	85		<0.060 ^{DLM}	<0.060 ^{DLM}	<0.030	<0.060 ^{DLM}	<0.030
2-Methylnaphthalene	ug/g	76	85		<0.060 ^{DLM}	<0.060 ^{DLM}	<0.030	<0.060 ^{DLM}	<0.030
Naphthalene	ug/g	9.6	28		<0.065 ^{DLM}	<0.065 ^{DLM}	0.025	<0.065 ^{DLM}	<0.013
Phenanthrene	ug/g	12	16		0.051	<0.046	0.104	0.060	0.188
Pyrene	ug/g	96	96		0.176 ^R	0.107	0.218	0.089 ^R	0.355
Surrogate: 2-Fluorobiphenyl	%	-	-		105.5	102.5	91.4	107.9	92.3
Surrogate: p-Terphenyl d14	%	-	-		98.4	94.0	86.6	102.2	92.9

Guide Limit #1: T3-Soil-Ind/Com/Comm. Property Use (Coarse)

Guide Limit #2: T3-Soil-Ind/Com/Comm. Property Use (Fine)

 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.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
SURR-ND	Surrogate recovery marginally exceeded ALS DQO. Reported non-detect results for associated samples were deemed to be unaffected.
R	The ion abundance ratio(s) did not meet the acceptance criteria. Value is an estimated maximum.
DLM	Detection Limit Adjusted due to sample matrix effects (e.g. chemical interference, colour, turbidity).

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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).			
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.

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
---------------------	------	-----------------------------	----------------------

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), 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
---------------------	------	--------------------------------	-------------

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.

Reference Information

L2336967 CONT'D....
 Job Reference: G2S19650
 PAGE 12 of 13
 05-SEP-19 12:45 (MT)

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
---------------	--------	------------------	--------------------

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

F4G-ADD-511-WT	Soil	F4G SG-O.Reg 153/04 (July 2011)	MOE DECPH-E3398/CCME TIER 1
-----------------------	------	---------------------------------	-----------------------------

F4G, gravimetric analysis, is determined if the chromatogram does not return to baseline at or before C50. A soil sample is extracted with a solvent mix, the solvent is evaporated and the weight of the residue is determined.

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 200.2/6020A (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.

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), 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).

PSA-75UM-SIEVE-WT	Soil	% Particles>75um (Coarse/Fine)	CARTER CSSS 55.4 (modified)
--------------------------	------	--------------------------------	-----------------------------

An air-dried sample is reduced to < 2 mm size and mixed with a dispersing agent (sodium metaphosphate). The sample is washed through a 200 mesh (75 µm) sieve. The retained mass of sample is used to determine % sand fraction. If the percentage of sand is >50%, the soil is considered to be coarse textured soil. If the percentage of sand is <50%, the soil is considered to be fine textured.

VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
----------------------------	------	---------------------	-----------------

Reference Information

L2336967 CONT'D....
Job Reference: G2S19650
PAGE 13 of 13
05-SEP-19 12:45 (MT)

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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), 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

GLOSSARY OF REPORT TERMS

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

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

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

mg/kg lwt - milligrams per kilogram based on lipid-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: L2336967

Report Date: 05-SEP-19

Page 1 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
BTX-511-HS-WT		Soil						
Batch	R4782757							
WG3148025-4	DUP	WG3148025-3						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	04-SEP-19
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	04-SEP-19
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	04-SEP-19
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	04-SEP-19
WG3148025-2	LCS							
Benzene			122.5		%		70-130	04-SEP-19
Ethylbenzene			106.7		%		70-130	04-SEP-19
m+p-Xylenes			107.6		%		70-130	04-SEP-19
o-Xylene			107.0		%		70-130	04-SEP-19
Toluene			96.3		%		70-130	04-SEP-19
WG3148025-1	MB							
Benzene			<0.0068		ug/g		0.0068	04-SEP-19
Ethylbenzene			<0.018		ug/g		0.018	04-SEP-19
m+p-Xylenes			<0.030		ug/g		0.03	04-SEP-19
o-Xylene			<0.020		ug/g		0.02	04-SEP-19
Toluene			<0.080		ug/g		0.08	04-SEP-19
Surrogate: 1,4-Difluorobenzene			114.4		%		50-140	04-SEP-19
Surrogate: 4-Bromofluorobenzene			101.6		%		50-140	04-SEP-19
WG3148025-5	MS	L2336658-6						
Benzene			124.6		%		60-140	04-SEP-19
Ethylbenzene			104.0		%		60-140	04-SEP-19
m+p-Xylenes			103.9		%		60-140	04-SEP-19
o-Xylene			104.5		%		60-140	04-SEP-19
Toluene			94.5		%		60-140	04-SEP-19
F1-HS-511-WT		Soil						
Batch	R4781369							
WG3147878-4	DUP	WG3147878-3						
F1 (C6-C10)		19.6	20.1		ug/g	2.8	30	03-SEP-19
WG3147878-2	LCS							
F1 (C6-C10)			108.5		%		80-120	03-SEP-19
WG3147878-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	03-SEP-19
Surrogate: 3,4-Dichlorotoluene			93.9		%		60-140	03-SEP-19
WG3147878-6	MS	L2336483-1						



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 2 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT		Soil						
Batch	R4781369							
WG3147878-6	MS	L2336483-1						
F1 (C6-C10)			100.7		%		60-140	03-SEP-19
Batch	R4782458							
WG3148016-4	DUP	WG3148016-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	04-SEP-19
WG3148016-2	LCS							
F1 (C6-C10)			101.7		%		80-120	04-SEP-19
WG3148016-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	04-SEP-19
Surrogate: 3,4-Dichlorotoluene			87.8		%		60-140	04-SEP-19
WG3148016-6	MS	L2336862-1						
F1 (C6-C10)			84.0		%		60-140	04-SEP-19
Batch	R4782757							
WG3148025-4	DUP	WG3148025-3						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	04-SEP-19
WG3148025-2	LCS							
F1 (C6-C10)			114.7		%		80-120	04-SEP-19
WG3148025-1	MB							
F1 (C6-C10)			<5.0		ug/g		5	04-SEP-19
Surrogate: 3,4-Dichlorotoluene			104.2		%		60-140	04-SEP-19
WG3148025-6	MS	L2337161-1						
F1 (C6-C10)			98.7		%		60-140	04-SEP-19
F2-F4-511-WT		Soil						
Batch	R4782496							
WG3145647-3	DUP	WG3145647-5						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	30	03-SEP-19
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	30	03-SEP-19
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	30	03-SEP-19
WG3145647-2	LCS							
F2 (C10-C16)			103.7		%		80-120	03-SEP-19
F3 (C16-C34)			106.7		%		80-120	03-SEP-19
F4 (C34-C50)			110.8		%		80-120	03-SEP-19
WG3145647-1	MB							
F2 (C10-C16)			<10		ug/g		10	03-SEP-19
F3 (C16-C34)			<50		ug/g		50	03-SEP-19
F4 (C34-C50)			<50		ug/g		50	03-SEP-19



Environmental

Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 3 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F2-F4-511-WT	Soil							
Batch	R4782496							
WG3145647-1 MB								
Surrogate: 2-Bromobenzotrifluoride			83.5		%		60-140	03-SEP-19
WG3145647-4 MS		WG3145647-5						
F2 (C10-C16)			108.8		%		60-140	03-SEP-19
F3 (C16-C34)			109.5		%		60-140	03-SEP-19
F4 (C34-C50)			112.7		%		60-140	03-SEP-19
F4G-ADD-511-WT	Soil							
Batch	R4782921							
WG3151842-2 LCS								
F4G-SG (GHH-Silica)			74.6		%		60-140	04-SEP-19
WG3151842-1 MB								
F4G-SG (GHH-Silica)			<250		ug/g		250	04-SEP-19
MET-200.2-CCMS-WT	Soil							
Batch	R4782034							
WG3149978-2 CRM		WT-CANMET-TILL1						
Antimony (Sb)			101.3		%		70-130	03-SEP-19
Arsenic (As)			99.8		%		70-130	03-SEP-19
Barium (Ba)			97.0		%		70-130	03-SEP-19
Beryllium (Be)			96.8		%		70-130	03-SEP-19
Boron (B)			3.0		mg/kg		0-8.2	03-SEP-19
Cadmium (Cd)			97.1		%		70-130	03-SEP-19
Chromium (Cr)			102.3		%		70-130	03-SEP-19
Cobalt (Co)			99.2		%		70-130	03-SEP-19
Copper (Cu)			100.8		%		70-130	03-SEP-19
Lead (Pb)			97.2		%		70-130	03-SEP-19
Molybdenum (Mo)			103.4		%		70-130	03-SEP-19
Nickel (Ni)			99.7		%		70-130	03-SEP-19
Selenium (Se)			0.31		mg/kg		0.11-0.51	03-SEP-19
Silver (Ag)			0.24		mg/kg		0.13-0.33	03-SEP-19
Thallium (Tl)			0.121		mg/kg		0.077-0.18	03-SEP-19
Uranium (U)			102.3		%		70-130	03-SEP-19
Vanadium (V)			102.6		%		70-130	03-SEP-19
Zinc (Zn)			98.7		%		70-130	03-SEP-19
WG3149978-6 DUP		WG3149978-5						
Antimony (Sb)		<0.10	<0.10	RPD-NA	ug/g	N/A	30	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 4 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R4782034							
WG3149978-6	DUP	WG3149978-5						
Arsenic (As)		2.41	2.42		ug/g	0.2	30	03-SEP-19
Barium (Ba)		37.8	44.0		ug/g	15	40	03-SEP-19
Beryllium (Be)		0.35	0.36		ug/g	2.5	30	03-SEP-19
Boron (B)		7.3	7.0		ug/g	3.7	30	03-SEP-19
Cadmium (Cd)		0.268	0.295		ug/g	9.6	30	03-SEP-19
Chromium (Cr)		14.2	14.2		ug/g	0.1	30	03-SEP-19
Cobalt (Co)		5.36	5.33		ug/g	0.6	30	03-SEP-19
Copper (Cu)		13.4	13.5		ug/g	0.2	30	03-SEP-19
Lead (Pb)		9.87	9.82		ug/g	0.5	40	03-SEP-19
Molybdenum (Mo)		0.28	0.26		ug/g	4.3	40	03-SEP-19
Nickel (Ni)		11.6	11.5		ug/g	1.7	30	03-SEP-19
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	03-SEP-19
Silver (Ag)		<0.10	<0.10	RPD-NA	ug/g	N/A	40	03-SEP-19
Thallium (Tl)		0.104	0.103		ug/g	1.0	30	03-SEP-19
Uranium (U)		0.466	0.488		ug/g	4.6	30	03-SEP-19
Vanadium (V)		23.9	23.8		ug/g	0.6	30	03-SEP-19
Zinc (Zn)		114	114		ug/g	0.4	30	03-SEP-19
WG3149978-4	LCS							
Antimony (Sb)			110.8		%		80-120	03-SEP-19
Arsenic (As)			105.0		%		80-120	03-SEP-19
Barium (Ba)			103.4		%		80-120	03-SEP-19
Beryllium (Be)			99.6		%		80-120	03-SEP-19
Boron (B)			91.3		%		80-120	03-SEP-19
Cadmium (Cd)			102.3		%		80-120	03-SEP-19
Chromium (Cr)			106.5		%		80-120	03-SEP-19
Cobalt (Co)			103.3		%		80-120	03-SEP-19
Copper (Cu)			101.5		%		80-120	03-SEP-19
Lead (Pb)			104.9		%		80-120	03-SEP-19
Molybdenum (Mo)			108.3		%		80-120	03-SEP-19
Nickel (Ni)			102.9		%		80-120	03-SEP-19
Selenium (Se)			103.7		%		80-120	03-SEP-19
Silver (Ag)			98.2		%		80-120	03-SEP-19
Thallium (Tl)			102.0		%		80-120	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 5 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT		Soil						
Batch	R4782034							
WG3149978-4	LCS							
Uranium (U)			106.4		%		80-120	03-SEP-19
Vanadium (V)			107.5		%		80-120	03-SEP-19
Zinc (Zn)			100.1		%		80-120	03-SEP-19
WG3149978-1	MB							
Antimony (Sb)			<0.10		mg/kg		0.1	03-SEP-19
Arsenic (As)			<0.10		mg/kg		0.1	03-SEP-19
Barium (Ba)			<0.50		mg/kg		0.5	03-SEP-19
Beryllium (Be)			<0.10		mg/kg		0.1	03-SEP-19
Boron (B)			<5.0		mg/kg		5	03-SEP-19
Cadmium (Cd)			<0.020		mg/kg		0.02	03-SEP-19
Chromium (Cr)			<0.50		mg/kg		0.5	03-SEP-19
Cobalt (Co)			<0.10		mg/kg		0.1	03-SEP-19
Copper (Cu)			<0.50		mg/kg		0.5	03-SEP-19
Lead (Pb)			<0.50		mg/kg		0.5	03-SEP-19
Molybdenum (Mo)			<0.10		mg/kg		0.1	03-SEP-19
Nickel (Ni)			<0.50		mg/kg		0.5	03-SEP-19
Selenium (Se)			<0.20		mg/kg		0.2	03-SEP-19
Silver (Ag)			<0.10		mg/kg		0.1	03-SEP-19
Thallium (Tl)			<0.050		mg/kg		0.05	03-SEP-19
Uranium (U)			<0.050		mg/kg		0.05	03-SEP-19
Vanadium (V)			<0.20		mg/kg		0.2	03-SEP-19
Zinc (Zn)			<2.0		mg/kg		2	03-SEP-19
MOISTURE-WT		Soil						
Batch	R4774957							
WG3145675-3	DUP	L2336962-1						
% Moisture		4.88	5.21		%	6.5	20	28-AUG-19
WG3145675-2	LCS							
% Moisture			100.7		%		90-110	28-AUG-19
WG3145675-1	MB							
% Moisture			<0.10		%		0.1	28-AUG-19
PAH-511-WT		Soil						
Batch	R4777587							
WG3145347-3	DUP	WG3145347-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	29-AUG-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 6 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R4777587							
WG3145347-3 DUP		WG3145347-5						
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	29-AUG-19
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Benzo(b)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Dibenzo(ah)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	29-AUG-19
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	29-AUG-19
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	29-AUG-19
WG3145347-2 LCS								
1-Methylnaphthalene			101.1		%		50-140	29-AUG-19
2-Methylnaphthalene			94.1		%		50-140	29-AUG-19
Acenaphthene			100.2		%		50-140	29-AUG-19
Acenaphthylene			100.8		%		50-140	29-AUG-19
Anthracene			101.3		%		50-140	29-AUG-19
Benzo(a)anthracene			100.8		%		50-140	29-AUG-19
Benzo(a)pyrene			99.99		%		50-140	29-AUG-19
Benzo(b)fluoranthene			94.6		%		50-140	29-AUG-19
Benzo(g,h,i)perylene			100.2		%		50-140	29-AUG-19
Benzo(k)fluoranthene			108.6		%		50-140	29-AUG-19
Chrysene			109.9		%		50-140	29-AUG-19
Dibenzo(ah)anthracene			100.6		%		50-140	29-AUG-19
Fluoranthene			102.1		%		50-140	29-AUG-19
Fluorene			97.4		%		50-140	29-AUG-19
Indeno(1,2,3-cd)pyrene			99.8		%		50-140	29-AUG-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 7 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R4777587							
WG3145347-2	LCS							
Naphthalene			98.0		%		50-140	29-AUG-19
Phenanthrene			103.9		%		50-140	29-AUG-19
Pyrene			102.2		%		50-140	29-AUG-19
WG3145347-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	29-AUG-19
2-Methylnaphthalene			<0.030		ug/g		0.03	29-AUG-19
Acenaphthene			<0.050		ug/g		0.05	29-AUG-19
Acenaphthylene			<0.050		ug/g		0.05	29-AUG-19
Anthracene			<0.050		ug/g		0.05	29-AUG-19
Benzo(a)anthracene			<0.050		ug/g		0.05	29-AUG-19
Benzo(a)pyrene			<0.050		ug/g		0.05	29-AUG-19
Benzo(b)fluoranthene			<0.050		ug/g		0.05	29-AUG-19
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	29-AUG-19
Benzo(k)fluoranthene			<0.050		ug/g		0.05	29-AUG-19
Chrysene			<0.050		ug/g		0.05	29-AUG-19
Dibenzo(ah)anthracene			<0.050		ug/g		0.05	29-AUG-19
Fluoranthene			<0.050		ug/g		0.05	29-AUG-19
Fluorene			<0.050		ug/g		0.05	29-AUG-19
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	29-AUG-19
Naphthalene			<0.013		ug/g		0.013	29-AUG-19
Phenanthrene			<0.046		ug/g		0.046	29-AUG-19
Pyrene			<0.050		ug/g		0.05	29-AUG-19
Surrogate: 2-Fluorobiphenyl			104.3		%		50-140	29-AUG-19
Surrogate: p-Terphenyl d14			96.7		%		50-140	29-AUG-19
WG3145347-4	MS	WG3145347-5						
1-Methylnaphthalene			107.0		%		50-140	29-AUG-19
2-Methylnaphthalene			99.6		%		50-140	29-AUG-19
Acenaphthene			105.5		%		50-140	29-AUG-19
Acenaphthylene			105.9		%		50-140	29-AUG-19
Anthracene			104.5		%		50-140	29-AUG-19
Benzo(a)anthracene			103.4		%		50-140	29-AUG-19
Benzo(a)pyrene			103.2		%		50-140	29-AUG-19
Benzo(b)fluoranthene			97.4		%		50-140	29-AUG-19
Benzo(g,h,i)perylene			101.9		%		50-140	29-AUG-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 8 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R4777587							
WG3145347-4 MS		WG3145347-5						
Benzo(k)fluoranthene			114.1		%		50-140	29-AUG-19
Chrysene			114.0		%		50-140	29-AUG-19
Dibenzo(ah)anthracene			103.0		%		50-140	29-AUG-19
Fluoranthene			105.7		%		50-140	29-AUG-19
Fluorene			102.2		%		50-140	29-AUG-19
Indeno(1,2,3-cd)pyrene			96.0		%		50-140	29-AUG-19
Naphthalene			103.4		%		50-140	29-AUG-19
Phenanthrene			108.2		%		50-140	29-AUG-19
Pyrene			106.4		%		50-140	29-AUG-19
Batch	R4782378							
WG3147394-3 DUP		WG3147394-5						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Benzo(a)anthracene		0.113	0.095		ug/g	17	40	04-SEP-19
Benzo(a)pyrene		0.142	0.130		ug/g	9.1	40	04-SEP-19
Benzo(b)fluoranthene		0.186	0.167		ug/g	11	40	04-SEP-19
Benzo(g,h,i)perylene		0.240	0.208		ug/g	14	40	04-SEP-19
Benzo(k)fluoranthene		<0.050	0.051	RPD-NA	ug/g	N/A	40	04-SEP-19
Chrysene		0.233	0.231		ug/g	0.6	40	04-SEP-19
Dibenzo(ah)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Fluoranthene		0.201	0.159		ug/g	23	40	04-SEP-19
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Indeno(1,2,3-cd)pyrene		0.101	0.096		ug/g	5.3	40	04-SEP-19
Naphthalene		0.025	0.023		ug/g	8.4	40	04-SEP-19
Phenanthrene		0.104	0.088		ug/g	16	40	04-SEP-19
Pyrene		0.218	0.192		ug/g	13	40	04-SEP-19
WG3147394-2 LCS								
1-Methylnaphthalene			98.5		%		50-140	04-SEP-19
2-Methylnaphthalene			94.4		%		50-140	04-SEP-19
Acenaphthene			99.4		%		50-140	04-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 9 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R4782378							
WG3147394-2	LCS							
Acenaphthylene			100.8		%		50-140	04-SEP-19
Anthracene			99.4		%		50-140	04-SEP-19
Benzo(a)anthracene			98.7		%		50-140	04-SEP-19
Benzo(a)pyrene			96.1		%		50-140	04-SEP-19
Benzo(b)fluoranthene			94.6		%		50-140	04-SEP-19
Benzo(g,h,i)perylene			108.1		%		50-140	04-SEP-19
Benzo(k)fluoranthene			96.9		%		50-140	04-SEP-19
Chrysene			114.7		%		50-140	04-SEP-19
Dibenzo(ah)anthracene			106.9		%		50-140	04-SEP-19
Fluoranthene			96.4		%		50-140	04-SEP-19
Fluorene			96.6		%		50-140	04-SEP-19
Indeno(1,2,3-cd)pyrene			99.7		%		50-140	04-SEP-19
Naphthalene			98.7		%		50-140	04-SEP-19
Phenanthrene			101.0		%		50-140	04-SEP-19
Pyrene			96.4		%		50-140	04-SEP-19
WG3147394-1	MB							
1-Methylnaphthalene			<0.030		ug/g		0.03	04-SEP-19
2-Methylnaphthalene			<0.030		ug/g		0.03	04-SEP-19
Acenaphthene			<0.050		ug/g		0.05	04-SEP-19
Acenaphthylene			<0.050		ug/g		0.05	04-SEP-19
Anthracene			<0.050		ug/g		0.05	04-SEP-19
Benzo(a)anthracene			<0.050		ug/g		0.05	04-SEP-19
Benzo(a)pyrene			<0.050		ug/g		0.05	04-SEP-19
Benzo(b)fluoranthene			<0.050		ug/g		0.05	04-SEP-19
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	04-SEP-19
Benzo(k)fluoranthene			<0.050		ug/g		0.05	04-SEP-19
Chrysene			<0.050		ug/g		0.05	04-SEP-19
Dibenzo(ah)anthracene			<0.050		ug/g		0.05	04-SEP-19
Fluoranthene			<0.050		ug/g		0.05	04-SEP-19
Fluorene			<0.050		ug/g		0.05	04-SEP-19
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	04-SEP-19
Naphthalene			<0.013		ug/g		0.013	04-SEP-19
Phenanthrene			<0.046		ug/g		0.046	04-SEP-19
Pyrene			<0.050		ug/g		0.05	04-SEP-19

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Soil						
Batch	R4782378							
WG3147394-1	MB							
Surrogate: 2-Fluorobiphenyl			84.0		%		50-140	04-SEP-19
Surrogate: p-Terphenyl d14			74.4		%		50-140	04-SEP-19
WG3147394-4	MS	WG3147394-5						
1-Methylnaphthalene			95.7		%		50-140	04-SEP-19
2-Methylnaphthalene			91.5		%		50-140	04-SEP-19
Acenaphthene			96.5		%		50-140	04-SEP-19
Acenaphthylene			101.2		%		50-140	04-SEP-19
Anthracene			97.8		%		50-140	04-SEP-19
Benzo(a)anthracene			98.1		%		50-140	04-SEP-19
Benzo(a)pyrene			89.5		%		50-140	04-SEP-19
Benzo(b)fluoranthene			85.1		%		50-140	04-SEP-19
Benzo(g,h,i)perylene			83.3		%		50-140	04-SEP-19
Benzo(k)fluoranthene			92.4		%		50-140	04-SEP-19
Chrysene			102.0		%		50-140	04-SEP-19
Dibenzo(ah)anthracene			93.9		%		50-140	04-SEP-19
Fluoranthene			98.7		%		50-140	04-SEP-19
Fluorene			95.6		%		50-140	04-SEP-19
Indeno(1,2,3-cd)pyrene			92.2		%		50-140	04-SEP-19
Naphthalene			94.7		%		50-140	04-SEP-19
Phenanthrene			95.7		%		50-140	04-SEP-19
Pyrene			98.9		%		50-140	04-SEP-19
PH-WT		Soil						
Batch	R4782107							
WG3146310-1	DUP	L2337161-1						
pH		8.06	8.13	J	pH units	0.07	0.3	03-SEP-19
WG3150094-1	LCS							
pH			6.96		pH units		6.9-7.1	03-SEP-19
PSA-75UM-SIEVE-WT		Soil						
Batch	R4783574							
WG3152757-2	DUP	L2339420-3						
% >75um		5.5	4.9	J	%	0.6	5	05-SEP-19
WG3152757-1	IRM	PSA_IRM						
% >75um			105.0		%		70-130	05-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 11 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4781369							
WG3147878-4	DUP	WG3147878-3						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,2-Dichlorobenzene		<8.0	<8.0	RPD-NA	ug/g	N/A	40	03-SEP-19
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
1,3-Dichlorobenzene		<8.0	<8.0	RPD-NA	ug/g	N/A	40	03-SEP-19
1,4-Dichlorobenzene		<8.0	<8.0	RPD-NA	ug/g	N/A	40	03-SEP-19
Acetone		15.1	15.1		ug/g	0.0	40	03-SEP-19
Benzene		1.22	1.20		ug/g	1.7	40	03-SEP-19
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	03-SEP-19
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Ethylbenzene		1.26	1.23		ug/g	2.2	40	03-SEP-19
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
MTBE		0.158	0.154		ug/g	2.7	40	03-SEP-19
m+p-Xylenes		0.089	0.086		ug/g	3.3	40	03-SEP-19
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	03-SEP-19
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	03-SEP-19
o-Xylene		0.146	0.144		ug/g	1.7	40	03-SEP-19
Styrene		10.8	10.7		ug/g			03-SEP-19

Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 12 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4781369							
WG3147878-4 DUP		WG3147878-3						
Styrene		10.8	10.7		ug/g	1.0	40	03-SEP-19
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Toluene		0.159	0.154		ug/g	2.7	40	03-SEP-19
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	03-SEP-19
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	03-SEP-19
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	03-SEP-19
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	03-SEP-19
WG3147878-2 LCS								
1,1,1,2-Tetrachloroethane			113.7		%		60-130	03-SEP-19
1,1,1,2-Tetrachloroethane			102.9		%		60-130	03-SEP-19
1,1,1-Trichloroethane			115.9		%		60-130	03-SEP-19
1,1,2-Trichloroethane			106.4		%		60-130	03-SEP-19
1,1-Dichloroethane			103.6		%		60-130	03-SEP-19
1,1-Dichloroethylene			106.5		%		60-130	03-SEP-19
1,2-Dibromoethane			106.7		%		70-130	03-SEP-19
1,2-Dichlorobenzene			108.4		%		70-130	03-SEP-19
1,2-Dichloroethane			114.6		%		60-130	03-SEP-19
1,2-Dichloropropane			104.3		%		70-130	03-SEP-19
1,3-Dichlorobenzene			109.9		%		70-130	03-SEP-19
1,4-Dichlorobenzene			110.8		%		70-130	03-SEP-19
Acetone			105.2		%		60-140	03-SEP-19
Benzene			111.7		%		70-130	03-SEP-19
Bromodichloromethane			115.3		%		50-140	03-SEP-19
Bromoform			114.4		%		70-130	03-SEP-19
Bromomethane			102.8		%		50-140	03-SEP-19
Carbon tetrachloride			122.7		%		70-130	03-SEP-19
Chlorobenzene			105.3		%		70-130	03-SEP-19
Chloroform			116.5		%		70-130	03-SEP-19
cis-1,2-Dichloroethylene			110.1		%		70-130	03-SEP-19
cis-1,3-Dichloropropene			112.4		%		70-130	03-SEP-19
Dibromochloromethane			112.1		%		60-130	03-SEP-19
Dichlorodifluoromethane			68.3		%		50-140	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 13 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4781369							
WG3147878-2	LCS							
Ethylbenzene			104.5		%		70-130	03-SEP-19
n-Hexane			97.9		%		70-130	03-SEP-19
Methylene Chloride			99.9		%		70-130	03-SEP-19
MTBE			111.2		%		70-130	03-SEP-19
m+p-Xylenes			107.1		%		70-130	03-SEP-19
Methyl Ethyl Ketone			95.4		%		60-140	03-SEP-19
Methyl Isobutyl Ketone			99.4		%		60-140	03-SEP-19
o-Xylene			104.7		%		70-130	03-SEP-19
Styrene			101.6		%		70-130	03-SEP-19
Tetrachloroethylene			123.0		%		60-130	03-SEP-19
Toluene			103.5		%		70-130	03-SEP-19
trans-1,2-Dichloroethylene			108.6		%		60-130	03-SEP-19
trans-1,3-Dichloropropene			107.7		%		70-130	03-SEP-19
Trichloroethylene			115.8		%		60-130	03-SEP-19
Trichlorofluoromethane			117.2		%		50-140	03-SEP-19
Vinyl chloride			109.9		%		60-140	03-SEP-19
WG3147878-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	03-SEP-19
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	03-SEP-19
1,1,1-Trichloroethane			<0.050		ug/g		0.05	03-SEP-19
1,1,2-Trichloroethane			<0.050		ug/g		0.05	03-SEP-19
1,1-Dichloroethane			<0.050		ug/g		0.05	03-SEP-19
1,1-Dichloroethylene			<0.050		ug/g		0.05	03-SEP-19
1,2-Dibromoethane			<0.050		ug/g		0.05	03-SEP-19
1,2-Dichlorobenzene			<0.050		ug/g		0.05	03-SEP-19
1,2-Dichloroethane			<0.050		ug/g		0.05	03-SEP-19
1,2-Dichloropropane			<0.050		ug/g		0.05	03-SEP-19
1,3-Dichlorobenzene			<0.050		ug/g		0.05	03-SEP-19
1,4-Dichlorobenzene			<0.050		ug/g		0.05	03-SEP-19
Acetone			<0.50		ug/g		0.5	03-SEP-19
Benzene			<0.0068		ug/g		0.0068	03-SEP-19
Bromodichloromethane			<0.050		ug/g		0.05	03-SEP-19
Bromoform			<0.050		ug/g		0.05	03-SEP-19
Bromomethane			<0.050		ug/g		0.05	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 14 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4781369							
WG3147878-1 MB								
Carbon tetrachloride			<0.050		ug/g		0.05	03-SEP-19
Chlorobenzene			<0.050		ug/g		0.05	03-SEP-19
Chloroform			<0.050		ug/g		0.05	03-SEP-19
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	03-SEP-19
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	03-SEP-19
Dibromochloromethane			<0.050		ug/g		0.05	03-SEP-19
Dichlorodifluoromethane			<0.050		ug/g		0.05	03-SEP-19
Ethylbenzene			<0.018		ug/g		0.018	03-SEP-19
n-Hexane			<0.050		ug/g		0.05	03-SEP-19
Methylene Chloride			<0.050		ug/g		0.05	03-SEP-19
MTBE			<0.050		ug/g		0.05	03-SEP-19
m+p-Xylenes			<0.030		ug/g		0.03	03-SEP-19
Methyl Ethyl Ketone			<0.50		ug/g		0.5	03-SEP-19
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	03-SEP-19
o-Xylene			<0.020		ug/g		0.02	03-SEP-19
Styrene			<0.050		ug/g		0.05	03-SEP-19
Tetrachloroethylene			<0.050		ug/g		0.05	03-SEP-19
Toluene			<0.080		ug/g		0.08	03-SEP-19
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	03-SEP-19
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	03-SEP-19
Trichloroethylene			<0.010		ug/g		0.01	03-SEP-19
Trichlorofluoromethane			<0.050		ug/g		0.05	03-SEP-19
Vinyl chloride			<0.020		ug/g		0.02	03-SEP-19
Surrogate: 1,4-Difluorobenzene			111.5		%		50-140	03-SEP-19
Surrogate: 4-Bromofluorobenzene			98.8		%		50-140	03-SEP-19
WG3147878-5 MS		L2336466-1						
1,1,1,2-Tetrachloroethane			104.8		%		50-140	03-SEP-19
1,1,2,2-Tetrachloroethane			103.6		%		50-140	03-SEP-19
1,1,1-Trichloroethane			103.8		%		50-140	03-SEP-19
1,1,2-Trichloroethane			104.7		%		50-140	03-SEP-19
1,1-Dichloroethane			95.9		%		50-140	03-SEP-19
1,1-Dichloroethylene			95.0		%		50-140	03-SEP-19
1,2-Dibromoethane			104.8		%		50-140	03-SEP-19
1,2-Dichlorobenzene			33.8	E	%		50-140	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 15 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4781369							
WG3147878-5 MS		L2336466-1						
1,2-Dichloroethane			109.7		%		50-140	03-SEP-19
1,2-Dichloropropane			97.1		%		50-140	03-SEP-19
1,3-Dichlorobenzene			34.5	E	%		50-140	03-SEP-19
1,4-Dichlorobenzene			34.5	E	%		50-140	03-SEP-19
Acetone			N/A	MS-B	%		-	03-SEP-19
Benzene			100.5		%		50-140	03-SEP-19
Bromodichloromethane			106.8		%		50-140	03-SEP-19
Bromoform			109.1		%		50-140	03-SEP-19
Bromomethane			95.7		%		50-140	03-SEP-19
Carbon tetrachloride			108.5		%		50-140	03-SEP-19
Chlorobenzene			96.0		%		50-140	03-SEP-19
Chloroform			108.1		%		50-140	03-SEP-19
cis-1,2-Dichloroethylene			103.2		%		50-140	03-SEP-19
cis-1,3-Dichloropropene			104.1		%		50-140	03-SEP-19
Dibromochloromethane			107.8		%		50-140	03-SEP-19
Dichlorodifluoromethane			58.7		%		50-140	03-SEP-19
Ethylbenzene			91.8		%		50-140	03-SEP-19
n-Hexane			84.0		%		50-140	03-SEP-19
Methylene Chloride			94.0		%		50-140	03-SEP-19
MTBE			105.8		%		50-140	03-SEP-19
m+p-Xylenes			94.4		%		50-140	03-SEP-19
Methyl Ethyl Ketone			106.6		%		50-140	03-SEP-19
Methyl Isobutyl Ketone			101.7		%		50-140	03-SEP-19
o-Xylene			92.5		%		50-140	03-SEP-19
Styrene			N/A	MS-B	%		-	03-SEP-19
Tetrachloroethylene			108.7		%		50-140	03-SEP-19
Toluene			94.4		%		50-140	03-SEP-19
trans-1,2-Dichloroethylene			98.2		%		50-140	03-SEP-19
trans-1,3-Dichloropropene			103.0		%		50-140	03-SEP-19
Trichloroethylene			103.5		%		50-140	03-SEP-19
Trichlorofluoromethane			104.0		%		50-140	03-SEP-19
Vinyl chloride			99.4		%		50-140	03-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 16 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4782458							
WG3148016-4	DUP	WG3148016-3						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	04-SEP-19
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	04-SEP-19
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	04-SEP-19
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	04-SEP-19
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	04-SEP-19
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	04-SEP-19
Styrene		<0.050	<0.050		ug/g			04-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 17 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4782458							
WG3148016-4 DUP		WG3148016-3						
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	04-SEP-19
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	04-SEP-19
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	04-SEP-19
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	04-SEP-19
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	04-SEP-19
WG3148016-2 LCS								
1,1,1,2-Tetrachloroethane			96.4		%		60-130	04-SEP-19
1,1,1,2,2-Tetrachloroethane			97.6		%		60-130	04-SEP-19
1,1,1-Trichloroethane			87.5		%		60-130	04-SEP-19
1,1,2-Trichloroethane			100.6		%		60-130	04-SEP-19
1,1-Dichloroethane			87.0		%		60-130	04-SEP-19
1,1-Dichloroethylene			76.9		%		60-130	04-SEP-19
1,2-Dibromoethane			98.6		%		70-130	04-SEP-19
1,2-Dichlorobenzene			100.1		%		70-130	04-SEP-19
1,2-Dichloroethane			91.6		%		60-130	04-SEP-19
1,2-Dichloropropane			95.6		%		70-130	04-SEP-19
1,3-Dichlorobenzene			98.5		%		70-130	04-SEP-19
1,4-Dichlorobenzene			99.7		%		70-130	04-SEP-19
Acetone			94.1		%		60-140	04-SEP-19
Benzene			97.1		%		70-130	04-SEP-19
Bromodichloromethane			93.0		%		50-140	04-SEP-19
Bromoform			98.5		%		70-130	04-SEP-19
Bromomethane			78.3		%		50-140	04-SEP-19
Carbon tetrachloride			87.9		%		70-130	04-SEP-19
Chlorobenzene			95.1		%		70-130	04-SEP-19
Chloroform			95.5		%		70-130	04-SEP-19
cis-1,2-Dichloroethylene			97.0		%		70-130	04-SEP-19
cis-1,3-Dichloropropene			97.5		%		70-130	04-SEP-19
Dibromochloromethane			94.4		%		60-130	04-SEP-19
Dichlorodifluoromethane			51.1		%		50-140	04-SEP-19

Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 18 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4782458							
WG3148016-2	LCS							
Ethylbenzene			88.4		%		70-130	04-SEP-19
n-Hexane			66.6	LCS-L	%		70-130	04-SEP-19
Methylene Chloride			96.0		%		70-130	04-SEP-19
MTBE			97.0		%		70-130	04-SEP-19
m+p-Xylenes			87.0		%		70-130	04-SEP-19
Methyl Ethyl Ketone			100.7		%		60-140	04-SEP-19
Methyl Isobutyl Ketone			87.8		%		60-140	04-SEP-19
o-Xylene			88.4		%		70-130	04-SEP-19
Styrene			89.1		%		70-130	04-SEP-19
Tetrachloroethylene			93.3		%		60-130	04-SEP-19
Toluene			91.5		%		70-130	04-SEP-19
trans-1,2-Dichloroethylene			82.2		%		60-130	04-SEP-19
trans-1,3-Dichloropropene			88.4		%		70-130	04-SEP-19
Trichloroethylene			98.2		%		60-130	04-SEP-19
Trichlorofluoromethane			77.8		%		50-140	04-SEP-19
Vinyl chloride			80.0		%		60-140	04-SEP-19
WG3148016-1	MB							
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	04-SEP-19
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	04-SEP-19
1,1,1-Trichloroethane			<0.050		ug/g		0.05	04-SEP-19
1,1,2-Trichloroethane			<0.050		ug/g		0.05	04-SEP-19
1,1-Dichloroethane			<0.050		ug/g		0.05	04-SEP-19
1,1-Dichloroethylene			<0.050		ug/g		0.05	04-SEP-19
1,2-Dibromoethane			<0.050		ug/g		0.05	04-SEP-19
1,2-Dichlorobenzene			<0.050		ug/g		0.05	04-SEP-19
1,2-Dichloroethane			<0.050		ug/g		0.05	04-SEP-19
1,2-Dichloropropane			<0.050		ug/g		0.05	04-SEP-19
1,3-Dichlorobenzene			<0.050		ug/g		0.05	04-SEP-19
1,4-Dichlorobenzene			<0.050		ug/g		0.05	04-SEP-19
Acetone			<0.50		ug/g		0.5	04-SEP-19
Benzene			<0.0068		ug/g		0.0068	04-SEP-19
Bromodichloromethane			<0.050		ug/g		0.05	04-SEP-19
Bromoform			<0.050		ug/g		0.05	04-SEP-19
Bromomethane			<0.050		ug/g		0.05	04-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 19 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4782458							
WG3148016-1	MB							
Carbon tetrachloride			<0.050		ug/g		0.05	04-SEP-19
Chlorobenzene			<0.050		ug/g		0.05	04-SEP-19
Chloroform			<0.050		ug/g		0.05	04-SEP-19
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	04-SEP-19
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	04-SEP-19
Dibromochloromethane			<0.050		ug/g		0.05	04-SEP-19
Dichlorodifluoromethane			<0.050		ug/g		0.05	04-SEP-19
Ethylbenzene			<0.018		ug/g		0.018	04-SEP-19
n-Hexane			<0.050		ug/g		0.05	04-SEP-19
Methylene Chloride			<0.050		ug/g		0.05	04-SEP-19
MTBE			<0.050		ug/g		0.05	04-SEP-19
m+p-Xylenes			<0.030		ug/g		0.03	04-SEP-19
Methyl Ethyl Ketone			<0.50		ug/g		0.5	04-SEP-19
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	04-SEP-19
o-Xylene			<0.020		ug/g		0.02	04-SEP-19
Styrene			<0.050		ug/g		0.05	04-SEP-19
Tetrachloroethylene			<0.050		ug/g		0.05	04-SEP-19
Toluene			<0.080		ug/g		0.08	04-SEP-19
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	04-SEP-19
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	04-SEP-19
Trichloroethylene			<0.010		ug/g		0.01	04-SEP-19
Trichlorofluoromethane			<0.050		ug/g		0.05	04-SEP-19
Vinyl chloride			<0.020		ug/g		0.02	04-SEP-19
Surrogate: 1,4-Difluorobenzene			111.0		%		50-140	04-SEP-19
Surrogate: 4-Bromofluorobenzene			95.0		%		50-140	04-SEP-19
WG3148016-5	MS	L2336024-4						
1,1,1,2-Tetrachloroethane			101.7		%		50-140	04-SEP-19
1,1,2,2-Tetrachloroethane			92.0		%		50-140	04-SEP-19
1,1,1-Trichloroethane			94.5		%		50-140	04-SEP-19
1,1,2-Trichloroethane			97.5		%		50-140	04-SEP-19
1,1-Dichloroethane			90.4		%		50-140	04-SEP-19
1,1-Dichloroethylene			83.0		%		50-140	04-SEP-19
1,2-Dibromoethane			92.7		%		50-140	04-SEP-19
1,2-Dichlorobenzene			104.0		%		50-140	04-SEP-19



Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Page 20 of 21

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5

Contact: JESSICA BOELHOUWER

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Soil						
Batch	R4782458							
WG3148016-5 MS		L2336024-4						
1,2-Dichloroethane			86.0		%		50-140	04-SEP-19
1,2-Dichloropropane			96.0		%		50-140	04-SEP-19
1,3-Dichlorobenzene			104.4		%		50-140	04-SEP-19
1,4-Dichlorobenzene			104.8		%		50-140	04-SEP-19
Acetone			81.9		%		50-140	04-SEP-19
Benzene			100.5		%		50-140	04-SEP-19
Bromodichloromethane			92.3		%		50-140	04-SEP-19
Bromoform			93.4		%		50-140	04-SEP-19
Bromomethane			77.3		%		50-140	04-SEP-19
Carbon tetrachloride			96.2		%		50-140	04-SEP-19
Chlorobenzene			99.2		%		50-140	04-SEP-19
Chloroform			98.4		%		50-140	04-SEP-19
cis-1,2-Dichloroethylene			99.0		%		50-140	04-SEP-19
cis-1,3-Dichloropropene			87.1		%		50-140	04-SEP-19
Dibromochloromethane			92.6		%		50-140	04-SEP-19
Dichlorodifluoromethane			59.0		%		50-140	04-SEP-19
Ethylbenzene			96.2		%		50-140	04-SEP-19
n-Hexane			72.8		%		50-140	04-SEP-19
Methylene Chloride			93.8		%		50-140	04-SEP-19
MTBE			100.6		%		50-140	04-SEP-19
m+p-Xylenes			94.0		%		50-140	04-SEP-19
Methyl Ethyl Ketone			80.0		%		50-140	04-SEP-19
Methyl Isobutyl Ketone			75.3		%		50-140	04-SEP-19
o-Xylene			94.9		%		50-140	04-SEP-19
Styrene			92.6		%		50-140	04-SEP-19
Tetrachloroethylene			102.6		%		50-140	04-SEP-19
Toluene			98.6		%		50-140	04-SEP-19
trans-1,2-Dichloroethylene			85.5		%		50-140	04-SEP-19
trans-1,3-Dichloropropene			77.3		%		50-140	04-SEP-19
Trichloroethylene			104.1		%		50-140	04-SEP-19
Trichlorofluoromethane			86.2		%		50-140	04-SEP-19
Vinyl chloride			86.3		%		50-140	04-SEP-19

Quality Control Report

Workorder: L2336967

Report Date: 05-SEP-19

Client: G2S ENVIRONMENTAL CONSULTING, INC.
37 SANDIFORD DRIVE SUITE 411
STOUFFVILLE ON L4A7X5
Contact: JESSICA BOELHOUWER

Page 21 of 21

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
E	Matrix Spike recovery outside ALS DQO due to heterogeneous analyte background in sample.
J	Duplicate results and limits are expressed in terms of absolute difference.
LCS-L	Lab Control Sample recovery was below ALS DQO. Reference Material and/or Matrix Spike results were acceptable. Non-detected sample results are considered reliable. Other results, if reported, have been qualified.
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

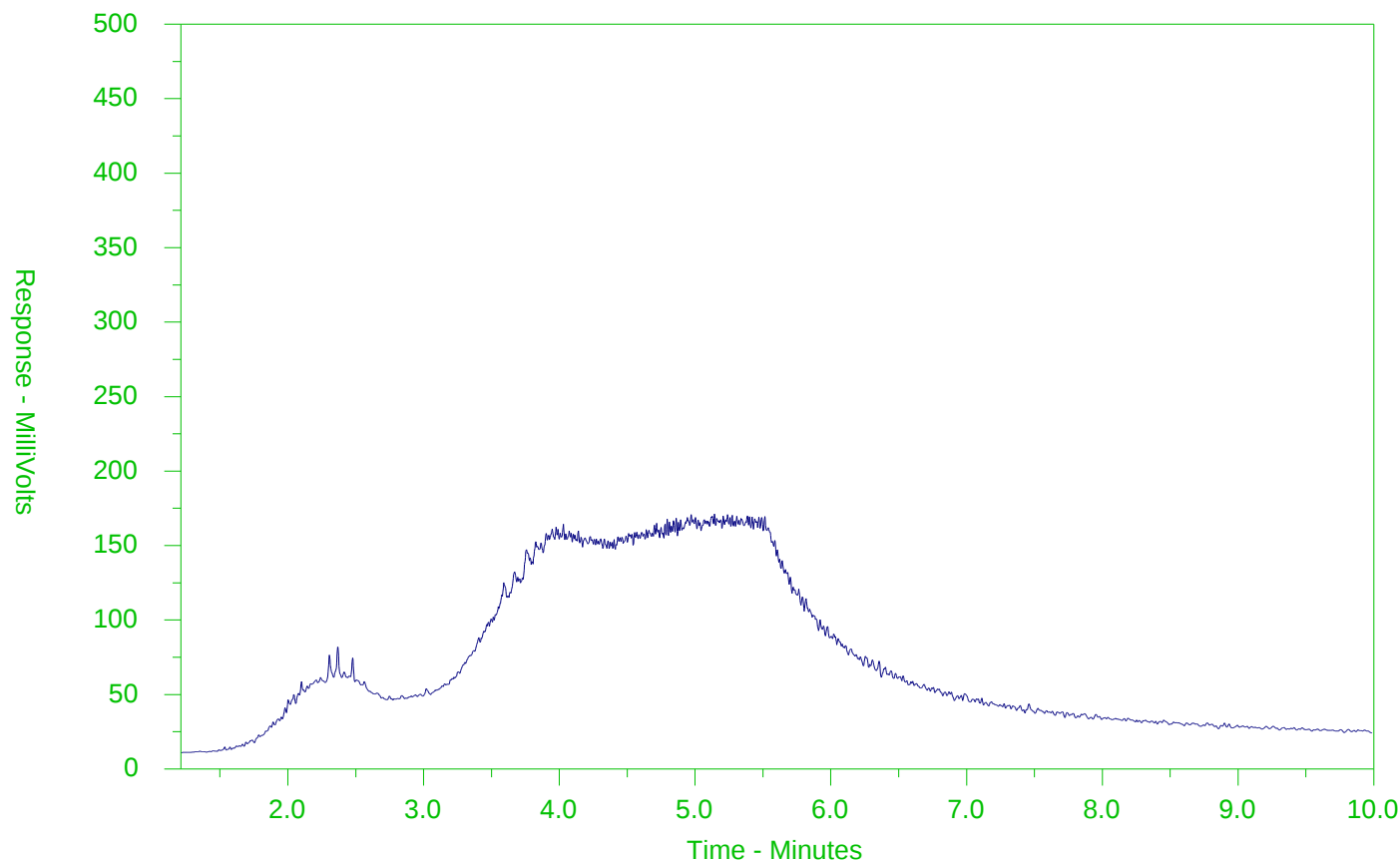
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2336967-1
Client Sample ID: BH101 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.

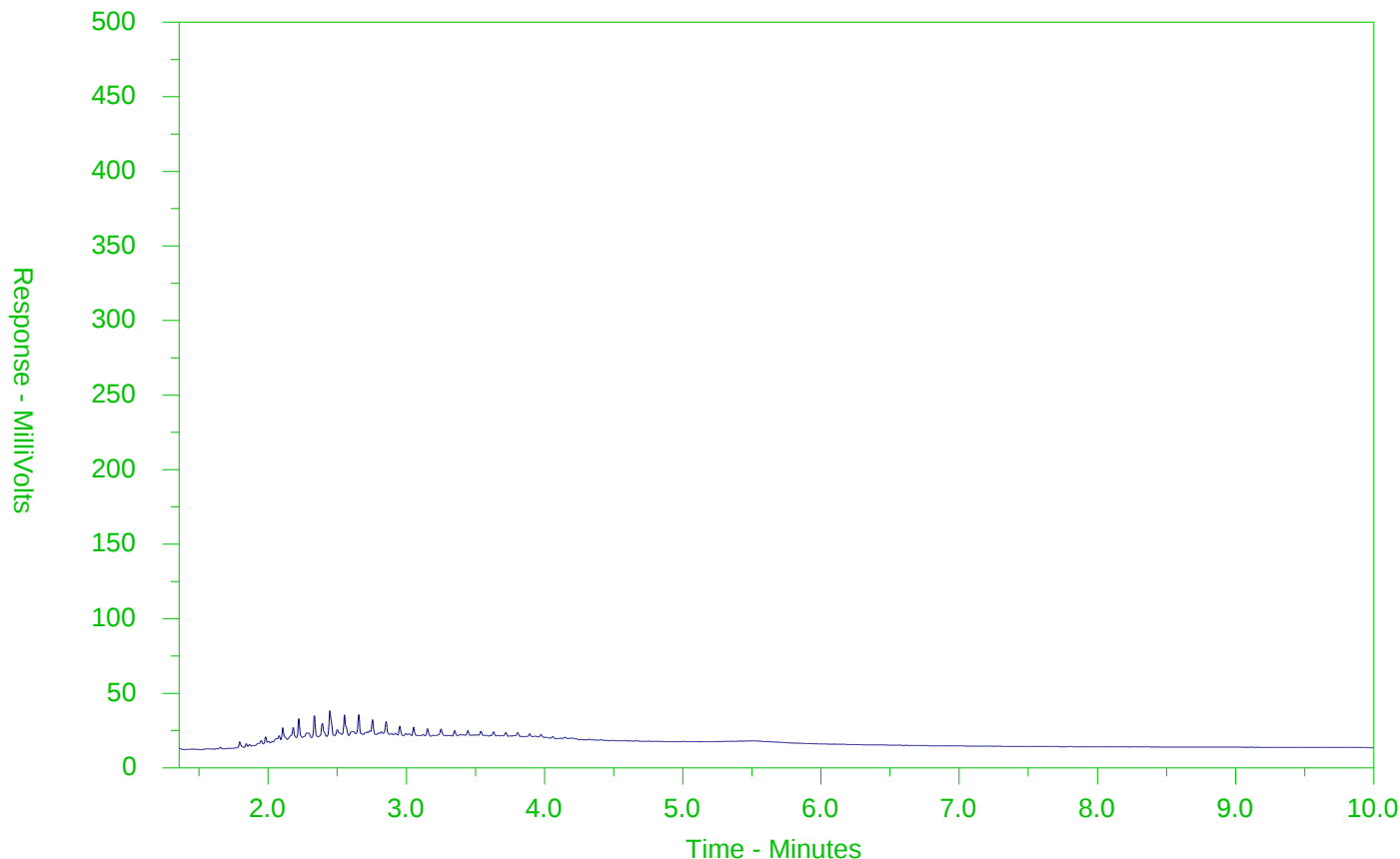
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2336967-4
Client Sample ID: BH101 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.

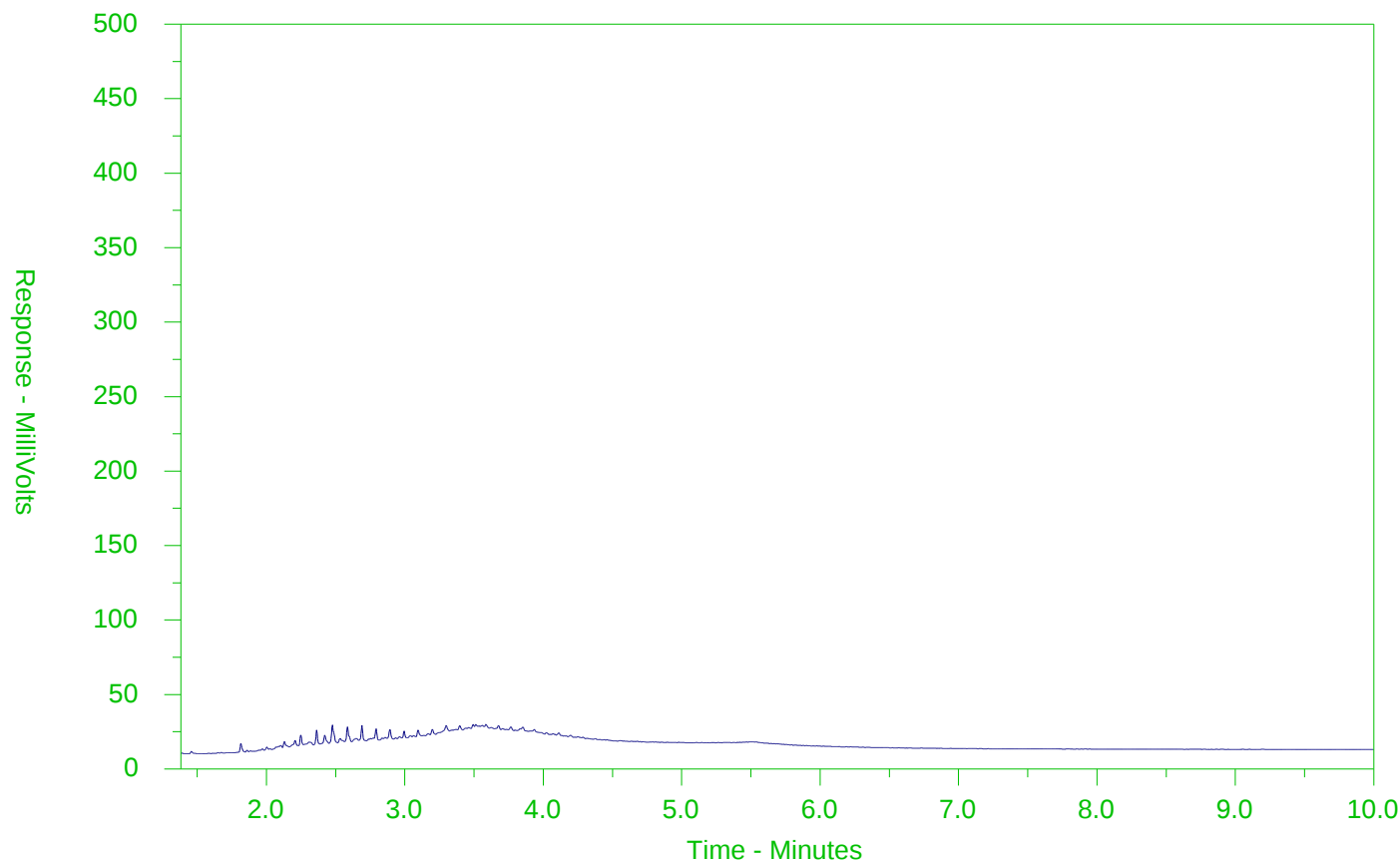
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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.

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2336967-9
Client Sample ID: BH102 SS7



← 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.

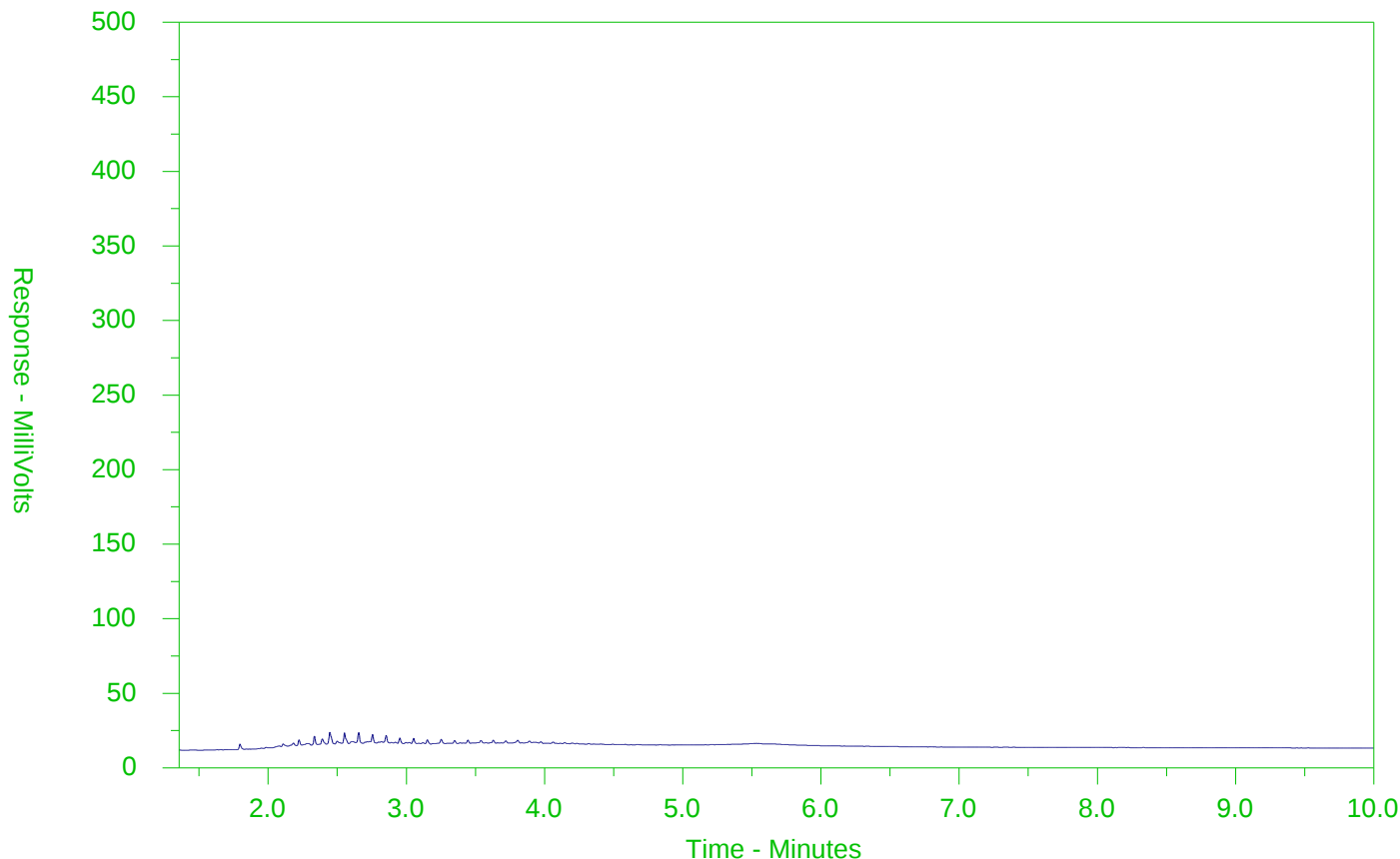
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2336967-12
Client Sample ID: BH103 SS6



← 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.

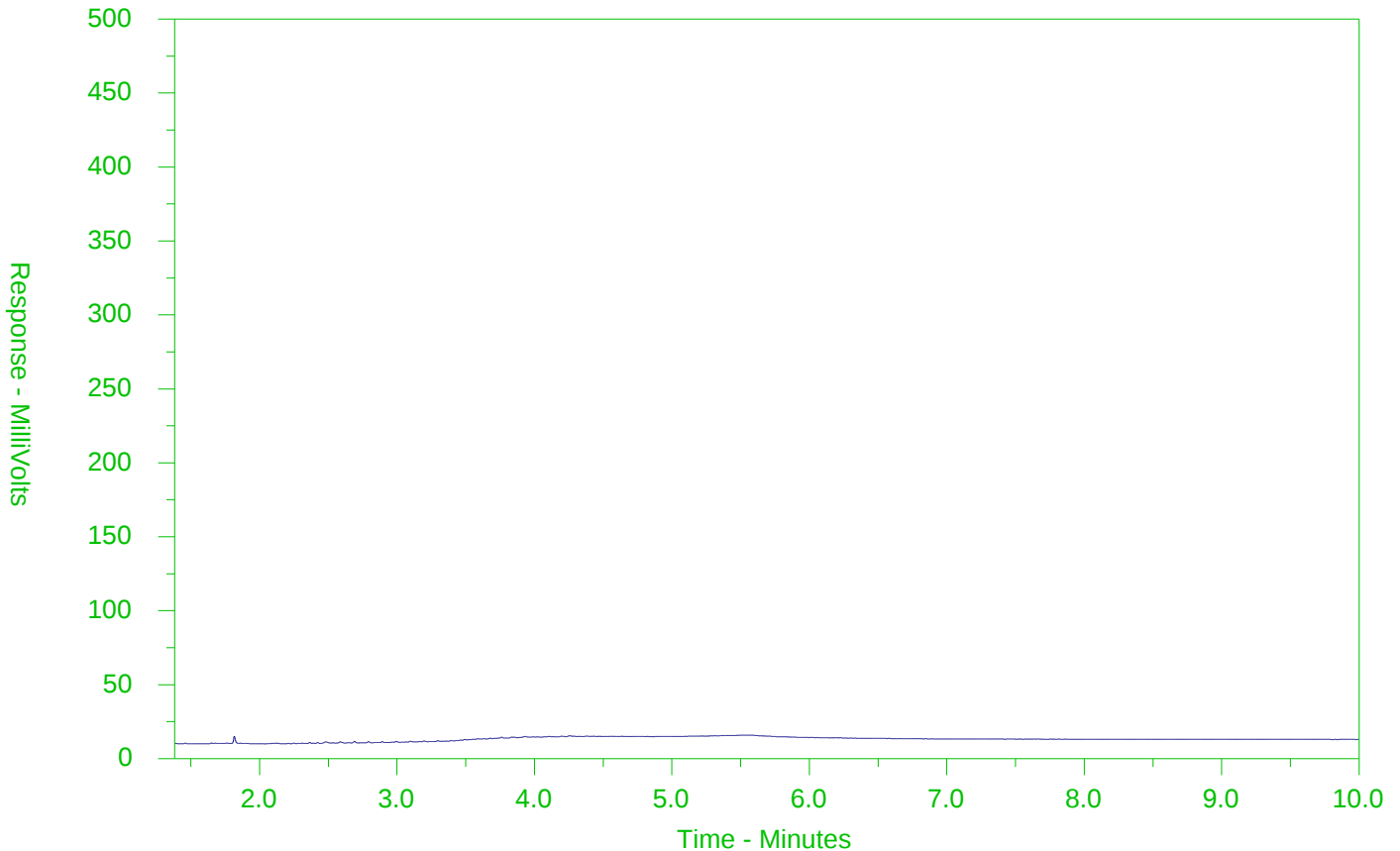
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2336967-16
Client Sample ID: BH104 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.

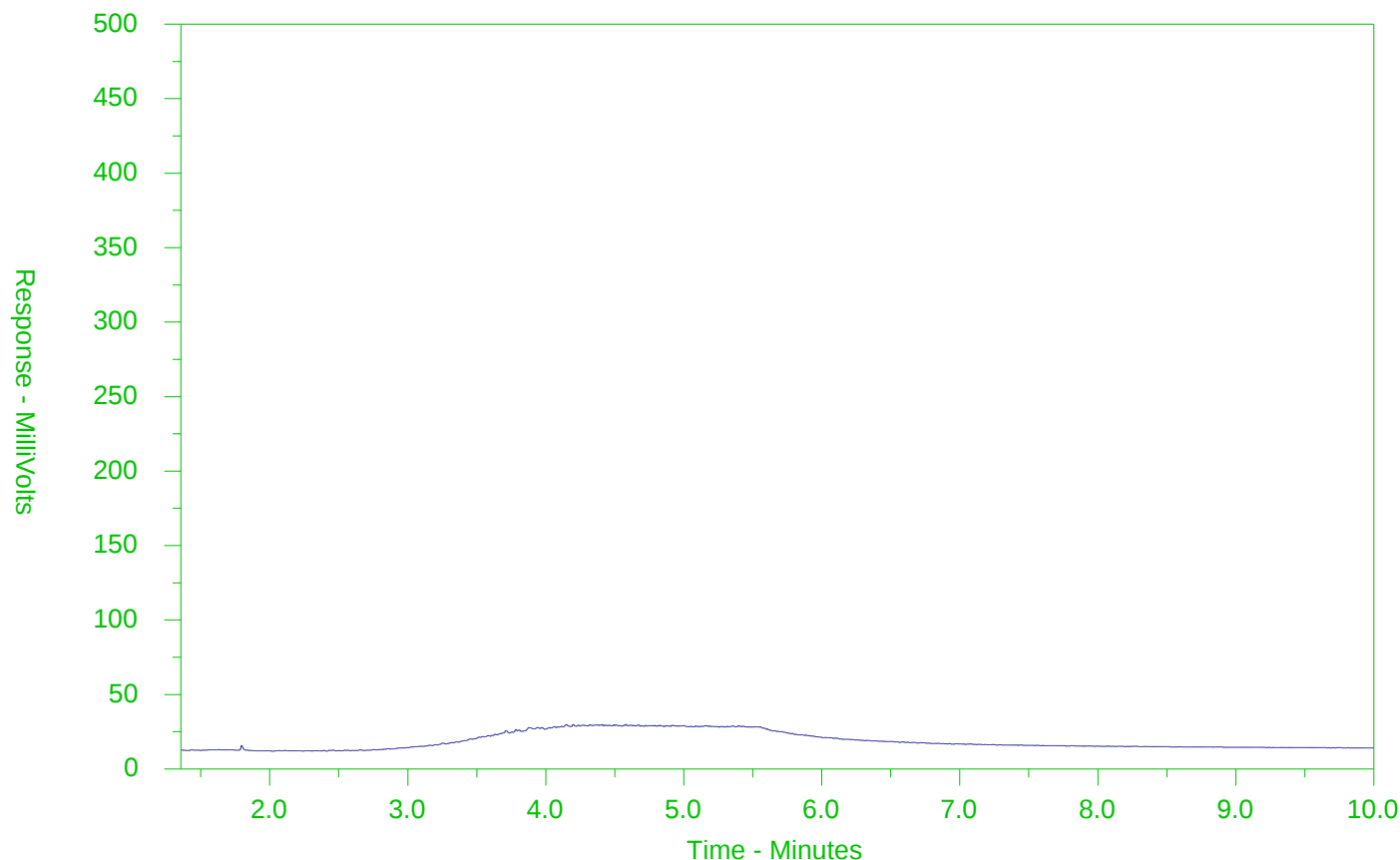
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2336967-18
Client Sample ID: BH105 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.

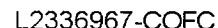
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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.



Canada Toll Free: 1 800 668 9878



COC Number: 17 -

Page 1 of 1

www.alsglobal.com

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

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**.

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

SEPT 2017 FROM



G2S ENVIRONMENTAL CONSULTING, INC.
ATTN: Jessica Boelhouwer
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Date Received: 29-AUG-19
Report Date: 05-SEP-19 12:48 (MT)
Version: FINAL

Client Phone: 905-331-3735

Certificate of Analysis

Lab Work Order #: L2338728
Project P.O. #: HAZELHURST
Job Reference: G2S19650
C of C Numbers: 17-826392
Legal Site Desc:

Joshua Scott
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						
ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)						
(No parameter exceedances)						
Ontario Regulation 153/04 - April 15, 2011 Standards - T3-Non-Potable Ground Water-All Types of Property Uses (Fine)						
(No parameter exceedances)						

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

Dissolved Metals - WATER

Analyte	Unit	Guide Limits		Lab ID		Sample Date		Sample ID	
		#1	#2	L2338728-1		L2338728-2		L2338728-3	
				28-AUG-19		28-AUG-19		28-AUG-19	
				MW101		MW102		MW104	
				MW105					
Dissolved Metals Filtration Location		-	-	FIELD	FIELD	FIELD	FIELD	FIELD	FIELD
Antimony (Sb)-Dissolved	ug/L	20000	20000	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}
Arsenic (As)-Dissolved	ug/L	1900	1900	1.0 ^{DLHC}	1.6 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}
Barium (Ba)-Dissolved	ug/L	29000	29000	146 ^{DLHC}	199 ^{DLHC}	129 ^{DLHC}	65.6 ^{DLHC}	65.6 ^{DLHC}	65.6 ^{DLHC}
Beryllium (Be)-Dissolved	ug/L	67	67	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}	<1.0 ^{DLHC}
Boron (B)-Dissolved	ug/L	45000	45000	490 ^{DLHC}	320 ^{DLHC}	190 ^{DLHC}	240 ^{DLHC}	240 ^{DLHC}	240 ^{DLHC}
Cadmium (Cd)-Dissolved	ug/L	2.7	2.7	<0.050 ^{DLHC}	<0.050 ^{DLHC}	<0.050 ^{DLHC}	<0.050 ^{DLHC}	<0.050 ^{DLHC}	<0.050 ^{DLHC}
Chromium (Cr)-Dissolved	ug/L	810	810	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}
Cobalt (Co)-Dissolved	ug/L	66	66	<1.0 ^{DLHC}	1.2 ^{DLHC}	<1.0 ^{DLHC}	1.2 ^{DLHC}	1.2 ^{DLHC}	1.2 ^{DLHC}
Copper (Cu)-Dissolved	ug/L	87	87	2.8 ^{DLHC}	<2.0 ^{DLHC}	2.7 ^{DLHC}	2.1 ^{DLHC}	2.1 ^{DLHC}	2.1 ^{DLHC}
Lead (Pb)-Dissolved	ug/L	25	25	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}
Molybdenum (Mo)-Dissolved	ug/L	9200	9200	3.21 ^{DLHC}	4.13 ^{DLHC}	3.94 ^{DLHC}	1.71 ^{DLHC}	1.71 ^{DLHC}	1.71 ^{DLHC}
Nickel (Ni)-Dissolved	ug/L	490	490	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}
Selenium (Se)-Dissolved	ug/L	63	63	0.87 ^{DLHC}	0.66 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}
Silver (Ag)-Dissolved	ug/L	1.5	1.5	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}	<0.50 ^{DLHC}
Sodium (Na)-Dissolved	ug/L	23000000	23000000	87400 ^{DLHC}	78000 ^{DLHC}	67100 ^{DLHC}	110000 ^{DLHC}	110000 ^{DLHC}	110000 ^{DLHC}
Thallium (Tl)-Dissolved	ug/L	510	510	<0.10 ^{DLHC}	<0.10 ^{DLHC}	<0.10 ^{DLHC}	<0.10 ^{DLHC}	<0.10 ^{DLHC}	<0.10 ^{DLHC}
Uranium (U)-Dissolved	ug/L	420	420	3.41 ^{DLHC}	2.94 ^{DLHC}	2.69 ^{DLHC}	1.02 ^{DLHC}	1.02 ^{DLHC}	1.02 ^{DLHC}
Vanadium (V)-Dissolved	ug/L	250	250	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}	<5.0 ^{DLHC}
Zinc (Zn)-Dissolved	ug/L	1100	1100	<10 ^{DLHC}	<10 ^{DLHC}	<10 ^{DLHC}	<10 ^{DLHC}	<10 ^{DLHC}	<10 ^{DLHC}

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

Guide Limit #2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)

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

Volatile Organic Compounds - WATER

Analyte	Unit	Guide Limits		Lab ID	Sample Date	Sample ID	L2338728-1	L2338728-2	L2338728-3	L2338728-4
		#1	#2							
Acetone	ug/L	130000	130000							
Benzene	ug/L	44	430							
Bromodichloromethane	ug/L	85000	85000							
Bromoform	ug/L	380	770							
Bromomethane	ug/L	5.6	56							
Carbon tetrachloride	ug/L	0.79	8.4							
Chlorobenzene	ug/L	630	630							
Dibromochloromethane	ug/L	82000	82000							
Chloroform	ug/L	2.4	22							
1,2-Dibromoethane	ug/L	0.25	0.83							
1,2-Dichlorobenzene	ug/L	4600	9600							
1,3-Dichlorobenzene	ug/L	9600	9600							
1,4-Dichlorobenzene	ug/L	8	67							
Dichlorodifluoromethane	ug/L	4400	4400							
1,1-Dichloroethane	ug/L	320	3100							
1,2-Dichloroethane	ug/L	1.6	12							
1,1-Dichloroethylene	ug/L	1.6	17							
cis-1,2-Dichloroethylene	ug/L	1.6	17							
trans-1,2-Dichloroethylene	ug/L	1.6	17							
Methylene Chloride	ug/L	610	5500							
1,2-Dichloropropane	ug/L	16	140							
cis-1,3-Dichloropropene	ug/L	-	-							
trans-1,3-Dichloropropene	ug/L	-	-							
1,3-Dichloropropene (cis & trans)	ug/L	5.2	45							
Ethylbenzene	ug/L	2300	2300							
n-Hexane	ug/L	51	520							
Methyl Ethyl Ketone	ug/L	470000	1500000							
Methyl Isobutyl Ketone	ug/L	140000	580000							
MTBE	ug/L	190	1400							
Styrene	ug/L	1300	9100							

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

Guide Limit #2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)

* Please refer to the Reference Information section for an explanation of any qualifiers noted.



ANALYTICAL REPORT

Volatile Organic Compounds - WATER

Analyte	Unit	Guide Limits		Lab ID	L2338728-1	L2338728-2	L2338728-3	L2338728-4
		#1	#2	Sample Date	28-AUG-19	28-AUG-19	28-AUG-19	28-AUG-19
				Sample ID	MW101	MW102	MW104	MW105
1,1,1,2-Tetrachloroethane	ug/L	3.3	28		<0.50	<0.50	<0.50	<0.50
1,1,2,2-Tetrachloroethane	ug/L	3.2	15		<0.50	<0.50	<0.50	<0.50
Tetrachloroethylene	ug/L	1.6	17		<0.50	<0.50	<0.50	<0.50
Toluene	ug/L	18000	18000		<0.50	<0.50	<0.50	<0.50
1,1,1-Trichloroethane	ug/L	640	6700		<0.50	<0.50	<0.50	<0.50
1,1,2-Trichloroethane	ug/L	4.7	30		<0.50	<0.50	<0.50	<0.50
Trichloroethylene	ug/L	1.6	17		<0.50	<0.50	<0.50	<0.50
Trichlorofluoromethane	ug/L	2500	2500		<5.0	<5.0	<5.0	<5.0
Vinyl chloride	ug/L	0.5	1.7		<0.50	<0.50	<0.50	<0.50
o-Xylene	ug/L	-	-		<0.30	<0.30	<0.30	<0.30
m+p-Xylenes	ug/L	-	-		<0.40	<0.40	<0.40	<0.40
Xylenes (Total)	ug/L	4200	4200		<0.50	<0.50	<0.50	<0.50
Surrogate: 4-Bromofluorobenzene	%	-	-		90.3	90.8	89.9	88.6
Surrogate: 1,4-Difluorobenzene	%	-	-		92.2	92.0	91.8	91.6

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

Guide Limit #2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)

 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

Hydrocarbons - WATER

Analyte	Unit	Guide Limits		Lab ID			
		#1	#2	Sample Date		Sample ID	
F1 (C6-C10)	ug/L	750	750	<25	<25	<25	<25
F1-BTEX	ug/L	750	750	<25	<25	<25	<25
F2 (C10-C16)	ug/L	150	150	<100	<100	<100	<100
F2-Naphth	ug/L	-	-	<100	<100	<100	<100
F3 (C16-C34)	ug/L	500	500	<250	<250	<250	<250
F3-PAH	ug/L	-	-	<250	<250	<250	<250
F4 (C34-C50)	ug/L	500	500	<250	<250	<250	<250
Total Hydrocarbons (C6-C50)	ug/L	-	-	<370	<370	<370	<370
Chrom. to baseline at nC50		-	-	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	85.8	82.6	85.0	75.9
Surrogate: 3,4-Dichlorotoluene	%	-	-	76.9	76.6	81.6	79.0

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

Guide Limit #2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)

 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 - WATER

Analyte	Unit	Guide Limits		Lab ID			
		#1	#2	Sample Date		Sample ID	
Acenaphthene	ug/L	600	1700	<0.020	<0.020	<0.020	<0.020
Acenaphthylene	ug/L	1.8	1.8	<0.020	<0.020	<0.020	<0.020
Anthracene	ug/L	2.4	2.4	<0.020	<0.020	<0.020	0.020
Benzo(a)anthracene	ug/L	4.7	4.7	<0.020	<0.020	<0.020	0.075
Benzo(a)pyrene	ug/L	0.81	0.81	<0.010	<0.010	<0.010	0.069
Benzo(b)fluoranthene	ug/L	0.75	0.75	<0.020	<0.020	<0.020	0.080
Benzo(g,h,i)perylene	ug/L	0.2	0.2	<0.020	<0.020	<0.020	0.053
Benzo(k)fluoranthene	ug/L	0.4	0.4	<0.020	<0.020	<0.020	0.029
Chrysene	ug/L	1	1	<0.020	<0.020	<0.020	0.064
Dibenzo(ah)anthracene	ug/L	0.52	0.52	<0.020	<0.020	<0.020	<0.020
Fluoranthene	ug/L	130	130	<0.020	<0.020	0.024	0.138
Fluorene	ug/L	400	400	<0.020	<0.020	<0.020	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	0.2	<0.020	<0.020	<0.020	0.049
1+2-Methylnaphthalenes	ug/L	1800	1800	<0.028	<0.028	<0.028	<0.028
1-Methylnaphthalene	ug/L	1800	1800	<0.020	<0.020	<0.020	<0.020
2-Methylnaphthalene	ug/L	1800	1800	<0.020	<0.020	<0.020	<0.020
Naphthalene	ug/L	1400	6400	<0.050	<0.050	<0.050	<0.050
Phenanthrene	ug/L	580	580	0.020	<0.020	0.020	0.067
Pyrene	ug/L	68	68	<0.020	<0.020	0.027	0.133
Surrogate: d10-Acenaphthene	%	-	-	105.5	97.5	107.0	99.7
Surrogate: d12-Chrysene	%	-	-	106.7	98.8	102.9	99.5
Surrogate: d8-Naphthalene	%	-	-	105.4	99.2	110.2	100.6
Surrogate: d10-Phenanthrene	%	-	-	100.1	92.4	100.2	101.9

Guide Limit #1: T3-Non-Potable Ground Water-All Types of Property Uses (Coarse)

Guide Limit #2: T3-Non-Potable Ground Water-All Types of Property Uses (Fine)

 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.

* Please refer to the Reference Information section for an explanation of any qualifiers noted.

Reference Information

Qualifiers for Individual Parameters Listed:

Qualifier	Description
-----------	-------------

DLHC Detection Limit Raised: Dilution required due to high concentration of test analyte(s).

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
---------------	--------	------------------	--------------------

F1-F4-511-CALC-WT	Water	F1-F4 Hydrocarbon Calculated Parameters	CCME CWS-PHC, Pub #1310, Dec 2001-L
--------------------------	-------	---	-------------------------------------

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

In cases where results for both F4 and F4G are reported, the greater of the two results must be used in any application of the CWS PHC guidelines and the gravimetric heavy hydrocarbons cannot be added to the C6 to C50 hydrocarbons.

In samples where BTEX and F1 were analyzed , F1-BTEX represents a value where the sum of Benzene, Toluene, Ethylbenzene and total Xylenes has been subtracted from F1.

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

Unless otherwise qualified, the following quality control criteria have been met for the F1 hydrocarbon range:

1. All extraction and analysis holding times were met.
2. Instrument performance showing response factors for C6 and C10 within 30% of the response factor for toluene.
3. Linearity of gasoline response within 15% throughout the calibration range.

Unless otherwise qualified, the following quality control criteria have been met for the F2-F4 hydrocarbon ranges:

1. All extraction and analysis holding times were met.
2. Instrument performance showing C10, C16 and C34 response factors within 10% of their average.
3. Instrument performance showing the C50 response factor within 30% of the average of the C10, C16 and C34 response factors.
4. Linearity of diesel or motor oil response within 15% throughout the calibration range.

F1-HS-511-WT	Water	F1-O.Reg 153/04 (July 2011)	E3398/CCME TIER 1-HS
---------------------	-------	-----------------------------	----------------------

Fraction F1 is determined by 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), 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	Water	F2-F4-O.Reg 153/04 (July 2011)	EPA 3511/CCME Tier 1
---------------------	-------	--------------------------------	----------------------

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

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).

MET-D-UG/L-MS-WT	Water	Diss. Metals in Water by ICPMS (ug/L)	EPA 200.8
-------------------------	-------	---------------------------------------	-----------

The metal constituents of a non-acidified sample that pass through a membrane filter prior to ICP/MS analysis.

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	Water	PAH-Calculated Parameters	SW846 8270
---------------------------	-------	---------------------------	------------

PAH-511-WT	Water	PAH-O. Reg 153/04 (July 2011)	SW846 3510/8270
-------------------	-------	-------------------------------	-----------------

Aqueous samples, fortified with surrogates, are extracted using liquid/liquid extraction technique. The sample extracts are concentrated and then analyzed using GC/MS. Results for benzo(b)

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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), 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	Water	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Water	VOC by GCMS HS O.Reg 153/04 (July 2011)	SW846 8260
Liquid samples are analyzed by headspace GC/MSD.			
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).			
XYLENES-SUM-CALC-WT	Water	Sum of Xylene Isomer Concentrations	CALCULATION
Total xylenes represents the sum of o-xylene and m&p-xylene.			

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

Chain of Custody Numbers:

17-826392

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

GLOSSARY OF REPORT TERMS

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

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

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

mg/kg lwt - milligrams per kilogram based on lipid-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: L2338728

Report Date: 05-SEP-19

Page 1 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT		Water						
Batch	R4783314							
WG3150016-4	DUP	WG3150016-3						
F1 (C6-C10)		729	695		ug/L	4.8	30	05-SEP-19
WG3150016-1	LCS							
F1 (C6-C10)			84.6		%		80-120	04-SEP-19
WG3150016-2	MB							
F1 (C6-C10)			<25		ug/L		25	05-SEP-19
Surrogate: 3,4-Dichlorotoluene			96.2		%		60-140	05-SEP-19
WG3150016-5	MS	WG3150016-3						
F1 (C6-C10)			89.0		%		60-140	05-SEP-19
F2-F4-511-WT		Water						
Batch	R4781173							
WG3148128-2	LCS							
F2 (C10-C16)			93.1		%		70-130	30-AUG-19
F3 (C16-C34)			91.5		%		70-130	30-AUG-19
F4 (C34-C50)			92.9		%		70-130	30-AUG-19
WG3148128-1	MB							
F2 (C10-C16)			<100		ug/L		100	30-AUG-19
F3 (C16-C34)			<250		ug/L		250	30-AUG-19
F4 (C34-C50)			<250		ug/L		250	30-AUG-19
Surrogate: 2-Bromobenzotrifluoride			73.5		%		60-140	30-AUG-19
MET-D-UG/L-MS-WT		Water						
Batch	R4779908							
WG3149041-4	DUP	WG3149041-3						
Antimony (Sb)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Arsenic (As)-Dissolved		1.5	1.5		ug/L	1.8	20	30-AUG-19
Barium (Ba)-Dissolved		168	171		ug/L	1.4	20	30-AUG-19
Beryllium (Be)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Boron (B)-Dissolved		<100	<100	RPD-NA	ug/L	N/A	20	30-AUG-19
Cadmium (Cd)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	30-AUG-19
Chromium (Cr)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Cobalt (Co)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Copper (Cu)-Dissolved		<2.0	<2.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Lead (Pb)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-AUG-19
Molybdenum (Mo)-Dissolved		2.11	2.16		ug/L	2.5	20	30-AUG-19
Nickel (Ni)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	30-AUG-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 2 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT		Water						
Batch	R4779908							
WG3149041-4 DUP		WG3149041-3						
Selenium (Se)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-AUG-19
Silver (Ag)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	30-AUG-19
Sodium (Na)-Dissolved		1180000	1180000		ug/L	0.2	20	30-AUG-19
Thallium (Tl)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	30-AUG-19
Uranium (U)-Dissolved		0.99	1.02		ug/L	3.6	20	30-AUG-19
Vanadium (V)-Dissolved		<5.0	<5.0	RPD-NA	ug/L	N/A	20	30-AUG-19
Zinc (Zn)-Dissolved		<10	<10	RPD-NA	ug/L	N/A	20	30-AUG-19
WG3149041-2 LCS								
Antimony (Sb)-Dissolved			102.0		%		80-120	30-AUG-19
Arsenic (As)-Dissolved			100.5		%		80-120	30-AUG-19
Barium (Ba)-Dissolved			102.1		%		80-120	30-AUG-19
Beryllium (Be)-Dissolved			94.0		%		80-120	30-AUG-19
Boron (B)-Dissolved			91.5		%		80-120	30-AUG-19
Cadmium (Cd)-Dissolved			100.2		%		80-120	30-AUG-19
Chromium (Cr)-Dissolved			102.4		%		80-120	30-AUG-19
Cobalt (Co)-Dissolved			100.8		%		80-120	30-AUG-19
Copper (Cu)-Dissolved			100.6		%		80-120	30-AUG-19
Lead (Pb)-Dissolved			99.7		%		80-120	30-AUG-19
Molybdenum (Mo)-Dissolved			104.3		%		80-120	30-AUG-19
Nickel (Ni)-Dissolved			100.7		%		80-120	30-AUG-19
Selenium (Se)-Dissolved			99.1		%		80-120	30-AUG-19
Silver (Ag)-Dissolved			98.7		%		80-120	30-AUG-19
Sodium (Na)-Dissolved			103.3		%		80-120	30-AUG-19
Thallium (Tl)-Dissolved			99.7		%		80-120	30-AUG-19
Uranium (U)-Dissolved			97.2		%		80-120	30-AUG-19
Vanadium (V)-Dissolved			103.2		%		80-120	30-AUG-19
Zinc (Zn)-Dissolved			96.9		%		80-120	30-AUG-19
WG3149041-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	30-AUG-19
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	30-AUG-19
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	30-AUG-19
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	30-AUG-19
Boron (B)-Dissolved			<10		ug/L		10	30-AUG-19
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	30-AUG-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 4 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT		Water						
Batch	R4782548							
WG3148128-2	LCS							
1-Methylnaphthalene			92.7		%		50-140	04-SEP-19
2-Methylnaphthalene			86.1		%		50-140	04-SEP-19
Acenaphthene			93.1		%		50-140	04-SEP-19
Acenaphthylene			91.6		%		50-140	04-SEP-19
Anthracene			90.6		%		50-140	04-SEP-19
Benzo(a)anthracene			94.6		%		50-140	04-SEP-19
Benzo(a)pyrene			94.4		%		50-140	04-SEP-19
Benzo(b)fluoranthene			88.6		%		50-140	04-SEP-19
Benzo(g,h,i)perylene			102.2		%		50-140	04-SEP-19
Benzo(k)fluoranthene			92.5		%		50-140	04-SEP-19
Chrysene			97.0		%		50-140	04-SEP-19
Dibenzo(ah)anthracene			95.5		%		50-140	04-SEP-19
Fluoranthene			93.5		%		50-140	04-SEP-19
Fluorene			89.2		%		50-140	04-SEP-19
Indeno(1,2,3-cd)pyrene			107.0		%		50-140	04-SEP-19
Naphthalene			95.1		%		50-140	04-SEP-19
Phenanthrene			95.4		%		50-140	04-SEP-19
Pyrene			98.2		%		50-140	04-SEP-19
WG3148128-1	MB							
1-Methylnaphthalene			<0.020		ug/L		0.02	04-SEP-19
2-Methylnaphthalene			<0.020		ug/L		0.02	04-SEP-19
Acenaphthene			<0.020		ug/L		0.02	04-SEP-19
Acenaphthylene			<0.020		ug/L		0.02	04-SEP-19
Anthracene			<0.020		ug/L		0.02	04-SEP-19
Benzo(a)anthracene			<0.020		ug/L		0.02	04-SEP-19
Benzo(a)pyrene			<0.010		ug/L		0.01	04-SEP-19
Benzo(b)fluoranthene			<0.020		ug/L		0.02	04-SEP-19
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	04-SEP-19
Benzo(k)fluoranthene			<0.020		ug/L		0.02	04-SEP-19
Chrysene			<0.020		ug/L		0.02	04-SEP-19
Dibenzo(ah)anthracene			<0.020		ug/L		0.02	04-SEP-19
Fluoranthene			<0.020		ug/L		0.02	04-SEP-19
Fluorene			<0.020		ug/L		0.02	04-SEP-19
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	04-SEP-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 5 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT								
Water								
Batch	R4782548							
WG3148128-1 MB								
Naphthalene			<0.050		ug/L		0.05	04-SEP-19
Phenanthrene			<0.020		ug/L		0.02	04-SEP-19
Pyrene			<0.020		ug/L		0.02	04-SEP-19
Surrogate: d8-Naphthalene			103.5		%		60-140	04-SEP-19
Surrogate: d10-Phenanthrene			104.4		%		60-140	04-SEP-19
Surrogate: d12-Chrysene			106.1		%		60-140	04-SEP-19
Surrogate: d10-Acenaphthene			100.0		%		60-140	04-SEP-19
VOC-511-HS-WT								
Water								
Batch	R4783314							
WG3150016-4 DUP		WG3150016-3						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	05-SEP-19
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Acetone		N/A	40		ug/L	0.7	30	05-SEP-19
Benzene		40.8	40.8		ug/L	0.0	30	05-SEP-19
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-SEP-19
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	05-SEP-19
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	05-SEP-19
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	05-SEP-19
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
cis-1,3-Dichloropropene		<1.2	<1.7	RPD-NA	ug/L	N/A	30	05-SEP-19
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-SEP-19

Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 6 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R4783314							
WG3150016-4 DUP		WG3150016-3						
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-SEP-19
Ethylbenzene		51.9	51.7		ug/L	0.4	30	05-SEP-19
n-Hexane		0.75	0.76		ug/L	1.3	30	05-SEP-19
m+p-Xylenes		191	190		ug/L	0.4	30	05-SEP-19
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	05-SEP-19
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	05-SEP-19
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	05-SEP-19
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	05-SEP-19
o-Xylene		79.8	80.1		ug/L	0.4	30	05-SEP-19
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Toluene		144	144		ug/L	0.1	30	05-SEP-19
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	05-SEP-19
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	05-SEP-19
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	05-SEP-19
WG3150016-1 LCS								
1,1,1,2-Tetrachloroethane			107.0		%		70-130	04-SEP-19
1,1,2,2-Tetrachloroethane			114.6		%		70-130	04-SEP-19
1,1,1-Trichloroethane			102.5		%		70-130	04-SEP-19
1,1,2-Trichloroethane			109.6		%		70-130	04-SEP-19
1,1-Dichloroethane			108.6		%		70-130	04-SEP-19
1,1-Dichloroethylene			100.4		%		70-130	04-SEP-19
1,2-Dibromoethane			111.6		%		70-130	04-SEP-19
1,2-Dichlorobenzene			107.4		%		70-130	04-SEP-19
1,2-Dichloroethane			111.9		%		70-130	04-SEP-19
1,2-Dichloropropane			109.1		%		70-130	04-SEP-19
1,3-Dichlorobenzene			105.3		%		70-130	04-SEP-19
1,4-Dichlorobenzene			105.8		%		70-130	04-SEP-19
Acetone			130.2		%		60-140	04-SEP-19
Benzene			108.5		%		70-130	04-SEP-19
Bromodichloromethane			108.3		%		70-130	04-SEP-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 7 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R4783314							
WG3150016-1	LCS							
Bromoform			111.0		%		70-130	04-SEP-19
Bromomethane			100.6		%		60-140	04-SEP-19
Carbon tetrachloride			103.1		%		70-130	04-SEP-19
Chlorobenzene			104.0		%		70-130	04-SEP-19
Chloroform			108.4		%		70-130	04-SEP-19
cis-1,2-Dichloroethylene			103.4		%		70-130	04-SEP-19
cis-1,3-Dichloropropene			108.8		%		70-130	04-SEP-19
Dibromochloromethane			107.1		%		70-130	04-SEP-19
Dichlorodifluoromethane			111.1		%		50-140	04-SEP-19
Ethylbenzene			96.4		%		70-130	04-SEP-19
n-Hexane			97.8		%		70-130	04-SEP-19
m+p-Xylenes			100.0		%		70-130	04-SEP-19
Methyl Ethyl Ketone			111.2		%		60-140	04-SEP-19
Methyl Isobutyl Ketone			103.6		%		60-140	04-SEP-19
Methylene Chloride			109.5		%		70-130	04-SEP-19
MTBE			102.2		%		70-130	04-SEP-19
o-Xylene			100.3		%		70-130	04-SEP-19
Styrene			101.8		%		70-130	04-SEP-19
Tetrachloroethylene			103.8		%		70-130	04-SEP-19
Toluene			101.8		%		70-130	04-SEP-19
trans-1,2-Dichloroethylene			103.7		%		70-130	04-SEP-19
trans-1,3-Dichloropropene			112.5		%		70-130	04-SEP-19
Trichloroethylene			102.0		%		70-130	04-SEP-19
Trichlorofluoromethane			103.2		%		60-140	04-SEP-19
Vinyl chloride			120.2		%		60-140	04-SEP-19
WG3150016-2	MB							
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	05-SEP-19
1,1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	05-SEP-19
1,1,1-Trichloroethane			<0.50		ug/L		0.5	05-SEP-19
1,1,2-Trichloroethane			<0.50		ug/L		0.5	05-SEP-19
1,1-Dichloroethane			<0.50		ug/L		0.5	05-SEP-19
1,1-Dichloroethylene			<0.50		ug/L		0.5	05-SEP-19
1,2-Dibromoethane			<0.20		ug/L		0.2	05-SEP-19
1,2-Dichlorobenzene			<0.50		ug/L		0.5	05-SEP-19



Environmental

Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 8 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R4783314							
WG3150016-2	MB							
1,2-Dichloroethane			<0.50		ug/L		0.5	05-SEP-19
1,2-Dichloropropane			<0.50		ug/L		0.5	05-SEP-19
1,3-Dichlorobenzene			<0.50		ug/L		0.5	05-SEP-19
1,4-Dichlorobenzene			<0.50		ug/L		0.5	05-SEP-19
Acetone			<30		ug/L		30	05-SEP-19
Benzene			<0.50		ug/L		0.5	05-SEP-19
Bromodichloromethane			<2.0		ug/L		2	05-SEP-19
Bromoform			<5.0		ug/L		5	05-SEP-19
Bromomethane			<0.50		ug/L		0.5	05-SEP-19
Carbon tetrachloride			<0.20		ug/L		0.2	05-SEP-19
Chlorobenzene			<0.50		ug/L		0.5	05-SEP-19
Chloroform			<1.0		ug/L		1	05-SEP-19
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	05-SEP-19
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	05-SEP-19
Dibromochloromethane			<2.0		ug/L		2	05-SEP-19
Dichlorodifluoromethane			<2.0		ug/L		2	05-SEP-19
Ethylbenzene			<0.50		ug/L		0.5	05-SEP-19
n-Hexane			<0.50		ug/L		0.5	05-SEP-19
m+p-Xylenes			<0.40		ug/L		0.4	05-SEP-19
Methyl Ethyl Ketone			<20		ug/L		20	05-SEP-19
Methyl Isobutyl Ketone			<20		ug/L		20	05-SEP-19
Methylene Chloride			<5.0		ug/L		5	05-SEP-19
MTBE			<2.0		ug/L		2	05-SEP-19
o-Xylene			<0.30		ug/L		0.3	05-SEP-19
Styrene			<0.50		ug/L		0.5	05-SEP-19
Tetrachloroethylene			<0.50		ug/L		0.5	05-SEP-19
Toluene			<0.50		ug/L		0.5	05-SEP-19
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	05-SEP-19
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	05-SEP-19
Trichloroethylene			<0.50		ug/L		0.5	05-SEP-19
Trichlorofluoromethane			<5.0		ug/L		5	05-SEP-19
Vinyl chloride			<0.50		ug/L		0.5	05-SEP-19
Surrogate: 1,4-Difluorobenzene			91.1		%		70-130	05-SEP-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 9 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT		Water						
Batch	R4783314							
WG3150016-2	MB							
Surrogate: 4-Bromofluorobenzene			89.3		%		70-130	05-SEP-19
WG3150016-5	MS	WG3150016-3						
1,1,1,2-Tetrachloroethane			107.8		%		50-140	05-SEP-19
1,1,2,2-Tetrachloroethane			139.4		%		50-140	05-SEP-19
1,1,1-Trichloroethane			100.6		%		50-140	05-SEP-19
1,1,2-Trichloroethane			116.2		%		50-140	05-SEP-19
1,1-Dichloroethane			104.6		%		50-140	05-SEP-19
1,1-Dichloroethylene			92.1		%		50-140	05-SEP-19
1,2-Dibromoethane			119.5		%		50-140	05-SEP-19
1,2-Dichlorobenzene			107.7		%		50-140	05-SEP-19
1,2-Dichloroethane			117.2		%		50-140	05-SEP-19
1,2-Dichloropropane			112.6		%		50-140	05-SEP-19
1,3-Dichlorobenzene			101.9		%		50-140	05-SEP-19
1,4-Dichlorobenzene			103.7		%		50-140	05-SEP-19
Acetone			123.9		%		50-140	05-SEP-19
Benzene			105.2		%		50-140	05-SEP-19
Bromodichloromethane			111.1		%		50-140	05-SEP-19
Bromoform			118.8		%		50-140	05-SEP-19
Bromomethane			90.3		%		50-140	05-SEP-19
Carbon tetrachloride			96.9		%		50-140	05-SEP-19
Chlorobenzene			103.8		%		50-140	05-SEP-19
Chloroform			107.8		%		50-140	05-SEP-19
cis-1,2-Dichloroethylene			102.9		%		50-140	05-SEP-19
cis-1,3-Dichloropropene			117.6		%		50-140	05-SEP-19
Dibromochloromethane			111.0		%		50-140	05-SEP-19
Dichlorodifluoromethane			85.5		%		50-140	05-SEP-19
Ethylbenzene			97.1		%		50-140	05-SEP-19
n-Hexane			87.2		%		50-140	05-SEP-19
m+p-Xylenes			98.1		%		50-140	05-SEP-19
Methyl Ethyl Ketone			117.3		%		50-140	05-SEP-19
Methyl Isobutyl Ketone			123.4		%		50-140	05-SEP-19
Methylene Chloride			105.1		%		50-140	05-SEP-19
MTBE			102.4		%		50-140	05-SEP-19
o-Xylene			102.0		%		50-140	05-SEP-19



Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Page 10 of 11

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5

Contact: Jessica Boelhouwer

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	Water							
Batch	R4783314							
WG3150016-5 MS		WG3150016-3						
Styrene			105.1		%		50-140	05-SEP-19
Tetrachloroethylene			95.8		%		50-140	05-SEP-19
Toluene			N/A	MS-B	%		-	05-SEP-19
trans-1,2-Dichloroethylene			98.1		%		50-140	05-SEP-19
trans-1,3-Dichloropropene			115.0		%		50-140	05-SEP-19
Trichloroethylene			99.0		%		50-140	05-SEP-19
Trichlorofluoromethane			92.1		%		50-140	05-SEP-19
Vinyl chloride			105.0		%		50-140	05-SEP-19

Quality Control Report

Workorder: L2338728

Report Date: 05-SEP-19

Client: G2S ENVIRONMENTAL CONSULTING, INC.
5-5100 SOUTH SERVICE ROAD
BURLINGTON ON L7L6A5
Contact: Jessica Boelhauer

Page 11 of 11

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
MS-B	Matrix Spike recovery could not be accurately calculated due to high analyte background in sample.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

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

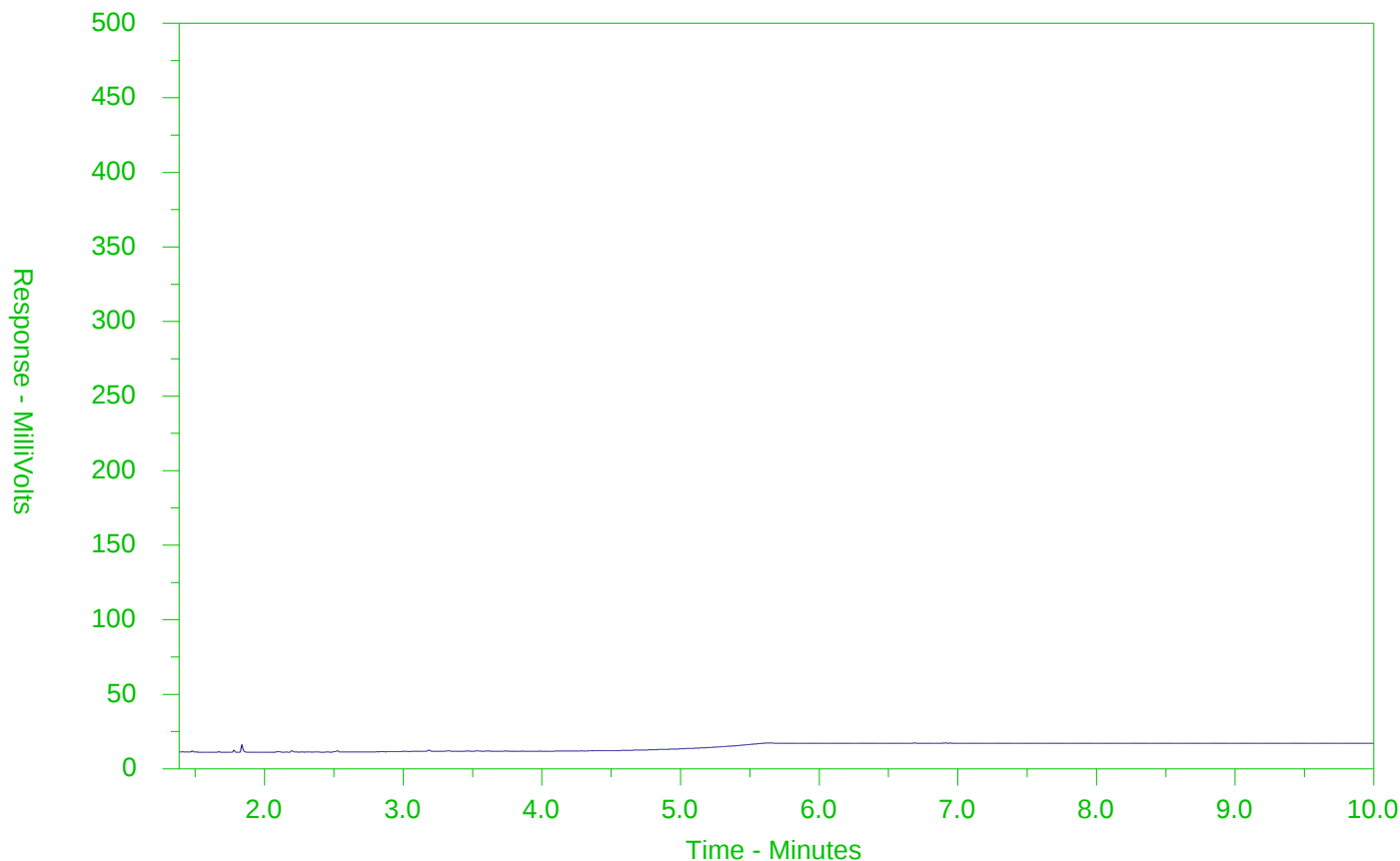
The ALS Quality Control Report is provided to ALS clients upon request. ALS includes comprehensive QC checks with every analysis to ensure our high standards of quality are met. Each QC result has a known or expected target value, which is compared against pre-determined data quality objectives to provide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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT



ALS Sample ID: L2338728-1
Client Sample ID: MW101



← 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.

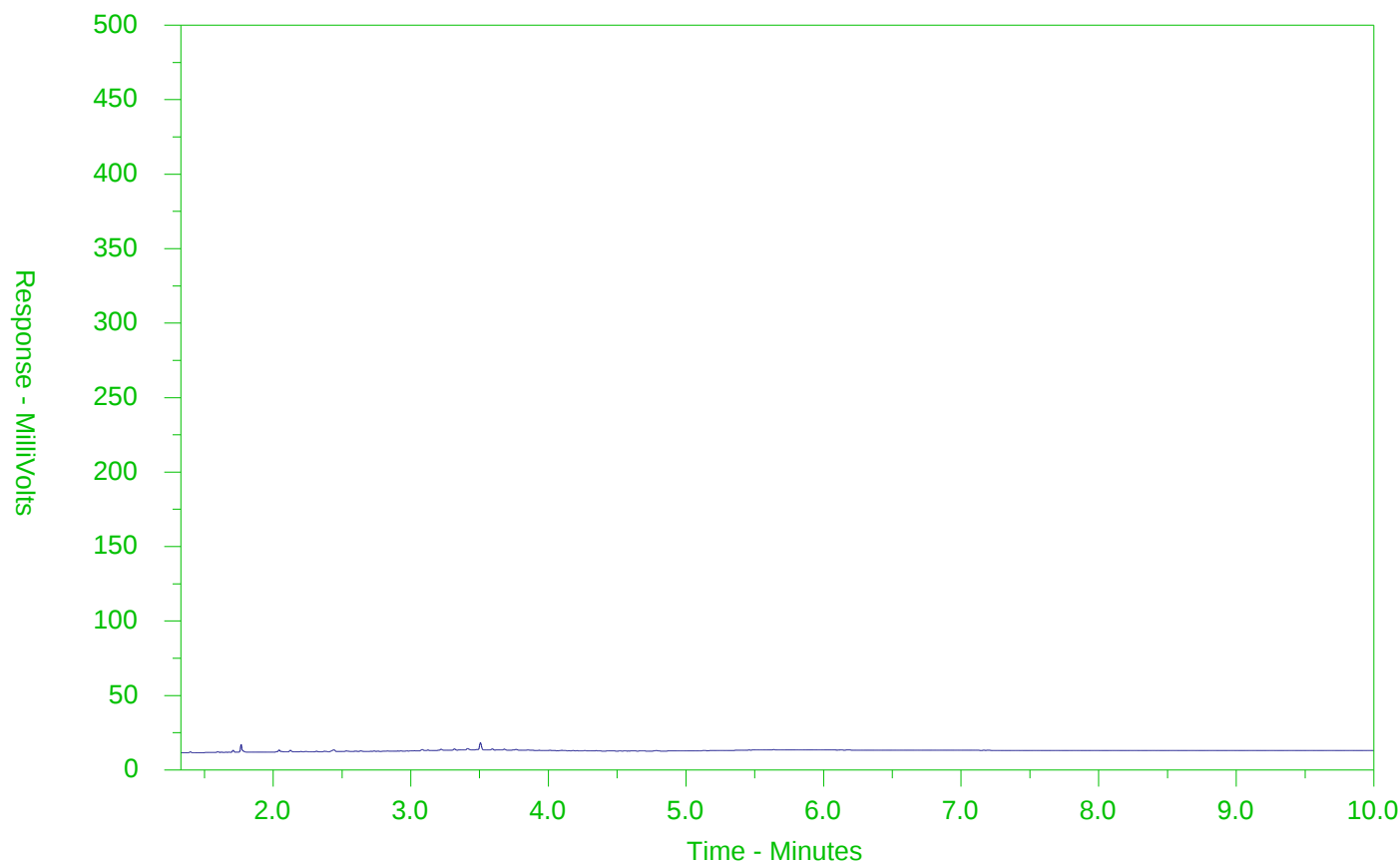
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2338728-2
Client Sample ID: MW102



← 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.

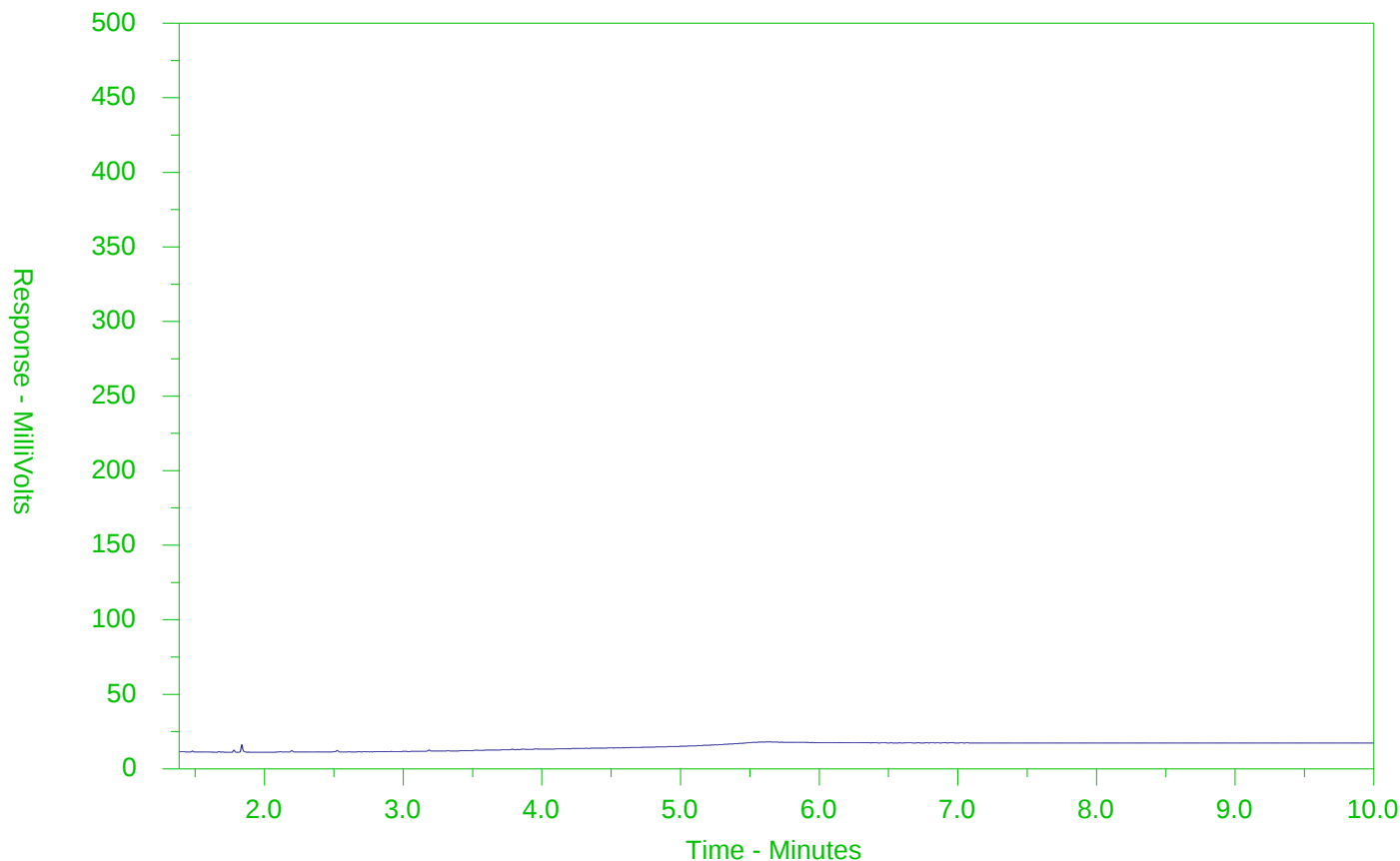
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2338728-3
Client Sample ID: MW104



← 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.

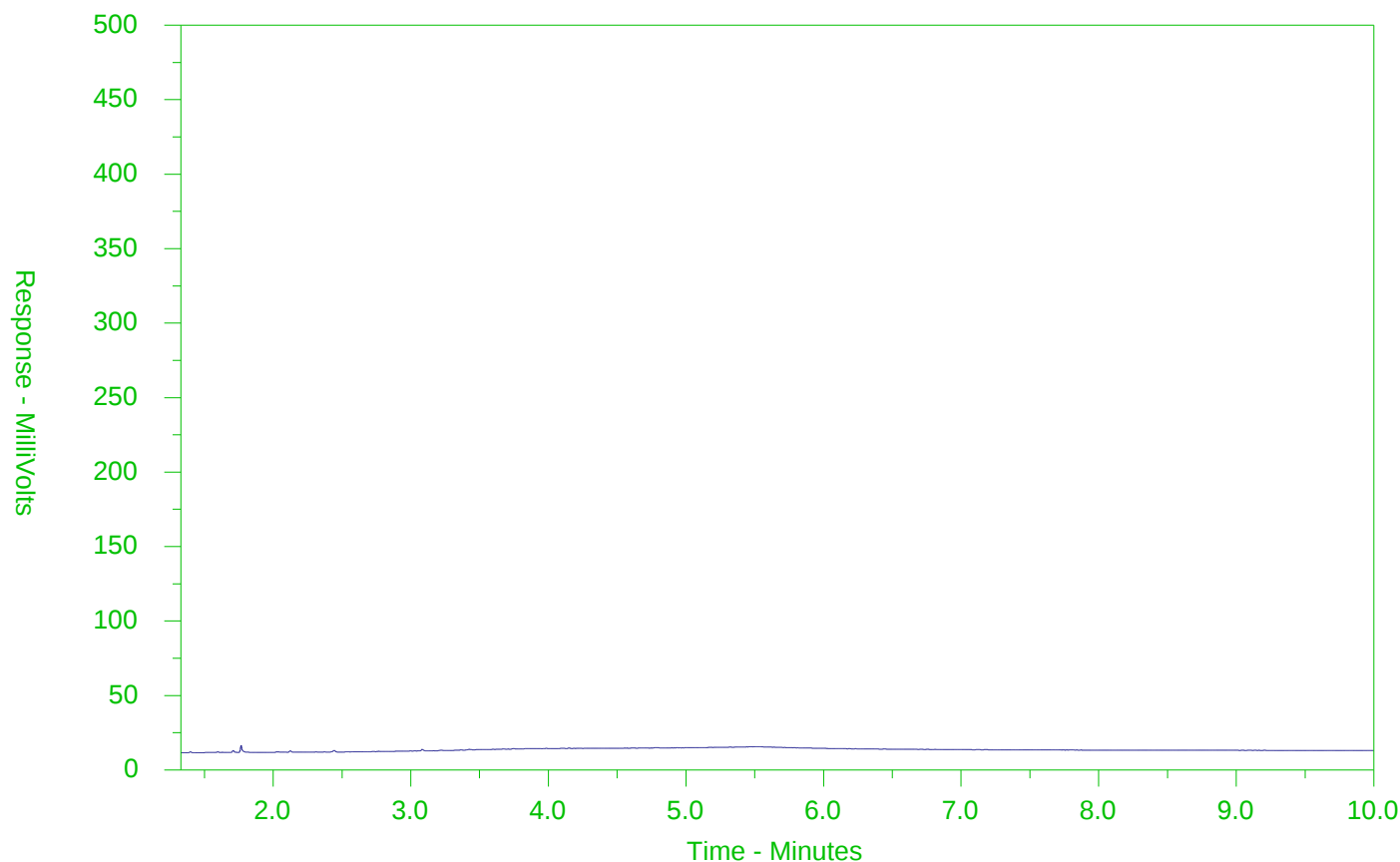
Peak heights in this report are a function of the sample concentration, the sample amount extracted, the sample dilution factor and the scale at the left.

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: L2338728-4
Client Sample ID: MW105



← 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



L2338728-COFC

OC Number: 17 - 826392

Page 1 of 1

www.alsglobal.com

[illegible]

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY

YELLOW - CLIENT COPY

JUNE 2018 FROM

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