PHASE II ENVIRONMENTAL SITE ASSESSMENT

PREPARED FOR:
Almega Asset Management
2811 Dufferin St
Mississauga, ON

ATTENTION:
Spencer Shafran

60 Dundas Street East | Mississauga, Ontario

Grounded Engineering Inc.
File No. 21-067
Issued June 30, 2021

12 Banigan Drive, Toronto ON M4H 1E9 | (647) 264-7909 | groundedeng.ca | Grounded Engineering

TABLE OF CONTENTS

FIGURES

APPENDICES

1 Executive Summary

Almega Asset Management retained Grounded Engineering Inc. to complete a Phase II Environmental Site Assessment (ESA) of the property located at 60 Dundas Street East, Mississauga, Ontario (Property). The Phase II ESA was conducted for due diligence purposes and to investigate the Areas of Potential Environmental Concern (APECs) that have been identified on the Property based on the findings of the Phase I ESA.

The results of the Phase II ESA are summarized below:

Applicable Site Condition Standards	MECP Table 8 RPIICC

Soil Contaminants of Potential Concern (CoPCs) Investigated	• Metals
	• Hydride-forming Metals
	  ○ Antimony (Sb), Arsenic (As), Selenium (Se)
	• Selected Other Regulated Parameters (ORPs)
	  ○ Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), Boron-hot water soluble (B-HWS), Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)), low or high pH
	• Polycyclic Aromatic Hydrocarbons (PAHs)
	• Petroleum Hydrocarbons (PHCs)
	• Volatile Organic Compounds I (VOCs)
	• Volatile Organic Compounds II (BTEX)
	• Polychlorinated Biphenyls (PCBs)

Groundwater CoPCs Investigated	• Metals
	• Hydride-forming Metals
	  ○ Sb, As, Se
	• Selected ORPs
	  ○ CN-, Chloride (Cl), Hg, Cr(VI)
	• Sodium (Na)
	• PAHs
	• PHCs
	• VOCs
	• BTEX
	• PCBs

Applicable Site Condition Standards Met for Soil? (Yes/No)	No • MECP Table 8 exceeded for PHCs in the native soil.
Applicable Site Condition Standards Met for Groundwater? (Yes/No)	Yes

A Record of Site Condition (RSC) is not required for the site for continued commercial use.

2 Introduction

2.1 Site Description

Almega Asset Management retained Grounded Engineering Inc. to complete a Phase II Environmental Site Assessment (ESA) of the property located at 60 Dundas Street East, Mississauga, Ontario (Property). The Phase II ESA was conducted to investigate the Areas of Potential Environmental Concern (APECs) that have been identified on the Property. The site location is presented in Figure 1.

The Property is approximately rectangular in shape, with an approximate area of 1.07 ha. The site is currently developed with a one-storey commercial plaza with associated asphalt surface parking and landscape areas. The Phase II ESA has been prepared for due diligence purposes only and in general accordance with CSA Standard Z768-01 and CSA Standard Z769-00.

2.2 Property Ownership

The Property information is provided below:

Municipal Address	60 Dundas Street East, Mississauga, Ontario
PIN(s)	13350-0021 (LT)
Current Land Use	Commercial
Property Owner Information	Gold Star Plaza Ltd.
Person who has engaged the Qualified Person to conduct the Phase One ESA	Spencer Shafran Almega Asset Management 25 Watline Ave. Suite 501 Mississauga ON, L4Z 2Z1

2.3 Current and Proposed Future Uses

The Property is considered to be in commercial land use by the Ontario Ministry of the Environment, Conservation and Parks (MECP). It is understood that the Phase II Property will be developed with three (3) new residential towers on 3-5 storey podiums, with a common four-level underground parking structure beneath the entire site.

2.4 Applicable Site Condition Standard

The applicable site condition standard for the Phase II Property is determined to be Table 8 Site Condition Standard for Residential/Parkland/Institutional/Industrial/Commercial/Community land use in potable groundwater condition for fine textured soil due to the following reason:

Current Land Use	Commercial
Future Land Use	Residential
Soil Texture	Medium to fine. Based on grain size analysis performed on the soil (Appendix B)
Potable Water Source	Lake Ontario
Bedrock Depth	Bedrock is located at a depth of greater than 2 m.
Property located within 30 m of a surface water body (Yes/No)	Yes
Property located in or adjacent to a provincial park or an Area of Natural Significance (Yes/No)	No

3 Background Information

3.1 Physical Setting

The Ministry of Natural Resources and Forestry (MNRF) and Ministry of Energy, Northern Development and Mines (MENDM) database were searched to obtain topographic and geological maps of Ontario for review. The information obtained are summarized below:

Records	Information
Topographic Maps	The approximate elevation of the Property is 111 metres above sea level (masl) and is gently sloping towards Cooksville Creek to the east.
Hydrology	The nearest body of water is Cooksville Creek, located adjacent northeast of the Property. Lake Ontario is located approximately 4 km southwest of the Property. Surface water flow is expected to flow to the municipal catch basins located on the Property or the adjacent roadway. Groundwater is expected to flow northeast towards Cooksville Creek and ultimately southeast towards Lake Ontario.
Geological Maps	<u>Overburden:</u> Halton Till consisting of stratified clayey silt to silt to sandy silt across the north to east portion of the Property. Deltaic and Lacustrine Deposits consisting of silty sand to gravelly sand across the western portion of the Property. <u>Bedrock:</u> Georgian Bay Formation comprised of shale, limestone, dolostone, and siltstone <u>Depth to Bedrock:</u> Bedrock was encountered based on nearby subsurface investigations at approximately 6 m bgs. Based on the drift thickness map of the area (Lawrence et al., 1969), bedrock was located 107 m below ground surface.

Maps from MNRF were reviewed to determine if water bodies were present on the Property and within the Study Area. The Ontario Ministry of Natural Resources National Heritage Information Centre database for Areas of Natural or Scientific Interest (ANSIs) was also reviewed as part of the Phase I ESA. The information is summarized below:

Water Bodies	Phase I Property: • No water bodies are located on the Property. Study Area: • Cooksville Creek is located adjacent northeast of the Property.
Wetlands	Phase I Property: • No Provincially Significant, Non-Provincially Significant, and Unevaluated wetlands are located on the Property. Study Area: • No Provincially Significant, Non-Provincially Significant, and Unevaluated wetlands are located within the Study Area.
ANSIs	Phase I Property: • No Provincially Significant Life Science and Earth Science ANSIs are located on the Property. Study Area: • No Provincially Significant Life Science and Earth Science ANSIs are located within the Study Area.

3.2 Past Investigations

The following environmental report was provided for review for the Property. The findings of the report are summarized below:

Title and File No.	Due Diligence Phase I Environmental Assessment – 60 Dundas Street East, Mississauga, Ontario. Project Number: GOR-00212908-AO
Report Date	May 31, 2013
Prepared By	exp Services Inc. (exp)
Prepared for	Gold Star Plaza Ltd.
Description of Data, Analysis or Findings	• exp conducted a Phase I ESA for the site located at 60 Dundas Street East, Mississauga, ON for due diligence purposes. The Phase I ESA was completed to the Canadian Standards Association (CSA) Z768 Guideline. • The Site was developed for mixed commercial and residential use since 1939, which two (2) residential buildings and one (1) commercial building used as an inn (Crovton Villa). The Site was developed into a commercial plaza from primarily residential use in 1978 and has remained in commercial use since then.

	• A previous Phase I ESA prepared by Barenco Inc. was prepared on August 21, 2008. No PCAs were identified on the Property or in the surrounding properties in the report.
	• Potentially Contaminating Activities (PCAs) that were identified include:
	  ○ A former dry cleaner was located at 131 Dundas St. E., 180 m northeast of the Site.
	  ○ A retail fuel storage tank with a capacity of 41,927L was present at 86 Dundas St. E., 35m northeast of the Site.
	  ○ A retail fuel storage tank with a capacity of 99,800L was present at 8 Dundas St. E., 140m southwest of the Site.
	  ○ A spill of 100L of hydraulic oil was present at 55 Dundas St. E., 20m northwest of the Site.
	  ○ A spill of an unknown volume and contents causing a sheen was present at 100 Dundas St. E., 70m northeast of the Site.
	  ○ A spill of 100L of diesel fuel was present at 120 Dundas St. E., 130m northeast of the Site.
	  ○ An above ground storage tank containing oil from a restaurant operating on-Site was present. Staining of 2 m^2 of asphalt was noted.
	  ▪ Based on the current investigation, it was noted that the contents were composed of waste food oil and were not further considered as a potentially contaminating activity.
	• No PCAs that would result in an APEC were identified in the report.
	• Potential asbestos containing materials were identified in the vinyl floor and ceiling tiles located in the units that may be of concern during demolition or renovation.

Title and File No.	60 Dundas Street East, Mississauga, Ontario, Phase I ESA *File No. 21-067*
Report Date	May 21, 2021
Prepared By	Grounded Engineering Inc.
Prepared for	Almega Asset Management

Description of Data, Analysis or Findings	• A review of the previous Phase I Environmental Assessment was conducted ahead of preparing a Phase II Environmental Site Assessment for due diligence purposes.
	• The Phase I ESA identified 12 Areas of Potential Environmental Concern (APECs):
	  ○ APEC 1 (Entire Phase I Property) – Based on the development of the Property, fill materials of unknown quality were likely present throughout the Property.
	  ○ APEC 2 (Entire Phase I Property) – An asphalt parking lot was present on the Property since development.
	  ○ APEC 3 (Entire Phase I Property) – A former dry cleaner was present on the Property between 1984 and 2000.
	  ○ APEC 4 (Northern and Western Portion of the Phase I Property) – A former autobody shop was present 15 m southwest of the Property.
	  ○ APEC 5 (Northern and Western Portion of the Phase I Property) – A former dry cleaner was present 15 m southwest of the Property.
	  ○ APEC 6 (Northern Portion of the Phase I Property) – A former fuel oil tank was present 59 m northwest of the Property.
	  ○ APEC 7 (Northern Portion of the Phase I Property) – PCB use with waste generation was recorded 59 m northwest of the Property.

	○ APEC 8 (Northern Portion of the Phase I Property) – A former dry cleaner was present 61 m northwest of the Property. ○ APEC 9 (Northern Portion of the Phase I Property) – A former auto garage was present 70 m northwest of the Property. ○ APEC 10 (Northwestern Property of the Phase I Property) – A former gasoline station was present 94 m west of the Property. ○ APEC 11 (Northwestern Property of the Phase I Property) – An substantial volume of oil spill was recorded 101 m west of the Property ○ APEC 12 (Western Portion of the Phase I Property) – A service station and auto centre was present 140 m southwest of the Property. • A Phase II ESA was recommended to assess the soil and groundwater quality on site to address the identified APECs on the Property.

4 Site Investigation Methodology

4.1 Overview of Site Investigation

The scope of the Phase II ESA is as follow:

Boreholes and Monitoring Wells	• Advancing of three (3) boreholes (BH101 to BH103) to depths of 5.1 to 7.4 m below ground surface (m bgs) • Installation of three (3) of monitoring wells • Soil sampling from the newly advanced boreholes • Groundwater sampling of all three (3) monitoring wells
Parameters Investigated for Soil	• Metals • Hydride-forming Metals ○ Antimony (Sb), Arsenic (As), Selenium (Se) • Selected Other Regulated Parameters (ORPs) ○ Electrical Conductivity (EC), Sodium Adsorption Ratio (SAR), Boron-hot water soluble (B-HWS), Cyanide (CN-), Mercury (Hg), Hexavalent Chromium (Cr(VI)) • Polycyclic Aromatic Hydrocarbons (PAHs) • Petroleum Hydrocarbons (PHCs) • Volatile Organic Compounds I (VOCs) • Volatile Organic Compounds II (BTEX) • Polychlorinated Biphenyls (PCBs)
Parameters Investigated for Groundwater	• Metals • Hydride-forming Metals ○ Sb, As, Se • Selected ORPs ○ CN-, Chloride (Cl), Hg, Cr(VI), pH • Sodium (Na) • PAHs • PHCs • VOCs • BTEX • PCBs
• One (1) soil sample was submitted for grain size analysis and soil classification. • All boreholes and monitoring wells were surveyed to a geodetic benchmark. • All monitoring wells were developed and sampled.	

- Groundwater level measurements were conducted in all monitoring wells to determine groundwater elevation on the Property.

4.2 Investigation Method

4.2.1 General

The Phase II ESA followed the methods outlined in the Ontario Ministry of the Environment, Conservation, and Parks "Guidance *on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario"* (December 1996).

The methods used in the Phase II ESA did not differ from the associated standard operating procedures. The sampling plan is provided in Appendix A.

4.2.2 Drilling

The Phase II ESA drilling information is provided below:

Boreholes	BH101 to BH103
Date of Work	May 03, 2021
Name of the Contractor(s)	Sonic Soil Sampling Inc.
Equipment Used	Truck-mounted rig, solid stem augers, 2-inch split spoon soil sampling device.
Measures for Cross-contamination Prevention	The split spoon sampling device was washed between each sample to prevent potential cross-contamination
Sampling Frequency	Please refer to the borehole logs in Appendix B for the sampling frequency

The borehole locations are provided in Figure 2.

4.2.3 Groundwater – Monitoring Well Installation

The Phase II ESA monitoring well installation information is provided below:

Monitoring Wells	BH101, BH102, and BH103
Date of Work	May 03, 2021

Well Construction	The wells were constructed with [50 mm (2 in.) ID PVC screens and risers]. Filter sand was placed around the well screen to approximately 0.3 to 0.6 m above the top of the screen. The wells were then backfilled with bentonite to approximately 0.3 m below ground surface (m bgs). The wells were finished with flush mounts.
Well Development	The monitoring wells were developed on May 04, 2021. Well development was conducted with a Low Density Polyethylene (LDPE) tubing and foot valve. A total volume of 27 L of water was removed during the well development. Stabilization of parameters (pH, conductivity, temperature, etc.) of the purged water was monitored before a sample to ensure the samples are representative of the formation water.

The monitoring well locations are provided in Figure 2.

4.3 Groundwater – Sampling

The monitoring well was purged using dedicated LDPE tubing on May 04, 2021 and sampled using a bladder pump on May 07, 2021. Additional groundwater sampling events were conducted on June 9, 2021, and June 14, 2021, to dispute previous exceedances detected during the first monitoring event.

Sampling methodology from the Ontario Ministry of the Environment, Conservation and Parks (MECP) *"Guidance on Sampling and Analytical Methods for Use at Contaminated Sites In Ontario"*, MECP *"Guide for Completing Phase Two Environmental Site Assessments under Ontario regulation 153/04"* and MECP *"Protocol for Analytical Methods Used in the Assessment of Properties under Par XV.1 of the Environmental Protection Act"* were followed in the collection of the groundwater samples.

4.4 Analytical Testing

Analytical Testing of all soil and groundwater samples was conducted by ALS Canada Ltd.

5 Findings

5.1 Geology

Detailed geological information for the Property is presented on the borehole logs in Appendix B. The geology at the Property is summarized below.

Geological Unit Thickness (Estimate)	
Borehole	**BH101 to BH103**
	Thickness Range (m)
Earth Fill	1.6 to 3.9 m

Geological Unit Thickness (Estimate)	
Borehole	**BH101 to BH103**
	Thickness Range (m)
Clayey Silt (Glacial Till)	2.1 to 4.3 m
Bedrock	Encountered between 5.2 to 6.3 m bgs

Geological Unit Elevations		
Borehole	**BH101 to BH103**	
	Elev. Top Range (masl)	**Elev. Bottom Range (masl)**
Earth Fill	109.2 to 110.8	108.9 to 106.0
Clayey Silt (Glacial Till)	108.9 to 106.0	104.6 to 103.9
Bedrock	104.6 to 103.9	Bottom of bedrock not encountered. Investigation terminated from 104.3 masl to 103.5 masl.

5.1.1 Material in Geological Units

Geological Units	Description
Surficial Materials	BH101 and BH103 encountered a pavement structure consisting of 25 to 50 mm asphaltic concrete underlain by 100 mm of aggregate. BH102 encountered 100 mm of topsoil.
Earth Fill	Earth fill was encountered at all borehole locations underlying the surficial materials. The Earth Fill extended to a depth of 1.7 to 4.0 mbgs (Elev. 108.9 to 106.0 m). The Earth Fill generally consisted of sand with some silt to silty sand with trace amounts of clay, gravel, and organics.
Native Glacial Till	Clayey Silt till with trace amounts of gravel and sand was encountered at all borehole locations underlying the Earth Fill. The till was found between Elev. 108.9 to 103.9 m.
Bedrock	Inferred bedrock consisting of shale and limestone fragments were encountered at BH101 and BH102. The top of bedrock was inferred at Elev. 104.6 to 103.9 m.

5.1.2 Properties of Aquifers and Aquitards

Aquifers/Aquitards	Description
Earth Fill	The Earth Fill on the Property is considered to be an unconfined aquifer. The groundwater table on the Property is located within the glacial till. The earth fill is considered to be hydraulically connected to the native soil layer composed mainly of clayey silt glacial till. Any water within the fill is expected to migrate downwards into the native soil.
Glacial Till	The native soil consisting of cohesive glacial till deposits is considered to be an aquitard due to the low permeability of the soils.

5.2 Groundwater: Elevations and Flow Direction

The most recent groundwater level data collected on May 10, 2021, as a part of this Phase II ESA, is summarized as follows:

Monitoring Well ID	Screen Depth Interval		Screen Strata	Depth to Ground Water (mbgs)	Ground Water Elevation (masl)
	mbgs	masl			
BH101	4.6 – 6.1	106.3 - 104.8	Clayey Silt Till	3.3	107.6
BH102	4.6 – 6.1	105.4 - 103.9	Clayey Silt Till	3.8	106.2
BH103	3.4 – 4.9	106.0 - 104.5	Clayey Silt Till	4.1	105.3

Based on the groundwater elevations measured on the Property, the groundwater was determined to flow locally to the south to southeast. Regional groundwater flow is expected to flow to the southeast towards Cooksville Creek. Groundwater elevation is provided on the borehole logs in Appendix B.

It is unlikely that the bedding materials for the underground utilities would serve as preferential pathways for the migration of PCoC. Water levels taken from site monitoring wells varied between 3.3 m to 4.1 m below ground surface. Therefore, it is unlikely that any existing utilities would intersect the water table.

Interface probe measurements were taken and no light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were detected. No free-flowing products were encountered on the Property.

5.3 Soil – Quality

5.3.1 Field Screening

Hydrocarbon vapour concentrations were screened in each soil sampling, using an RKI Eagle 2 gas monitor. The monitor is calibrated to *n*-hexane prior to field screening as per the calibration procedure outlined by RKI Instruments in *"Eagle 2 Operator's Manual, Part Number:71-0154RK"*

released March 12, 2019. The monitor has a range of 0 to 40,000 parts per million (ppm) and an accuracy of +/- 5%

Based on field screening measurements and visual and olfactory examination of all soil samples, selected samples were submitted for volatile organic compounds (VOCs) and petroleum hydrocarbon (PHCs) laboratory analysis. Complete field screening readings are provided on the borehole logs in Appendix B.

5.3.2 Location and Depth of Samples

Sample ID	Depth		Strata	Metals	H-Metals	ORPs	PAHs	VOCs/ THMs	PHCs	PCBs	BTEX
	mbgs	masl									
BH101 SS1	0.1 - 0.7	110.8 - 110.2	Fill				✓				
BH101 SS2	0.8 - 1.4	110.1 - 109.5	Fill	✓	✓	✓					
DUP 1											
BH101 SS3B	2.0 - 2.1	108.9 - 108.8	Clayey Silt Till							✓	
DUP 2											
BH101 SS4	2.3 - 2.9	108.6 - 108.0	Clayey Silt Till						✓		✓
DUP 3											
BH101 SS7	4.6 - 5.0	106.3 - 106.0	Clayey Silt Till					✓			✓
BH102 SS3	1.5 - 2.1	108.5 - 107.9	Fill	✓	✓	✓					
BH102 SS5	3.0 - 3.7	106.9 - 106.3	Fill				✓				
BH102 SS6B	4.0 - 4.4	106.0 - 105.6	Clayey Silt Till						✓	✓	✓
BH102 SS7	4.6 - 5.2	105.4 - 104.8	Clayey Silt Till					✓			✓
DUP 4											
BH103 SS1	0.2 - 0.8	109.2 - 108.6	Fill	✓	✓	✓					

Sample ID	Depth		Strata	Metals	H-Metals	ORPs	PAHs	VOCs/ THMs	PHCs	PCBs	BTEX
	mbgs	masl									
BH103 SS2	0.8 - 1.4	108.6 - 108.0	Fill				✓				
DUP 5											
BH103 SS3B	1.7 - 2.1	107.6 - 107.2	Clayey Silt Till						✓		✓
BH103 SS5	3.0 - 3.7	106.3 - 105.7	Clayey Silt Till					✓			✓

5.3.3 Comparison to Applicable Standards

Selected soil samples were analyzed for Contaminants of Potential Concern (CoPCs) of the following:

- Metals (M)
- Metals, Hydride-Forming: As, Se & Sb (H-M)
- Other Regulated Parameters (ORPs):
    - Boron, hot water soluble (HWS)
    - Cyanide
    - Electrical Conductivity (EC)
    - Hexavalent Chromium
    - Mercury
    - Sodium Adsorption Ratio (SAR)
- Petroleum Hydrocarbons (PHCs)
- Polycyclic Aromatic Hydrocarbons (PAHs)
- Volatile Organic Compounds I (VOCs)
- Volatile Organic Compounds II: Benzene, Toluene, Ethylbenzene, Xylene (BTEX)
- Polychlorinated Biphenyls (PCBs)

The results of the analysis were compared to the applicable Site Condition Standard for the Phase II Property (Table 8 RPIICC). The laboratory certificates of analysis are provided in Appendix C.

Comparison Table (Table 8 RPIICC Standard)		
Parameter Analyzed	**Exceed/Meet**	**Note:**
Metals	Meet	None
Hydride-forming Metals	Meet	None
ORPs	Exceeds	• Refer to section 5.3.3.1
PHCs	Exceeds	BH101-SS4: • PHC F2 DUP 3 (BH101-SS4): • PHC F2 BH103-SS3B: • PHC F2
PAHs	Meet	None
BTEX	Meet	None
VOCs	Meet	None
PCBs	Meet	None

5.3.3.1 Exemption of Salt Related Exceedances (O.Reg. 153/04 Sec 49.1 (1))

Chemical analysis of the soil indicates that there are exceedances of the MECP Table 8 RPIICC Standards for Electrical Conductivity and Sodium Adsorption Ratio (salt related compounds) within the upper soils.

The Property is bound by a municipal roadway to the northwest (Dundas Street East) and to the southwest (Shepard Avenue). The roadway has public sidewalks between the road and the Property boundary. The entire Property features car parking. The roadways, sidewalks, and parking area are all salted during the winter months for safety purposes.

The Qualified Person has determined, based on the Phase I Environmental Site Assessment and the Phase II Environmental Site Assessment, that a substance (salt) has been applied to surfaces of the roadway, sidewalks, driveway and parking area for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (application of salt for safety purposes during winter months). As per O.Reg. 153/04 49.1 the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

5.4 Groundwater – Quality

5.4.1 Location and Depth of Samples

Sample ID	Screen Depth		Screen Strata	Metals	H-Metals	ORPs	PAHs	VOCs/ THMs	PHCs	PCBs	BTEX
	mbgs	masl									
BH101	4.6 – 6.1	106.3 - 104.8	Clayey Silt Till	✓	✓	✓	✓	✓	✓	✓	✓
BH102	4.6 – 6.1	105.4 - 103.9	Clayey Silt Till	✓	✓	✓	✓	✓	✓	✓	✓
DUP 1											
BH103	3.4 – 4.9	106.0 - 104.5	Clayey Silt Till	✓	✓	✓	✓	✓	✓	✓	✓

5.4.2 Comparison to Applicable Standards

Selected groundwater samples were analyzed for Contaminants of Potential Concern (CoPCs) of the following:

- Metals
- Hydride-forming Metals: Sb, As, Se
- Selected ORPs
    - CN-
    - Chloride (Cl)
    - Hg
    - Cr(VI)
- Sodium (Na)
- PAHs
- PHCs
- VOCs
- BTEX
- PCBs

The results of the analysis were compared to the applicable Site Condition Standard for the Phase II Property (Table 8). The laboratory certificates of analysis are provided in Appendix C.

Comparison Table (Table 8 Standard)		
Parameter Analyzed	**Exceed/Meet**	**Note:**
Metals	Meet	None
Hydride-forming Metals	Meet	None
ORPs	Meet	Refer to section 5.4.2.1
Sodium	Meet	Refer to section 5.4.2.1
PHCs	Meet	None
PAHs	Meet	Refer to section 5.4.2.2
BTEX	Meet	None
VOCs	Meet	None
PCBs	Meet	None

5.4.2.1 Exemption of Salt Related Exceedances (O.Reg. 153/04 Sec 49.1 (1))

Chemical analysis of the groundwater indicates that there are exceedances of the MECP Table 8 Standards for sodium and chloride (salt related compounds).

The Property is bound by a municipal roadway to the north (Dundas Street East) and to the west (Shepard Avenue). The roadway has public sidewalks between the road and the Property boundary. The entire Property features car parking. The roadways, sidewalks, and parking area are all salted during the winter months for safety purposes.

The Qualified Person has determined, based on the Phase I Environmental Site Assessment and the Phase II Environmental Site Assessment, that a substance (salt) has been applied to surfaces of the roadway, sidewalks, driveway and parking area for the safety of vehicular and pedestrian traffic under conditions of snow or ice or both. Based on the historical use of the Property as a parking lot, the Qualified Person has determined that the groundwater has been affected by the use of salt on the Property.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (application of salt for safety purposes during winter months). As per O.Reg. 153/04 49.1 the applicable site condition standard is deemed not to be exceeded for the purpose of Part XV.1 of the Act.

5.4.2.2 Explanation of PAH results

Initial exceedances were identified in the groundwater for Benzo(a)pyrene in BH103 sampled on May 7, 2021. A resample of this location was completed on June 9, 2021, and June14, 2021 with low-flow sampling protocol. The results of the sampling indicated concentrations below the applicable standard for the re-sample.

It is noted that sediment was observed in the groundwater sample on May 7, 2021. The Qualified Person has determined that the groundwater PAH quality has been biased by sediment in the initial sample. Two confirmatory rounds of groundwater sampling were performed on June 9 and June 14, 2021. The sampling methodology was conducted with low flow sampling protocol to minimize the sediment and provide more representative results. Both subsequent rounds of groundwater sampling returned non-detectable results and below the applicable standards.

The applicable site condition standard is exceeded at the Property solely because of the reason as stated above (sediment in the groundwater sample). The applicable site condition standard is deemed not to be exceeded.

6 Evaluation of Findings

6.1 Summary of Findings

6.1.1 Contaminants of Concern

No Contaminants of Concern were associated with the earth fill on the Property.

The Contaminants of Concern associated with the native soil on the Property are:

- PHCs:
    - PHC F2

No Contaminants of Concern were associated with the groundwater on the Property.

6.1.2 Contamination Impact on Other Media

The Contaminants of Concern identified within the native soil, which exceeded the applicable Site Condition Standards, can impact groundwater due to the nature of the contaminants.

6.1.3 Presence of Light or Dense Non-Aqueous Phase Liquids

No light non-aqueous phase liquids (LNAPL) or dense non-aqueous phase liquids (DNAPL) were detected in the soil or groundwater on the Property.

6.2 Quality Assurance and Quality Control Results

Quality Assurance (QA) and Quality Control (QC) were maintained as per described in Section 5.12 above. In addition, laboratory results were compared to MECP standards for QA/QC under Ontario Regulation 153/04 which requires laboratory results to meet specific method detection limit (MDL) conditions. The sampling and analysis performed conformed with the following guidelines:

1. Ministry of the Environment, Conservation and Parks Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.
2. Protocol of Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act of Ontario.

Duplicate samples were submitted at a rate of 10% for both soil and groundwater samples.

All the samples collected and submitted for analysis adhered to the holding times, preservation methods, storage requirement and container type as specified by the guidelines listed above.

7 Conclusions and Recommendations

The following conclusions and recommendations are presented based upon the Phase II ESA investigation.

Exceedances for PHC F2 were found in the native soil.

Based upon the nature of the exceedance and the current land use, no additional environmental investigation is recommended at this time for continued commercial use.

7.1 Signatures

The Phase II ESA has been completed in accordance with O. Reg. 153/04 by, Kim Pickett, C.E.T., LET, QP_{ESA} under the direction and supervision of Jeremy Bobro, M_{ENVM} and Matthew Bielaski, P.Eng., $QP_{RA\text{-}ESA}$. The findings and conclusions presented in this report have been determined based on the information that was obtained and reviewed from previous investigations provided and on the current investigation for the Phase II Property.

We trust that this report meets your requirements at present.

For and on behalf of our team,

GROUNDED ENGINEERING

Kim Pickett, C.E.T, LET, QP ESA
Senior Environmental Consultant

Jeremy Bobro, MENVM
Associate

Matthew Bielaski, P.Eng., QP RA-ESA
Principal

8 References

1. Ontario Ministry of the Environment, December 1996. *Guidance on Sampling and Analytical Methods for Use at Contaminated Sites in Ontario.*
2. Ontario Ministry of the Environment, April 2011. *Soil, Ground Water and Sediment Standards for use under Part XV. 1*
3. Ontario Ministry of the Environment, June 2011. *Guide for Completing Phase Two Environmental Site Assessments under Ontario Regulation 153/04.*
4. Ontario Ministry of the Environment, July 2011. *Protocol for Analytical Methods Used in the Assessment of Properties under Part XV. 1 of the Environmental Protection Act.*
5. ArcGIS Interactive Maps. Retrieved from: http://www.arcgis.com/home/webmap/viewer.html
6. Armstrong, D.K. and Dodge, J.E.P. 2007. Paleozoic Geology Map of Southern Ontario. Ontario Geological Survey. Miscellaneous Release--Data 219.
7. Chapman, L.J. and Putnam, D.F. 2007. The Physiography of Southern Ontario. Ontario Geological Survey. Miscellaneous Release--Data 228.
8. City of Mississauga. Interactive Online Mapping Service. Retrieved from: https://www.mississauga.ca/portal/services/maps.
9. City of Mississauga. Zoning By-law 0225-2007 (in effect). Retrieved from: http://www.mississauga.ca/portal/residents/zoningbylaw.
10. Credit Valley Conservation Authority. Regulated Area Search. Retrieved from: https://cvc.ca/planning-permits/regulation-mapping/.
11. exp Services Inc. Due Diligence Phase I Environmental Assessment – 60 Dundas Street East, Mississauga, Ontario. Project Number: GOR-00212908-AO. May 31, 2013.
12. Gao, C., Shirota, J., Kelly, R. I., Brunton, F.R., van Haaften, S. 2006. Bedrock topography and overburden thickness mapping, southern Ontario. Ontario Geological Survey. Miscellaneous Release--Data 207.
13. Grounded Engineering Inc. Phase I Environmental Site Assessment, 60 Dundas St. E., Mississauga, Ontario. Report Number: 21-067-201. May 21, 2021.
14. Lawrence, A.F., Douglass, D.P., and Thomson, J.E. Brampton Area; Drift Thickness Sheet; Ontario Department of Mines Map 2179. 1969.
15. Ministry of Environment, Conservation and Parks (MECP). Water Well Information System, Data Catalogue. Retrieved from: https://data.ontario.ca/dataset/well-records
16. Ministry of Environment, Conservation and Parks (MECP). Source Protection Information Atlas. Retrieved from: https://www.lioapplications.lrc.gov.on.ca/SourceWaterProtection/index.html?viewer=SourceWaterProtection.SWPViewer&locale=en-CA
17. Ministry of Natural Resources and Forestry (MNRF). Make A Map: Natural Heritage Areas. Retrieved from: https://www.gisapplication.lrc.gov.on.ca/mamnh/Index.html?site=MNR_NHLUPS_NaturalHeritage&viewer=NaturalHeritage&locale=en-US.
18. Natural Resources Canada. The Atlas of Canada – Toporama. Retrieved from: https://atlas.gc.ca/toporama/en/index.html.

19. Ontario Geological Survey 2011. 1:250,000 scale bedrock geology of Ontario. Ontario Geological Survey. Miscellaneous Release---Data 126-Revision 1.
20. Ontario Geological Survey. 2010. Surficial geology of Southern Ontario. Ontario Geological Survey. Miscellaneous Release--Data 128-Revised.
21. Ontario Geological Survey. 2000. Quaternary geology, seamless coverage of the Province of Ontario. Ontario Geological Survey. Data Set 14---Revised.

9 Limitations and Restrictions

The Phase II ESA report was prepared for the purpose of identifying potential environmental concerns, including an assessment of the likelihood that the environmental quality of the soil and groundwater at the Property may have been adversely affected by past or present practices at the Property, and/or those of the adjacent properties prior to development of the Property. Any use of which a third party makes of this report, or any reliance on or decision to be made based on it, are the responsibility of such third parties. Grounded Engineering Inc. does not assume any responsibility for errors, omissions, damages or other limitation pertaining to third parties.

The information presented in this report is based on information collected during the completion of the subsurface investigation conducted by Grounded Engineering Inc. It is based on conditions at the Property at the time of the inspection. The subsurface conditions were assessed based on information collected at specific borehole and monitoring well locations. The actual subsurface conditions between sampling points may be different.

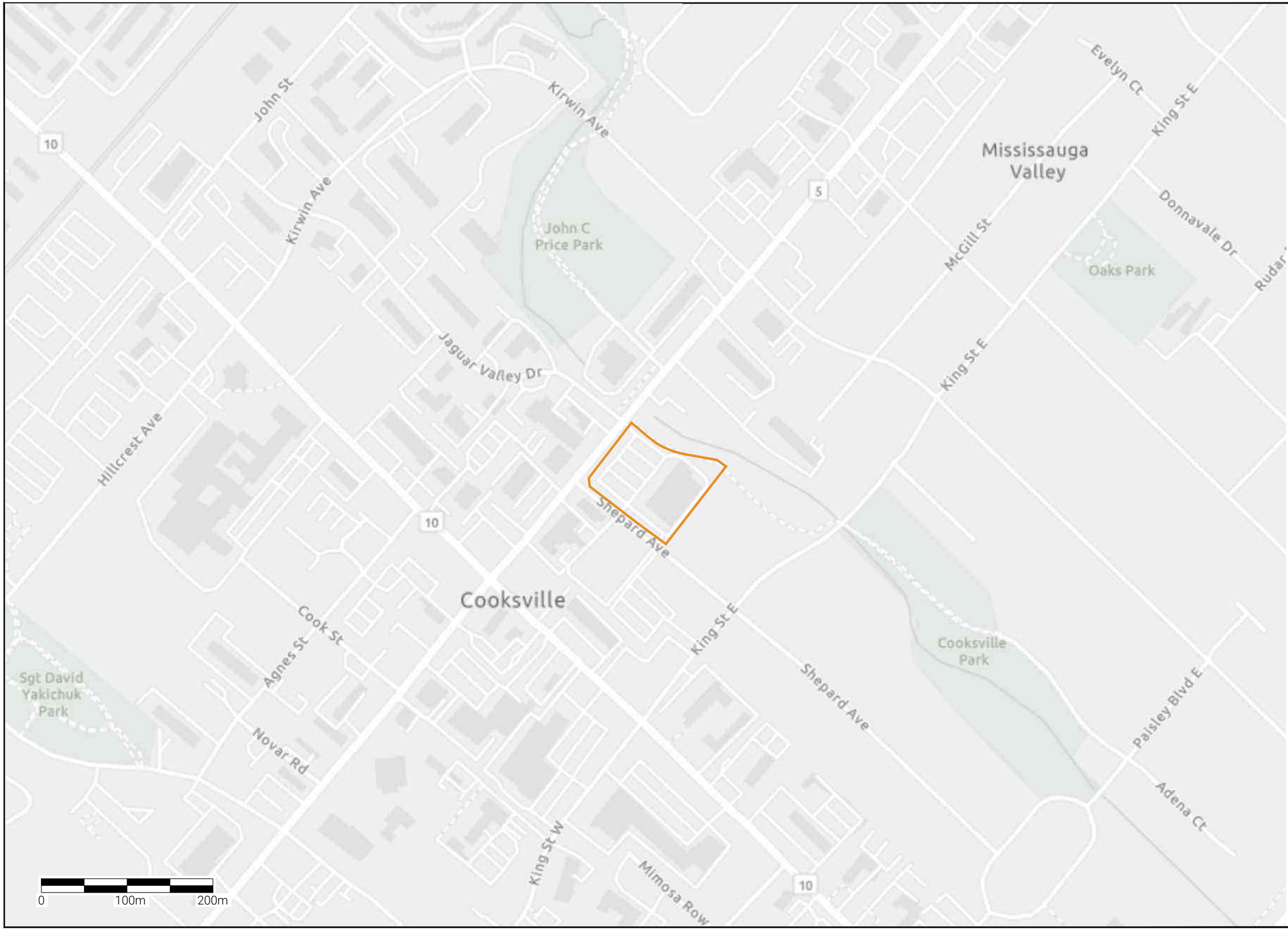
The conclusions presented in this report are based on work undertaken by trained professional and technical staff and are the product of professional care and competence. The report cannot be construed as legal advice or as an absolute guarantee.

If new information regarding the environmental condition of the Phase II Property is identified during future work, or outstanding responses from regulatory agencies indicate outstanding issues on file with respect to the Phase II Property, Grounded Engineering Inc. should be notified so that we may re-evaluate the findings of this assessment and provide amendments.

9.1 Report Use

The authorized users of this report are Almega Asset Management, for whom this report has been prepared. Grounded Engineering Inc. maintains the copyright and ownership of this document. Reproduction of this report in any format or medium requires explicit prior authorization from Grounded Engineering Inc.

FIGURES



GROUNDED
ENGINEERING
12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

APROXIMATE PROPERTY BOUNDARY

Note

Reference

ArcGIS Map 2021

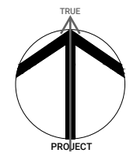
Project

60 DUNDAS STREET EAST, MISSISSAUGA, ON

Figure Title

SITE LOCATION PLAN

North



Date

MAY, 2021

Scale

AS INDICATED

Job No

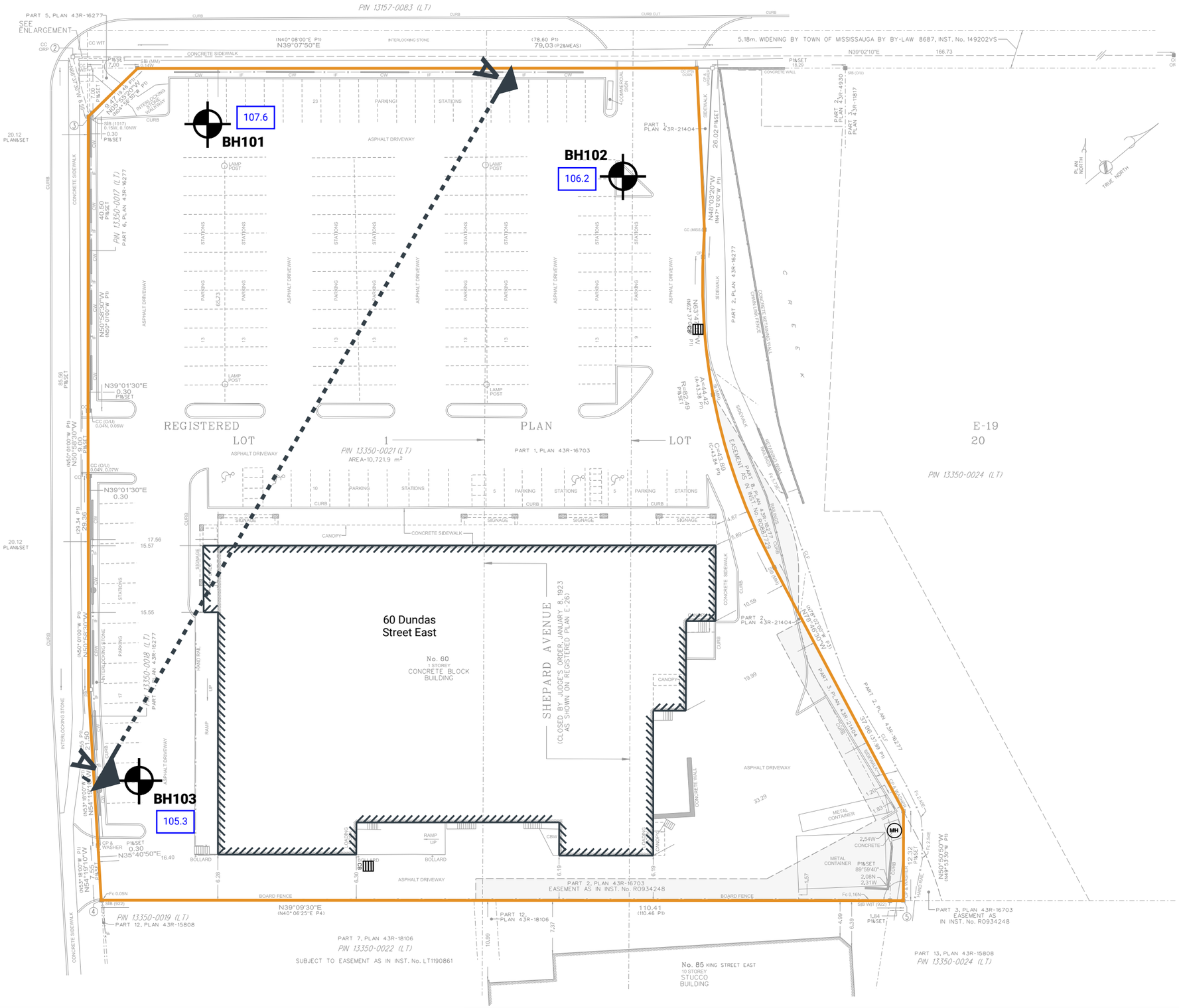
21-067

Figure No

FIGURE 1

DUNDAS STREET EAST

SHEPARD AVENUE



GROUNDED ENGINEERING

12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- MONITORING WELL BY GROUNDED
- CATCHBASIN
- MAINTENANCE HOLE
- CROSS SECTION LOCATION
- 106.2 GROUNDWATER ELEVATION (MASL), MAY 10, 2021

Note

Reference

Survey Drawing no. 20-21-14108-00.
Prepared by Aksan Piller Corporation Ltd.
Dated April 5, 2021.

Project

60 DUNDAS STREET EAST, MISSISSAUGA, ON

Figure Title

BOREHOLE AND MONITORING WELL LOCATION PLAN

North

PROJECT TRUE

Date

MAY, 2021

Scale

AS INDICATED

Job No

21-067

Figure No

FIGURE 2

DUNDAS STREET EAST

SHEPARD AVENUE

Sample Name	Units	MECP Table 8 2011 Criteria RPIICC	RDL	BH 101 SS4	DUP 3 (BH 101 SS4)	BH 102 SS6B	BH 103 SS3B
COC ID #				L2583177-4	L2583177-16	L2583177-8	L2583177-12
Date				3-May-21	3-May-21	3-May-21	3-May-21
Depth of Sample (m)				2.3 - 2.9	2.3 - 2.9	4.0 - 4.4	1.7 - 2.1
Elev of Sample (masl)				108.6 - 108.0	108.6 - 108.0	106.0 - 105.6	107.6 - 107.2
Parameter							
F2 (C10 to C16)	µg/g	10	10	13	14	<10	21

BH101

BH102

BH103

60 Dundas Street East

No. 60
1 STOREY
CONCRETE BLOCK
BUILDING

No. 85 KING STREET EAST
10 STOREY
STUCCO
BUILDING

SHEPARD AVENUE
(CLOSED BY JUDGE'S ORDER JANUARY 8, 1923
AS SHOWN ON REGISTERED PLAN E-26)

REGISTERED PLAN E-19
LOT 1 20
LOT

PIN 13157-0083 (LT)
PIN 13350-0017 (LT)
PART 6, PLAN 43R-16277
PIN 13350-0021 (LT)
AREA=10,721.9 m²
PART 1, PLAN 43R-16703
PIN 13350-0024 (LT)
PIN 13350-0018 (LT)
PART 7, PLAN 43R-16277
PIN 13350-0019 (LT)
PART 12, PLAN 43R-15808
PART 7, PLAN 43R-18106
PIN 13350-0022 (LT)
SUBJECT TO EASEMENT AS IN INST. No. LT1190861
PART 13, PLAN 43R-15808
PIN 13350-0024 (LT)
PART 1 PLAN 43R-21404
PART 2, PLAN 43R-16277
PART 2 PLAN 43R-21404
PART 3, PLAN 43R-16703
EASEMENT AS IN INST. No. R0934248
PART 2, PLAN 43R-16703
EASEMENT AS IN INST. No. R0934248

0m 7.5m 15m

GROUNDED ENGINEERING

12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- SAMPLES MEET STANDARDS
- SAMPLES EXCEED STANDARDS
- CATCHBASIN
- MAINTENANCE HOLE

Note

Reference

Survey Drawing no. 20-21-14108-00.
Prepared by Aksan Piller Corporation Ltd.
Dated April 5, 2021.

Project

60 DUNDAS STREET EAST, MISSISSAUGA, ON

Figure Title

PHC EXCEEDANCES IN SOIL

North

Date

MAY, 2021

Scale

AS INDICATED

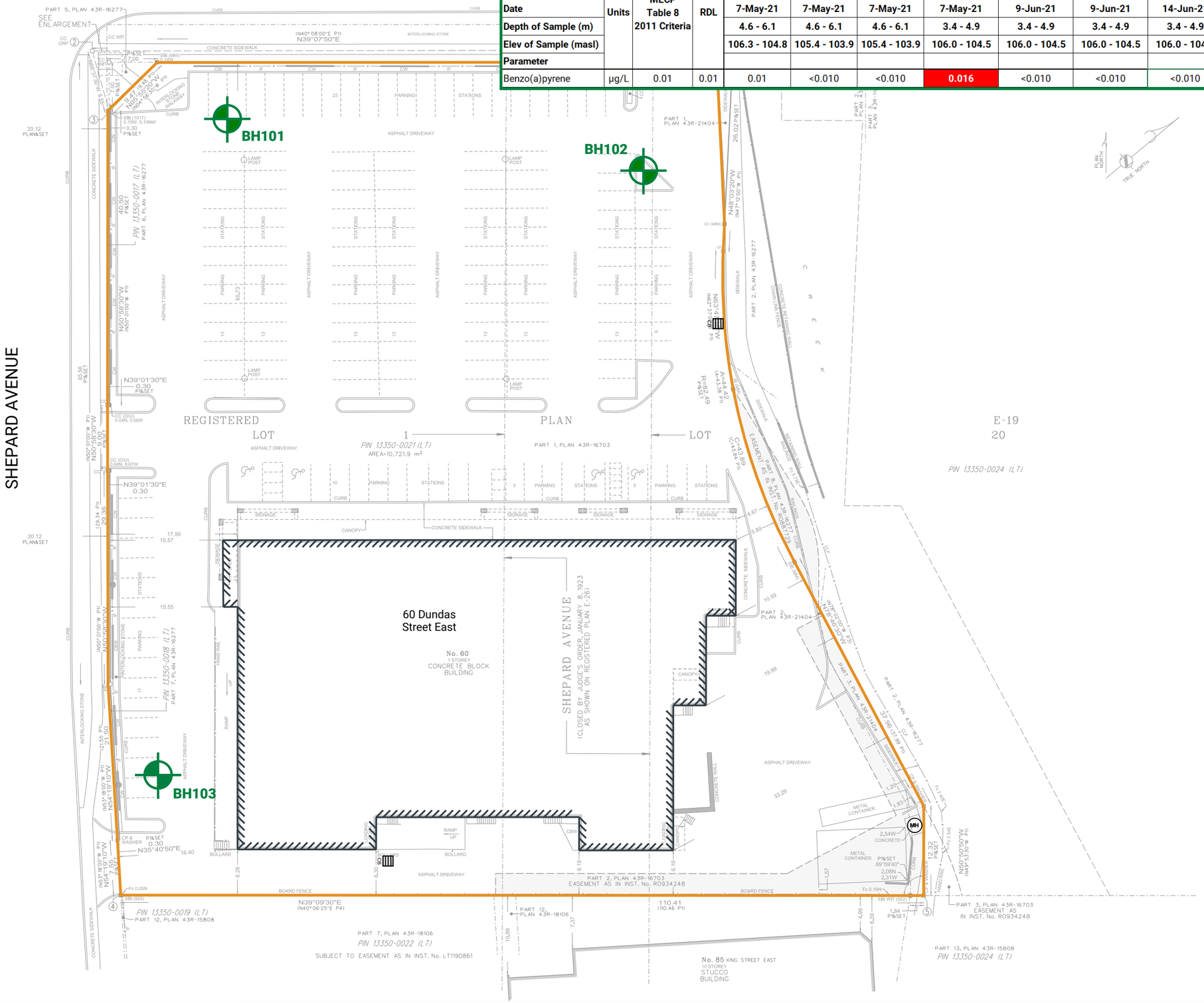
Job No

21-067

Figure No

FIGURE 3

Sample Name	Units	MECP Table 8 2011 Criteria	RDL	BH 101	BH 102	DUP 1 (BH102)	BH 103	BH 103	DUP 1 (BH103)	BH 103	DUP 1 (BH103)
COC ID #				L2585341-1	L2585341-2	L2585341-4	L2585341-3	L2598832-1	L2598832-2	L2598832-1	L2598832-2
Date				7-May-21	7-May-21	7-May-21	7-May-21	9-Jun-21	9-Jun-21	14-Jun-21	14-Jun-21
Depth of Sample (m)				4.6 - 6.1	4.6 - 6.1	4.6 - 6.1	3.4 - 4.9	3.4 - 4.9	3.4 - 4.9	3.4 - 4.9	3.4 - 4.9
Elev of Sample (masl)				106.3 - 104.8	105.4 - 103.9	105.4 - 103.9	106.0 - 104.5	106.0 - 104.5	106.0 - 104.5	106.0 - 104.5	106.0 - 104.5
Parameter											
Benzo(a)pyrene	µg/L	0.01	0.01	0.01	<0.010	<0.010	0.016	<0.010	<0.010	<0.010	<0.010



GROUNDED ENGINEERING
12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

- APPROXIMATE PROPERTY BOUNDARY
- EXISTING BUILDING STRUCTURE
- SAMPLES MEET STANDARDS
- SAMPLES EXCEED STANDARDS
- CATCHBASIN
- MAINTENANCE HOLE

Note

Reference

Survey Drawing no. 20-21-14108-00.
Prepared by Aksan Piller Corporation Ltd.
Dated April 5, 2021.

Project

60 DUNDAS STREET EAST, MISSISSAUGA, ON

Figure Title

PAH EXCEEDANCES IN GROUNDWATER

North

Date

MAY, 2021

Scale

AS INDICATED

Job No

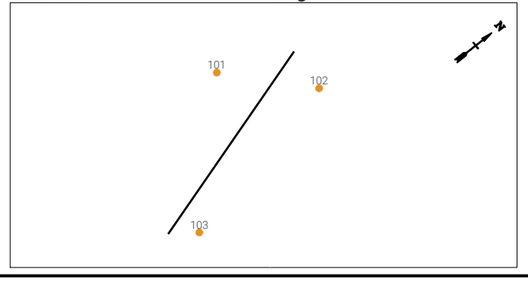
21-067

Figure No

FIGURE 4

SITE MAP

Alignment: A-A'



Boreholes Equally Spaced

LITHOLOGY GRAPHIC LEGEND

- Asphalt
- Bedrock (inferred)
- Aggregate
- Topsoil
- Fill
- Clayey Silt Till

GROUNDED ENGINEERING

12 Banigan Drive, Toronto, Ont., M4H 1E9
www.groundedeng.ca

LEGEND

- FILL
- GRAVELS (gravel to gravelly sand)
- SILT TO SAND (not till)
- COHESIONLESS TILLS
- COHESIVE SOILS (clayey silt to clay, incl. tills)
- DISTURBED/REWORKED SOILS

- water level, unstabilized
- water level, stabilized

Project

60 DUNDAS STREET EAST MISSISSAUGA, ON

Figure Title

SUBSURFACE CROSS SECTION A-A'

Date

MAY 2021

Scale

AS INDICATED

Job No

21-067

Figure No

FIGURE 5

APPENDIX A

Appendix A: Sampling Plan

1 Introduction

The sampling plan presents the sampling program for the property located at 60 Dundas Street East, Mississauga, Ontario (hereinafter referred to as the 'Property'). The recommended procedures and the quality assurance/ quality control (QA/QC) measures to be used for collecting data that is representative of the site conditions are summarized in this document.

1.1 Objective of Sampling Plan

The purpose of the sampling plan is to ensure the uncertainty of the data collected from the Property is minimized such that decision making is not affected and maintain a quality that satisfies the requirements of a Phase II Environmental Site Assessment (ESA).

2 Sampling Methods and Requirements

2.1 Soil Sampling Methodology

Soil sampling is to be conducted via advancing boreholes into the subsurface at the Property. Soil samples should be collected for chemical analyses and characterization of the stratigraphy at the Property. Samples should be collected from the subsurface using split spoon samplers and details of the soil should be logged accordingly.

Field screening must be completed on all samples prior to chemical sampling. This should include but is not limited to observations for non-aqueous phase liquids, visual impacts, olfactory impacts, and screening probe measurements, and all findings should be recorded in the field logs. All soil samples collected must be screened using a calibrated combustible gas detector (gas-tech) and/or a photo-ionization detector (PID). Soil samples should be collected in resealable bags and allowed to reach ambient temperatures before inserting the detector probe into the bag to take measurements. The results of the field screening should be used to determine the required chemical analyses on select soil samples.

All soil samples to be submitted for chemical analyses should be collected in dedicated, clean laboratory supplied containers for each parameter required. Dedicated chemical resistant gloves are to be used to handle the soil samples to prevent cross contamination. The samples should be placed in clean insulated coolers with ice or equivalent cooling items that do not affect the environmental condition of the sample during storage and transport. Any samples to be collected for volatile organic compounds (VOCs), petroleum hydrocarbon F1 (PHCs F1), or benzene, toluene, ethylene, and xylene (BTEX) parameters are to be collected using dedicated soil core samplers to be placed in vials with methanol for preserving samples. All soil samples are assigned unique identification names with a date and location. Samples are then submitted to accredited laboratories with a Chain of Custody, following any holding time, temperature, and any other requirements that may affect the environmental condition of the sample.

Prior to any drilling activities, utility clearances are required from private and public locators to minimize the potential of striking buried utilities. If there is any uncertainty of the location of buried utilities or if drilling activities are required within 1 m of buried utilities, appropriate hand digging or daylighting activities are required to uncover the utility prior to drilling.

2.2 Groundwater Sampling Methodology

All groundwater samples are to be collected from monitoring wells with screens intercepting the water table within the aquifer of interest. All monitoring wells are to be installed in general accordance to the Ontario Water Resources Act – R.R.O. 1990, Regulation 903 – Amended to Ontario Regulation 128/03, and must be installed by a licensed well contractor and have a valid well tag. All well components to be used should be covered until it is inserted in a borehole to minimize contamination. No lubricants or adhesives are allowed to be used at any monitoring well for installation or construction. Annular space at the well screens are to be backfilled with silica sand to at least 0.3 m above the top of the screen. Monitoring wells should be finished with a flushmount or a stick-up protective steel casing at ground surface, to be cemented in place.

Prior to groundwater sampling, all monitoring wells shall be developed to remove fines from the sand pack and well screen and to ensure that formation water is present within the well. Development should be completed using dedicated high or low density polyethylene tubing or bailers. Surge blocks should be used if turbidity does not improve based on visual observations. Field measurements of pH, conductivity, temperature, etc. should be collected using a multimeter instrument that is calibrated. Measurements should be collected for each wetted well volume removed from the monitoring well and documented accordingly. At a minimum, three (3) wetted well volumes are to be removed during development and shall be continued until the parameters stabilize based on field measurements and turbidity is deemed acceptable based on visual observations. To ensure groundwater samples collected are representative of formation water, stabilization of parameters shall be confirmed within 24 hours prior to sampling.

All groundwater samples to be submitted for chemical analyses should be collected in dedicated, clean laboratory supplied containers for each parameter required. Bladder pumps should be used for the collection of groundwater samples at the Property. All tubing used should be dedicated to each monitoring well to avoid cross contamination. Dedicated chemical resistant gloves are to be used to handle the groundwater samples to prevent cross contamination. The samples should be placed in clean insulated coolers with ice or equivalent cooling items that do not affect the environmental condition of the sample during storage and transport. When collecting samples for volatile contaminants, the vials shall not have any head space within the containers. All groundwater samples are assigned unique identification names with a date and location. Samples are then submitted to accredited laboratories with a Chain of Custody, following any holding time, temperature, and any other requirements that may affect the environmental condition of the sample.

2.3 Quality Assurance/Quality Control

Clean laboratory supplied sample containers shall be used for all sampling conducted at the Property. Samples shall only be collected in the containers with preservatives specific to the parameter group required for analysis. Duplicate samples will be collected at a minimum of 10% of all samples rounded up.

For groundwater sampling, a trip blank prepared by the accredited laboratory will be submitted for chemical analyses to evaluate the potential for cross contamination during transportation.

2.4 Equipment Cleaning

Dedicated equipment will be used for sampling at the Property for the majority of tasks such as collection of soil and groundwater samples. For equipment that must generally be reused, the following protocols shall be followed.

All split spoon sampling devices shall be cleaned and decontaminated between sampling intervals, auger flights, as well as borehole locations. Any residue generated during drilling operations such as soil cuttings and decontamination fluids shall be disposed in sealed drums that are labelled, to be disposed of off-site by the licensed well contractor or otherwise specified by the Client.

When installing monitoring wells, all construction parts should be covered until insertion into the borehole. When measuring field parameters, the probe shall be cleaned between monitoring wells. Water levels shall also be decontaminated between monitoring wells during well development and before groundwater sampling.

3 Sampling Rationale

3.1 Areas of Potential Environmental Concern and Potential Contaminants of Concern

The following table summarizes the location of the Areas of Potential Environmental Concern (APECs) and the associated potential contaminants of concern (PCOCs) at the Proeprty. The media potentially impacted have also been identified.

Appendix A: Sampling Plan

Areas of Potential Environmental Concern (APECs)	Location of APECs on Phase One Property	Location of PCA (onsite or off-site)	Potential Contaminants of Concern (PCoCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC 1: #30 – Importation of Fill Material of Unknown Quality	Entire Phase I Property	Onsite	Metals As, Sb, Se CN- Hg Cr(VI) PAHs	Soil & Groundwater
			B-HWS	Soil
APEC 2: #O1 – Other (De-icing Activities)	Entire Phase I Property	Onsite	EC SAR	Soil
			Cl Na	Groundwater
APEC 3: #37(i) – Operation of Dry Cleaning Equipment (where chemicals are used)	Entire Phase I Property	Onsite	VOCs	Soil & Groundwater
APEC 4: #10(i) – Commercial Autobody Shops	Northern and Western Portion of Phase I Property	Off-site	Metals As, Sb, Se BTEX PHCs VOCs	Groundwater
APEC 5: #37(ii) – Operation of Dry Cleaning Equipment (where chemicals are used)	Northern and Western Portion of Phase I Property	Off-site	VOCs	Groundwater
APEC 6: #28(i) – Gasoline and Associated Products Storage in Fixed Tanks	Northern Portion of Phase I Property	Off-site	PHCs BTEX	Groundwater
APEC 7: #O3 – Other (PCB Use)	Northern Portion of Phase I Property	Off-site	PCBs	Groundwater
APEC 8: #37(iii) – Operation of Dry Cleaning Equipment (where chemicals are used)	Northern Portion of Phase I Property	Off-site	VOCs	Groundwater
APEC 9: #10(ii) – Commercial Autobody Shops	Northern Portion of Phase I Property	Off-site	Metals As, Sb, Se BTEX PHCs VOCs	Groundwater

Areas of Potential Environmental Concern (APECs)	Location of APECs on Phase One Property	Location of PCA (onsite or off-site)	Potential Contaminants of Concern (PCoCs)	Media Potentially Impacted (Groundwater, soil and/or sediment)
APEC 10: #28(ii) – Gasoline and Associated Products Storage in Fixed Tanks	Northwestern Portion of Phase I Property	Off-site	PHCs BTEX	Groundwater
APEC 11: #O2(i) – Other (Ontario Spills)	Northwestern Portion of Phase I Property	Off-site	PHCs BTEX	Groundwater
APEC 12: #10(iii) – Commercial Autobody Shops	Western Portion of Phase I Property	Off-site	PHCs VOCs	Groundwater

3.2 Proposed Borehole Location and Rationale

Borehole	Rationale	APEC Investigated	Chemical Analysis	
			Soil	Groundwater
BH101	Borehole to determine soil stratigraphy. Sample of fill material and native soils to determine soil quality. Borehole advanced at northwestern portion of Property to determine possible contaminants.	1 to 12	Metals As, Sb, Se CN- Hg EC SAR Cr(VI) B-HWS PAHs PHCs BTEX VOCs	Metals As, Sb, Se CN- Hg Cr(VI) Na Cl PAHs PHCs BTEX VOCs PCBs

Appendix A: Sampling Plan

Borehole	Rationale	APEC Investigated	Chemical Analysis	
			Soil	Groundwater
BH102	Borehole to determine soil stratigraphy. Sample of fill material and native soils to determine soil quality. Borehole advanced at northeastern portion of Property to determine possible contaminants.	1 to 9	Metals As, Sb, Se CN- Hg EC SAR Cr(VI) B-HWS PAHs PHCs BTEX VOCs	Metals As, Sb, Se CN- Hg Cr(VI) Na Cl PAHs PHCs BTEX VOCs PCBs
BH103	Borehole to determine soil stratigraphy. Sample of fill material and native soils to determine soil quality. Borehole advanced at southwestern portion of Property to determine possible contaminants.	1 to 5 12	Metals As, Sb, Se CN- Hg EC SAR Cr(VI) B-HWS PAHs PHCs BTEX VOCs	Metals As, Sb, Se CN- Hg Cr(VI) Na Cl PAHs PHCs BTEX VOCs

APPENDIX B

GROUNDED ENGINEERING

Date Started : May 3, 2021
Position : E: 611836, N: 4826307 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 101

File No. : 21-067 **Project** : 60 Dundas Street East, Mississauga, ON **Client** : Almega Asset Management

drill method : *Truck-mounted rig*

solid stem augers OD=150 mm

elev depth (m)	description	graphic log	number	type	SPT N-value
110.9	**GROUND SURFACE**				
	25mm **ASPHALT**				
	100mm **AGGREGATE**				
	FILL, sand, some silt, trace organics, organic odour, loose to compact, dark brown, moist		1	SS	11
			2	SS	9
	...at 1.5 m, dense, some gravel		3A	SS	36
108.9 / 2.0	...at 2.0 m, trace rock fragments, inferred cobbles		3B	SS	
	CLAYEY SILT, sandy, some gravel, stiff to very stiff, grey, moist (GLACIAL TILL)		4	SS	12
			5	SS	16
	...at 3.8 m, hard, trace rock fragments, inferred cobbles		6	SS	41
			7	SS	91 / 225mm
104.6 / 6.3	**INFERRED BEDROCK**, shale and limestone fragments, grey		8A	SS	81 / 225mm
			8B	SS	
103.5 / 7.4			9	SS	70 / 75mm

depth scale (m) 0 1 2 3 4 5 6 7

well details

elevation (m) 110 109 108 107 106 105 104

undrained shear strength (kPa)
○ unconfined + field vane
● pocket penetrometer ■ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS1: PAHs
SS2: H-Ms, Metals, ORPs
SS3B: PCBs
SS4: BTEX, PHCs
SS7: BTEX, VOCs

END OF BOREHOLE

Dry and open upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

Date	Water Depth (m)	Elevation (m)
May 4, 2021	4.7	106.2
May 6, 2021	3.5	107.4
May 10, 2021	3.3	107.6

file: 21-067.gpj

Tech : OM | **PM** : DK / JH | **Rev** : MD

GROUNDED ENGINEERING

Date Started : May 3, 2021
Position : E: 611879, N: 4826347 (UTM 17T)
Elev. Datum : Geodetic

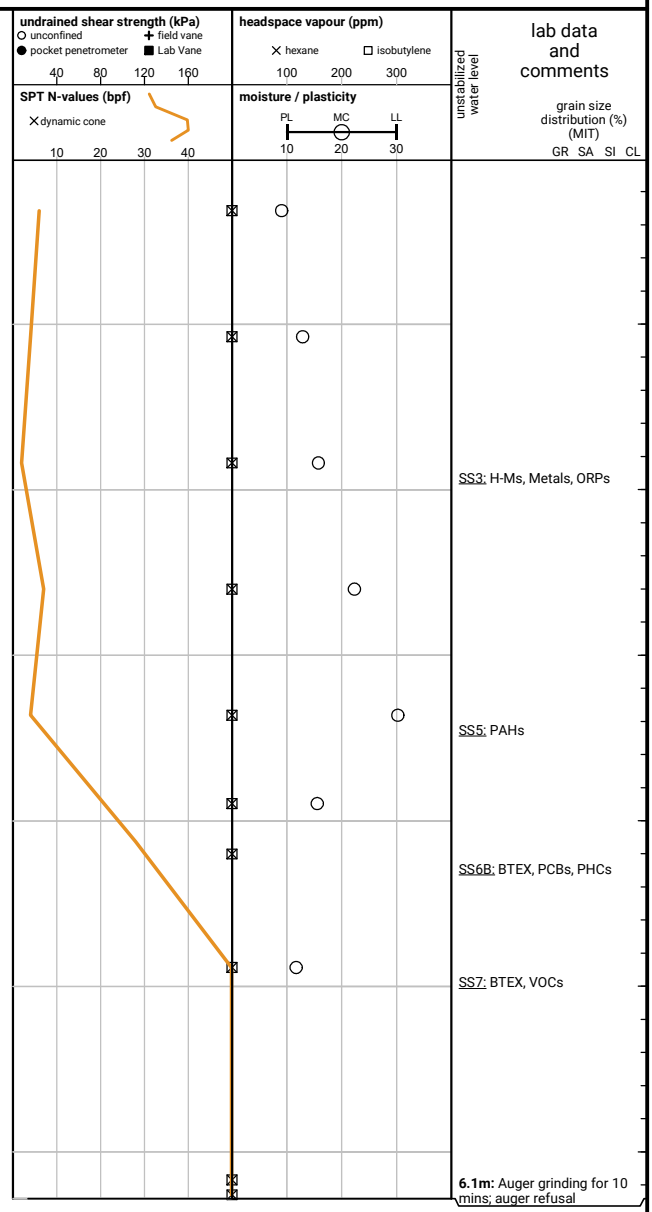
BOREHOLE LOG 102

File No. : 21-067 **Project** : 60 Dundas Street East, Mississauga, ON **Client** : Almega Asset Management

drill method : *Truck-mounted rig*

solid stem augers OD=150 mm

elev depth (m)	description	graphic log	number	type	SPT N-value
110.0	**GROUND SURFACE**				
	100mm **TOPSOIL**				
	FILL, sand, some silt, trace clay, trace gravel, trace rootlets, trace organics, organic odour, loose to very loose, dark brown, moist		1	SS	6
	...at 0.8 m, trace cinders		2	SS	4
			3	SS	2
	...at 2.3 m, silty		4	SS	7
	...at 3.0 m, dark grey and black		5	SS	4
106.0	...at 3.8 m, compact		6A	SS	
4.0	**CLAYEY SILT**, sandy, some gravel, very stiff hard, grey, moist (GLACIAL TILL)		6B	SS	28
			7	SS	64
103.9					
103.7	**INFERRED BEDROCK**, shale and limestone fragments, grey		8	SS	50 / 125mm
6.3			9	SS	50 / 50mm



END OF BOREHOLE
Auger refusal on inferred bedrock

Dry and open upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

Date	Water Depth (m)	Elevation (m)
May 4, 2021	4.7	105.3
May 6, 2021	4.0	106.0
May 10, 2021	3.8	106.2

file: 21-067.gpj

Tech : OM | **PM** : DK / JH | **Rev** : MD

GROUNDED ENGINEERING

Date Started : May 3, 2021
Position : E: 611901, N: 4826243 (UTM 17T)
Elev. Datum : Geodetic

BOREHOLE LOG 103

File No. : 21-067 **Project** : 60 Dundas Street East, Mississauga, ON **Client** : Almega Asset Management

drill method : *Truck-mounted rig*

solid stem augers OD=150 mm

elev depth (m)	description	graphic log	number	type	SPT N-value
109.4	**GROUND SURFACE**				
109.2 / 0.2	50mm **ASPHALT** 100mm **AGGREGATE**				
	FILL, sand, some silt, trace clay, trace organics, organic odour, loose to compact, dark brown, moist		1	SS	8
	...at 0.8 m, brown		2	SS	13
	...at 1.5 m, clayey seams		3A	SS	
107.7 / 1.7	**CLAYEY SILT**, sandy, some gravel, very stiff to hard, grey, moist (GLACIAL TILL)		3B	SS	14
			4	SS	19
			5	SS	35
	...at 4.6 m, shale and limestone fragments		6	SS	96 / 275mm
104.3 / 5.1			7	SS	50 / 75mm

depth scale (m): 0, 1, 2, 3, 4, 5
elevation (m): 109, 108, 107, 106, 105

well details

undrained shear strength (kPa)
○ unconfined + field vane
● pocket penetrometer ■ Lab Vane
40 80 120 160

SPT N-values (bpf)
× dynamic cone
10 20 30 40

headspace vapour (ppm)
× hexane □ isobutylene
100 200 300

moisture / plasticity
PL MC LL
10 20 30

unstabilized water level

lab data and comments

grain size distribution (%) (MIT)
GR SA SI CL

SS1: H-Ms, Metals, ORPs
SS2: PAHs
SS3B: BTEX, PHCs
16 21 41 22
SS5: BTEX, VOCs
4.9m: Auger grinding for 10 mins; Auger refusal; shale powder on tip of auger and spoon

END OF BOREHOLE
Auger refusal on inferred bedrock

Dry and open upon completion of drilling.

50 mm dia. monitoring well installed.
No. 10 screen

GROUNDWATER LEVELS

Date	Water Depth (m)	Elevation (m)
May 4, 2021	4.6	104.8
May 6, 2021	4.1	105.3
May 10, 2021	4.1	105.3

file: 21-067.gpj

Tech : OM | **PM** : DK / JH | **Rev** : MD

APPENDIX C

Grounded Engineering Inc
ATTN: ZENITH WONG
12 Banigan Drive
TORONTO ON M4H 1E9

Date Received: 04-MAY-21
Report Date: 12-MAY-21 13:27 (MT)
Version: FINAL

Client Phone: 647-264-7932

Certificate of Analysis

Lab Work Order #: L2583177

Project P.O. #: NOT SUBMITTED
Job Reference: 21-067
C of C Numbers: 20-888179, 20-888180
Legal Site Desc:

Jennifer Barkshire-Paterson
Account Manager

Summary of Guideline Exceedances

ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use						
L2583177-2	BH 101 SS2	Physical Tests	Conductivity	0.921	0.7	mS/cm
		Saturated Paste Extractables	SAR	17.6	5	SAR
L2583177-4	BH 101 SS4	Hydrocarbons	F2 (C10-C16)	13	10	ug/g
L2583177-6	BH 102 SS3	Physical Tests	Conductivity	1.37	0.7	mS/cm
		Saturated Paste Extractables	SAR	23.1	5	SAR
L2583177-10	BH 103 SS1	Physical Tests	Conductivity	1.85	0.7	mS/cm
		Saturated Paste Extractables	SAR	31.7	5	SAR
L2583177-12	BH 103 SS3B	Hydrocarbons	F2 (C10-C16)	21	10	ug/g
L2583177-14	DUP 1	Physical Tests	Conductivity	1.15	0.7	mS/cm
		Saturated Paste Extractables	SAR	20.2	5	SAR
L2583177-16	DUP 3	Hydrocarbons	F2 (C10-C16)	14	10	ug/g

Physical Tests - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID							
				L2583177-1	L2583177-2	L2583177-3	L2583177-4	L2583177-5	L2583177-6	L2583177-7	L2583177-8	L2583177-9
				03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
				BH 101 SS1	BH 101 SS2	BH 101 SS3B	BH 101 SS4	BH 101 SS7	BH 102 SS3	BH 102 SS5	BH 102 SS6B	BH 102 SS7
Conductivity	mS/cm	0.7	-		0.921				1.37			
% Moisture	%	-	-	9.80	9.35	9.70	9.41	7.72	5.77	22.8	8.55	7.05
pH	pH units	-	-		7.62				7.91			

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Physical Tests - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2583177-10	L2583177-11	L2583177-12	L2583177-13	L2583177-14	L2583177-15	L2583177-16	L2583177-17	L2583177-18
				Sample Date	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
				Sample ID	BH 103 SS1	BH 103 SS2	BH 103 SS3B	BH 103 SS5	DUP 1	DUP 2	DUP 3	DUP 4	DUP 5
Conductivity	mS/cm	0.7	-		1.85				1.15				
% Moisture	%	-	-		9.87	7.43	10.6	12.0	7.91	9.48	9.03	8.53	7.29
pH	pH units	-	-		7.87				7.97				

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Cyanides - SOIL

		Guide Limits					
Lab ID				L2583177-2	L2583177-6	L2583177-10	L2583177-14
Sample Date				03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
Sample ID				BH 101 SS2	BH 102 SS3	BH 103 SS1	DUP 1
Analyte	**Unit**	**#1**	**#2**				
Cyanide, Weak Acid Diss	ug/g	0.051	-	<0.050	<0.050	<0.050	<0.050

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

ANALYTICAL REPORT

Saturated Paste Extractables - SOIL

			Lab ID	L2583177-2	L2583177-6	L2583177-10	L2583177-14
			Sample Date	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
			Sample ID	BH 101 SS2	BH 102 SS3	BH 103 SS1	DUP 1
Analyte	**Unit**	**Guide Limits #1**	**#2**				
SAR	SAR	5	-	17.6	23.1	31.7	20.2
Calcium (Ca)	mg/L	-	-	6.17	6.16	4.85	7.19
Magnesium (Mg)	mg/L	-	-	0.90	2.15	2.68	0.98
Sodium (Na)	mg/L	-	-	177	261	350	218

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Metals - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2583177-2 / Sample Date: 03-MAY-21 / Sample ID: BH 101 SS2	Lab ID: L2583177-6 / Sample Date: 03-MAY-21 / Sample ID: BH 102 SS3	Lab ID: L2583177-10 / Sample Date: 03-MAY-21 / Sample ID: BH 103 SS1	Lab ID: L2583177-14 / Sample Date: 03-MAY-21 / Sample ID: DUP 1
Antimony (Sb)	ug/g	1.3	-	<1.0	<1.0	<1.0	<1.0
Arsenic (As)	ug/g	18	-	3.2	2.6	3.6	3.4
Barium (Ba)	ug/g	220	-	33.7	34.4	42.4	41.7
Beryllium (Be)	ug/g	2.5	-	<0.50	<0.50	<0.50	<0.50
Boron (B)	ug/g	36	-	<5.0	<5.0	<5.0	<5.0
Boron (B), Hot Water Ext.	ug/g	1.5	-	0.14	0.14	0.23	0.14
Cadmium (Cd)	ug/g	1.2	-	<0.50	<0.50	<0.50	<0.50
Chromium (Cr)	ug/g	70	-	9.5	8.4	10.9	10.6
Cobalt (Co)	ug/g	22	-	4.2	3.9	4.3	4.4
Copper (Cu)	ug/g	92	-	19.2	10.8	21.0	17.2
Lead (Pb)	ug/g	120	-	8.4	9.3	47.4	9.6
Mercury (Hg)	ug/g	0.27	-	0.0188	0.0241	0.0427	0.0217
Molybdenum (Mo)	ug/g	2	-	<1.0	<1.0	<1.0	<1.0
Nickel (Ni)	ug/g	82	-	9.2	7.5	9.0	8.9
Selenium (Se)	ug/g	1.5	-	<1.0	<1.0	<1.0	<1.0
Silver (Ag)	ug/g	0.5	-	<0.20	<0.20	<0.20	<0.20
Thallium (Tl)	ug/g	1	-	<0.50	<0.50	<0.50	<0.50
Uranium (U)	ug/g	2.5	-	<1.0	<1.0	<1.0	<1.0
Vanadium (V)	ug/g	86	-	17.9	16.5	20.7	20.7
Zinc (Zn)	ug/g	290	-	32.6	27.1	48.0	35.0

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

ANALYTICAL REPORT

Speciated Metals - SOIL

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID	
				L2583177-2	L2583177-6	L2583177-10	L2583177-14
				03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
				BH 101 SS2	BH 102 SS3	BH 103 SS1	DUP 1
Chromium, Hexavalent	ug/g	0.66	-	0.35	0.32	0.33	0.27

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Volatile Organic Compounds - SOIL

				Lab ID	L2583177-4	L2583177-5	L2583177-8	L2583177-9	L2583177-12	L2583177-13	L2583177-16	L2583177-17
				Sample Date	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
				Sample ID	BH 101 SS4	BH 101 SS7	BH 102 SS6B	BH 102 SS7	BH 103 SS3B	BH 103 SS5	DUP 3	DUP 4
		Guide Limits										
Analyte	Unit	#1	#2									
Acetone	ug/g	0.5	-		<0.50		<0.50		<0.50		<0.50	
Benzene	ug/g	0.02	-	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	<0.0068	
Bromodichloromethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Bromoform	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Bromomethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Carbon tetrachloride	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Chlorobenzene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Dibromochloromethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Chloroform	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,2-Dibromoethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,2-Dichlorobenzene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,3-Dichlorobenzene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,4-Dichlorobenzene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Dichlorodifluoromethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,1-Dichloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,2-Dichloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,1-Dichloroethylene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
cis-1,2-Dichloroethylene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
trans-1,2-Dichloroethylene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Methylene Chloride	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
1,2-Dichloropropane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
cis-1,3-Dichloropropene	ug/g	-	-		<0.030		<0.030		<0.030		<0.030	
trans-1,3-Dichloropropene	ug/g	-	-		<0.030		<0.030		<0.030		<0.030	
1,3-Dichloropropene (cis & trans)	ug/g	0.05	-		<0.042		<0.042		<0.042		<0.042	
Ethylbenzene	ug/g	0.05	-	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	<0.018	
n-Hexane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Methyl Ethyl Ketone	ug/g	0.5	-		<0.50		<0.50		<0.50		<0.50	
Methyl Isobutyl Ketone	ug/g	0.5	-		<0.50		<0.50		<0.50		<0.50	
MTBE	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	
Styrene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050	

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

Volatile Organic Compounds - SOIL

				Lab ID	L2583177-4	L2583177-5	L2583177-8	L2583177-9	L2583177-12	L2583177-13	L2583177-16	L2583177-17
				Sample Date	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
				Sample ID	BH 101 SS4	BH 101 SS7	BH 102 SS6B	BH 102 SS7	BH 103 SS3B	BH 103 SS5	DUP 3	DUP 4
		Guide Limits										
Analyte	Unit	#1	#2									
1,1,1,2-Tetrachloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050
1,1,2,2-Tetrachloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050
Tetrachloroethylene	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050
Toluene	ug/g	0.2	-	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
1,1,1-Trichloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050
1,1,2-Trichloroethane	ug/g	0.05	-		<0.050		<0.050		<0.050		<0.050
Trichloroethylene	ug/g	0.05	-		<0.010		<0.010		<0.010		<0.010
Trichlorofluoromethane	ug/g	0.25	-		<0.050		<0.050		<0.050		<0.050
Vinyl chloride	ug/g	0.02	-		<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	<0.020
m+p-Xylenes	ug/g	-	-	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030	<0.030
Xylenes (Total)	ug/g	0.05	-	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
Surrogate: 4-Bromofluorobenzene	%	-	-	118.2	129.6	124.8	119.4	122.5	120.0	118.9	125.2
Surrogate: 1,4-Difluorobenzene	%	-	-	112.6	113.4	119.1	107.0	113.8	108.6	112.5	111.5

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Hydrocarbons - SOIL

			Lab ID	L2583177-4	L2583177-8	L2583177-12	L2583177-16
			Sample Date	03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
			Sample ID	BH 101 SS4	BH 102 SS6B	BH 103 SS3B	DUP 3
Analyte	**Unit**	**Guide Limits #1**	**#2**				
F1 (C6-C10)	ug/g	25	-	<5.0	<5.0	<5.0	<5.0
F1-BTEX	ug/g	25	-	<5.0	<5.0	<5.0	<5.0
F2 (C10-C16)	ug/g	10	-	13	<10	21	14
F3 (C16-C34)	ug/g	240	-	50	<50	67	<50
F4 (C34-C50)	ug/g	120	-	<50	<50	<50	<50
Total Hydrocarbons (C6-C50)	ug/g	-	-	<72	<72	88	<72
Chrom. to baseline at nC50		-	-	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	90.9	86.9	88.6	86.6
Surrogate: 3,4-Dichlorotoluene	%	-	-	106.4	124.0	95.6	81.2

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Polycyclic Aromatic Hydrocarbons - SOIL

		Guide Limits					
Lab ID				L2583177-1	L2583177-7	L2583177-11	L2583177-18
Sample Date				03-MAY-21	03-MAY-21	03-MAY-21	03-MAY-21
Sample ID				BH 101 SS1	BH 102 SS5	BH 103 SS2	DUP 5
Analyte	**Unit**	**#1**	**#2**				
Acenaphthene	ug/g	0.072	-	<0.050	<0.050	<0.050	<0.050
Acenaphthylene	ug/g	0.093	-	<0.050	<0.050	<0.050	<0.050
Anthracene	ug/g	0.22	-	<0.050	<0.050	<0.050	<0.050
Benzo(a)anthracene	ug/g	0.36	-	<0.050	0.094	<0.050	<0.050
Benzo(a)pyrene	ug/g	0.3	-	<0.050	0.100	<0.050	<0.050
Benzo(b&j)fluoranthene	ug/g	0.47	-	<0.050	0.112	<0.050	<0.050
Benzo(g,h,i)perylene	ug/g	0.68	-	<0.050	0.078	<0.050	<0.050
Benzo(k)fluoranthene	ug/g	0.48	-	<0.050	0.111	<0.050	<0.050
Chrysene	ug/g	2.8	-	<0.050	0.115	<0.050	<0.050
Dibenz(a,h)anthracene	ug/g	0.1	-	<0.050	<0.050	<0.050	<0.050
Fluoranthene	ug/g	0.69	-	<0.050	0.214	<0.050	<0.050
Fluorene	ug/g	0.19	-	<0.050	<0.050	<0.050	<0.050
Indeno(1,2,3-cd)pyrene	ug/g	0.23	-	<0.050	0.076	<0.050	<0.050
1+2-Methylnaphthalenes	ug/g	0.59	-	<0.042	<0.042	<0.042	<0.042
1-Methylnaphthalene	ug/g	0.59	-	<0.030	<0.030	<0.030	<0.030
2-Methylnaphthalene	ug/g	0.59	-	<0.030	<0.030	<0.030	<0.030
Naphthalene	ug/g	0.09	-	<0.013	<0.013	<0.013	<0.013
Phenanthrene	ug/g	0.69	-	<0.046	0.086	<0.046	<0.046
Pyrene	ug/g	1	-	<0.050	0.172	<0.050	<0.050
Surrogate: 2-Fluorobiphenyl	%	-	-	81.6	86.1	82.0	78.9
Surrogate: d14-Terphenyl	%	-	-	82.3	89.0	82.2	78.5

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Polychlorinated Biphenyls - SOIL

		Guide Limits				
Lab ID				L2583177-3	L2583177-8	L2583177-15
Sample Date				03-MAY-21	03-MAY-21	03-MAY-21
Sample ID				BH 101 SS3B	BH 102 SS6B	DUP 2
Analyte	**Unit**	**#1**	**#2**			
Aroclor 1242	ug/g	-	-	<0.010	<0.010	<0.010
Aroclor 1248	ug/g	-	-	<0.010	<0.010	<0.010
Aroclor 1254	ug/g	-	-	<0.010	<0.010	<0.010
Aroclor 1260	ug/g	-	-	<0.010	<0.010	<0.010
Total PCBs	ug/g	0.3	-	<0.020	<0.020	<0.020
Surrogate: d14-Terphenyl	%	-	-	94.7	93.3	92.8

Guide Limit #1: T8-Soil-Res/Park/Inst/Ind/Com/Commu Property Use

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

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
B-HWS-R511-WT	Soil	Boron-HWE-O.Reg 153/04 (July 2011)	HW EXTR, EPA 6010B

A dried solid sample is extracted with calcium chloride, the sample undergoes a heating process. After cooling the sample is filtered and analyzed by ICP/OES.

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

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).

CN-WAD-R511-WT	Soil	Cyanide (WAD)-O.Reg 153/04 (July 2011)	MOE 3015/APHA 4500CN I-WAD

The sample is extracted with a strong base for 16 hours, and then filtered. The filtrate is then distilled where the cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.

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

CR-CR6-IC-WT	Soil	Hexavalent Chromium in Soil	SW846 3060A/7199

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution.

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

EC-WT	Soil	Conductivity (EC)	MOEE E3138

A representative subsample is tumbled with de-ionized (DI) water. The ratio of water to soil is 2:1 v/w. After tumbling the sample is then analyzed by a conductivity meter.

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

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

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

Hydrocarbon results are expressed on a dry weight basis.

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

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

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.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**

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.
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).

HG-200.2-CVAA-WT Soil Mercury in Soil by CVAAS EPA 200.2/1631E (mod)

Soil samples are digested with nitric and hydrochloric acids, followed by analysis by CVAAS.

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

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

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

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

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)

Reference Information

Methods Listed (if applicable):

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

PCB-511-WT	Soil	PCB-O.Reg 153/04 (July 2011)	SW846 3510/8082

An aliquot of a solid sample is extracted with a solvent, extract is cleaned up and analyzed on the 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).

PH-WT	Soil	pH	MOEE E3137A

A minimum 10g portion of the sample is extracted with 20mL of 0.01M calcium chloride solution by shaking for at least 30 minutes. The aqueous layer is separated from the soil and then analyzed using a pH meter and electrode.

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

SAR-R511-WT	Soil	SAR-O.Reg 153/04 (July 2011)	SW846 6010C

A dried, disaggregated solid sample is extracted with deionized water, the aqueous extract is separated from the solid, acidified and then analyzed using a ICP/OES. The concentrations of Na, Ca and Mg are reported as per CALA requirements for calculated parameters. These individual parameters are not for comparison to any guideline.

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

VOC-1,3-DCP-CALC-WT	Soil	Regulation 153 VOCs	SW8260B/SW8270C
VOC-511-HS-WT	Soil	VOC-O.Reg 153/04 (July 2011)	SW846 8260 (511)

Soil and sediment samples are extracted in methanol and analyzed by headspace-GC/MS.

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

20-888179 20-888180

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

Laboratory Definition Code	Laboratory Location
WT	ALS ENVIRONMENTAL - WATERLOO, ONTARIO, CANADA

Reference Information

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

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
B-HWS-R511-WT	**Soil**							
Batch R5455870								
WG3532119-4 DUP		**L2583187-5**						
Boron (B), Hot Water Ext.		0.17	0.15		ug/g	9.9	30	11-MAY-21
WG3532119-2 IRM		**WT SAR4**						
Boron (B), Hot Water Ext.			107.4		%		70-130	11-MAY-21
WG3532119-3 LCS								
Boron (B), Hot Water Ext.			101.0		%		70-130	11-MAY-21
WG3532119-1 MB								
Boron (B), Hot Water Ext.			<0.10		ug/g		0.1	11-MAY-21
BTX-511-HS-WT	**Soil**							
Batch R5456196								
WG3529385-4 DUP		**WG3529385-3**						
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	12-MAY-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	12-MAY-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	12-MAY-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	12-MAY-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	12-MAY-21
WG3529385-2 LCS								
Benzene			106.7		%		70-130	12-MAY-21
Ethylbenzene			105.0		%		70-130	12-MAY-21
m+p-Xylenes			105.1		%		70-130	12-MAY-21
o-Xylene			105.4		%		70-130	12-MAY-21
Toluene			106.2		%		70-130	12-MAY-21
WG3529385-1 MB								
Benzene			<0.0068		ug/g		0.0068	12-MAY-21
Ethylbenzene			<0.018		ug/g		0.018	12-MAY-21
m+p-Xylenes			<0.030		ug/g		0.03	12-MAY-21
o-Xylene			<0.020		ug/g		0.02	12-MAY-21
Toluene			<0.080		ug/g		0.08	12-MAY-21
Surrogate: 1,4-Difluorobenzene			121.5		%		50-140	12-MAY-21
Surrogate: 4-Bromofluorobenzene			123.9		%		50-140	12-MAY-21
WG3529385-5 MS		**WG3529385-3**						
Benzene			130.0		%		60-140	12-MAY-21
Ethylbenzene			120.2		%		60-140	12-MAY-21
m+p-Xylenes			121.3		%		60-140	12-MAY-21
o-Xylene			122.7		%		60-140	12-MAY-21
Toluene			124.6		%		60-140	12-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CN-WAD-R511-WT	**Soil**							
Batch R5455638								
WG3530885-7 DUP		**L2583177-6**						
Cyanide, Weak Acid Diss		<0.050	<0.050	RPD-NA	ug/g	N/A	35	11-MAY-21
WG3530885-6 LCS								
Cyanide, Weak Acid Diss			90.0		%		80-120	11-MAY-21
WG3530885-5 MB								
Cyanide, Weak Acid Diss			<0.050		ug/g		0.05	11-MAY-21
WG3530885-8 MS		**L2583177-6**						
Cyanide, Weak Acid Diss			93.0		%		70-130	11-MAY-21
CR-CR6-IC-WT	**Soil**							
Batch R5455265								
WG3531081-4 CRM		**WT-SQC012**						
Chromium, Hexavalent			102.6		%		70-130	10-MAY-21
WG3531081-3 DUP		**L2583177-6**						
Chromium, Hexavalent		0.32	0.30		ug/g	7.4	35	10-MAY-21
WG3531081-2 LCS								
Chromium, Hexavalent			99.7		%		80-120	10-MAY-21
WG3531081-1 MB								
Chromium, Hexavalent			<0.20		ug/g		0.2	10-MAY-21
EC-WT	**Soil**							
Batch R5455853								
WG3532227-4 DUP		**WG3532227-3**						
Conductivity		0.326	0.317		mS/cm	2.8	20	11-MAY-21
WG3532227-2 IRM		**WT SAR4**						
Conductivity			101.6		%		70-130	11-MAY-21
WG3532509-1 LCS								
Conductivity			103.5		%		90-110	11-MAY-21
WG3532227-1 MB								
Conductivity			<0.0040		mS/cm		0.004	11-MAY-21
F1-HS-511-WT	**Soil**							
Batch R5456196								
WG3529385-4 DUP		**WG3529385-3**						
F1 (C6-C10)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	12-MAY-21
WG3529385-2 LCS								
F1 (C6-C10)			113.2		%		80-120	12-MAY-21
WG3529385-1 MB								
F1 (C6-C10)			<5.0		ug/g		5	12-MAY-21
Surrogate: 3,4-Dichlorotoluene			119.2		%		60-140	12-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Soil**							
Batch R5456196								
WG3529385-5 MS		**WG3529385-3**						
F1 (C6-C10)			112.2		%		60-140	12-MAY-21
F2-F4-511-WT	**Soil**							
Batch R5455153								
WG3530882-3 DUP		**WG3530882-5**						
F2 (C10-C16)		<10	<10	RPD-NA	ug/g	N/A	30	11-MAY-21
F3 (C16-C34)		<50	<50	RPD-NA	ug/g	N/A	30	11-MAY-21
F4 (C34-C50)		<50	<50	RPD-NA	ug/g	N/A	30	11-MAY-21
WG3530882-2 LCS								
F2 (C10-C16)			96.9		%		80-120	10-MAY-21
F3 (C16-C34)			96.7		%		80-120	10-MAY-21
F4 (C34-C50)			92.9		%		80-120	10-MAY-21
WG3530882-1 MB								
F2 (C10-C16)			<10		ug/g		10	10-MAY-21
F3 (C16-C34)			<50		ug/g		50	10-MAY-21
F4 (C34-C50)			<50		ug/g		50	10-MAY-21
Surrogate: 2-Bromobenzotrifluoride			93.8		%		60-140	10-MAY-21
WG3530882-4 MS		**WG3530882-5**						
F2 (C10-C16)			93.8		%		60-140	11-MAY-21
F3 (C16-C34)			95.8		%		60-140	11-MAY-21
F4 (C34-C50)			93.2		%		60-140	11-MAY-21
HG-200.2-CVAA-WT	**Soil**							
Batch R5455781								
WG3532225-2 CRM		**WT-SS-2**						
Mercury (Hg)			105.7		%		70-130	11-MAY-21
WG3532225-6 DUP		**WG3532225-5**						
Mercury (Hg)		0.0827	0.0780		ug/g	5.9	40	11-MAY-21
WG3532225-3 LCS								
Mercury (Hg)			107.5		%		80-120	11-MAY-21
WG3532225-1 MB								
Mercury (Hg)			<0.0050		mg/kg		0.005	11-MAY-21
MET-200.2-CCMS-WT	**Soil**							

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5456371								
WG3532225-2 CRM		**WT-SS-2**						
Antimony (Sb)			96.4		%		70-130	11-MAY-21
Arsenic (As)			111.6		%		70-130	11-MAY-21
Barium (Ba)			111.1		%		70-130	11-MAY-21
Beryllium (Be)			104.5		%		70-130	11-MAY-21
Boron (B)			8.4		mg/kg		3.5-13.5	11-MAY-21
Cadmium (Cd)			108.0		%		70-130	11-MAY-21
Chromium (Cr)			104.8		%		70-130	11-MAY-21
Cobalt (Co)			111.1		%		70-130	11-MAY-21
Copper (Cu)			114.9		%		70-130	11-MAY-21
Lead (Pb)			104.1		%		70-130	11-MAY-21
Molybdenum (Mo)			100.6		%		70-130	11-MAY-21
Nickel (Ni)			114.1		%		70-130	11-MAY-21
Selenium (Se)			0.11		mg/kg		0-0.34	11-MAY-21
Silver (Ag)			112.8		%		70-130	11-MAY-21
Thallium (Tl)			0.073		mg/kg		0.029-0.129	11-MAY-21
Uranium (U)			91.9		%		70-130	11-MAY-21
Vanadium (V)			109.0		%		70-130	11-MAY-21
Zinc (Zn)			109.3		%		70-130	11-MAY-21
WG3532225-6 DUP		**WG3532225-5**						
Antimony (Sb)		0.19	0.18		ug/g	5.1	30	11-MAY-21
Arsenic (As)		2.38	2.11		ug/g	12	30	11-MAY-21
Barium (Ba)		44.9	42.1		ug/g	6.5	40	11-MAY-21
Beryllium (Be)		0.28	0.24		ug/g	14	30	11-MAY-21
Boron (B)		<5.0	<5.0	RPD-NA	ug/g	N/A	30	11-MAY-21
Cadmium (Cd)		0.063	0.058		ug/g	8.8	30	11-MAY-21
Chromium (Cr)		14.1	12.5		ug/g	12	30	11-MAY-21
Cobalt (Co)		4.99	4.37		ug/g	13	30	11-MAY-21
Copper (Cu)		11.8	10.5		ug/g	12	30	11-MAY-21
Lead (Pb)		13.5	12.3		ug/g	9.4	40	11-MAY-21
Molybdenum (Mo)		0.17	0.18		ug/g	6.6	40	11-MAY-21
Nickel (Ni)		10.4	9.32		ug/g	11	30	11-MAY-21
Selenium (Se)		<0.20	<0.20	RPD-NA	ug/g	N/A	30	11-MAY-21
Silver (Ag)		<0.10	0.12	RPD-NA	ug/g	N/A	40	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5456371								
WG3532225-6 DUP		**WG3532225-5**						
Thallium (Tl)		0.069	0.065		ug/g	5.7	30	11-MAY-21
Uranium (U)		0.435	0.344		ug/g	23	30	11-MAY-21
Vanadium (V)		19.7	17.5		ug/g	12	30	11-MAY-21
Zinc (Zn)		31.9	29.0		ug/g	9.5	30	11-MAY-21
WG3532225-4 LCS								
Antimony (Sb)			106.6		%		80-120	11-MAY-21
Arsenic (As)			102.1		%		80-120	11-MAY-21
Barium (Ba)			100.6		%		80-120	11-MAY-21
Beryllium (Be)			99.0		%		80-120	11-MAY-21
Boron (B)			97.6		%		80-120	11-MAY-21
Cadmium (Cd)			99.6		%		80-120	11-MAY-21
Chromium (Cr)			100.6		%		80-120	11-MAY-21
Cobalt (Co)			101.1		%		80-120	11-MAY-21
Copper (Cu)			99.5		%		80-120	11-MAY-21
Lead (Pb)			101.5		%		80-120	11-MAY-21
Molybdenum (Mo)			100.3		%		80-120	11-MAY-21
Nickel (Ni)			98.7		%		80-120	11-MAY-21
Selenium (Se)			102.9		%		80-120	11-MAY-21
Silver (Ag)			103.3		%		80-120	11-MAY-21
Thallium (Tl)			101.6		%		80-120	11-MAY-21
Uranium (U)			98.5		%		80-120	11-MAY-21
Vanadium (V)			102.8		%		80-120	11-MAY-21
Zinc (Zn)			100.8		%		80-120	11-MAY-21
WG3532225-1 MB								
Antimony (Sb)			<0.10		mg/kg		0.1	11-MAY-21
Arsenic (As)			<0.10		mg/kg		0.1	11-MAY-21
Barium (Ba)			<0.50		mg/kg		0.5	11-MAY-21
Beryllium (Be)			<0.10		mg/kg		0.1	11-MAY-21
Boron (B)			<5.0		mg/kg		5	11-MAY-21
Cadmium (Cd)			<0.020		mg/kg		0.02	11-MAY-21
Chromium (Cr)			<0.50		mg/kg		0.5	11-MAY-21
Cobalt (Co)			<0.10		mg/kg		0.1	11-MAY-21
Copper (Cu)			<0.50		mg/kg		0.5	11-MAY-21
Lead (Pb)			<0.50		mg/kg		0.5	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-200.2-CCMS-WT	**Soil**							
Batch R5456371								
WG3532225-1 MB								
Molybdenum (Mo)			<0.10		mg/kg		0.1	11-MAY-21
Nickel (Ni)			<0.50		mg/kg		0.5	11-MAY-21
Selenium (Se)			<0.20		mg/kg		0.2	11-MAY-21
Silver (Ag)			<0.10		mg/kg		0.1	11-MAY-21
Thallium (Tl)			<0.050		mg/kg		0.05	11-MAY-21
Uranium (U)			<0.050		mg/kg		0.05	11-MAY-21
Vanadium (V)			<0.20		mg/kg		0.2	11-MAY-21
Zinc (Zn)			<2.0		mg/kg		2	11-MAY-21
MOISTURE-WT	**Soil**							
Batch R5454644								
WG3530662-3 DUP		**L2583177-1**						
% Moisture		9.80	10.2		%	4.0	20	07-MAY-21
WG3530662-2 LCS								
% Moisture			99.2		%		90-110	07-MAY-21
WG3530662-1 MB								
% Moisture			<0.25		%		0.25	07-MAY-21
PAH-511-WT	**Soil**							
Batch R5455082								
WG3530592-3 DUP		**WG3530592-5**						
1-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	10-MAY-21
2-Methylnaphthalene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	10-MAY-21
Acenaphthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Acenaphthylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Benzo(a)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Benzo(a)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Benzo(b&j)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Benzo(g,h,i)perylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Benzo(k)fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Chrysene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Dibenz(a,h)anthracene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Fluoranthene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Fluorene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
Indeno(1,2,3-cd)pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5455082								
WG3530592-3 DUP		**WG3530592-5**						
Naphthalene		<0.013	<0.013	RPD-NA	ug/g	N/A	40	10-MAY-21
Phenanthrene		<0.046	<0.046	RPD-NA	ug/g	N/A	40	10-MAY-21
Pyrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	10-MAY-21
WG3530592-2 LCS								
1-Methylnaphthalene			88.0		%		50-140	10-MAY-21
2-Methylnaphthalene			85.9		%		50-140	10-MAY-21
Acenaphthene			84.5		%		50-140	10-MAY-21
Acenaphthylene			79.1		%		50-140	10-MAY-21
Anthracene			73.9		%		50-140	10-MAY-21
Benzo(a)anthracene			82.2		%		50-140	10-MAY-21
Benzo(a)pyrene			72.6		%		50-140	10-MAY-21
Benzo(b&j)fluoranthene			71.0		%		50-140	10-MAY-21
Benzo(g,h,i)perylene			81.5		%		50-140	10-MAY-21
Benzo(k)fluoranthene			87.5		%		50-140	10-MAY-21
Chrysene			85.8		%		50-140	10-MAY-21
Dibenz(a,h)anthracene			80.5		%		50-140	10-MAY-21
Fluoranthene			82.3		%		50-140	10-MAY-21
Fluorene			83.5		%		50-140	10-MAY-21
Indeno(1,2,3-cd)pyrene			85.4		%		50-140	10-MAY-21
Naphthalene			84.3		%		50-140	10-MAY-21
Phenanthrene			86.8		%		50-140	10-MAY-21
Pyrene			82.0		%		50-140	10-MAY-21
WG3530592-1 MB								
1-Methylnaphthalene			<0.030		ug/g		0.03	10-MAY-21
2-Methylnaphthalene			<0.030		ug/g		0.03	10-MAY-21
Acenaphthene			<0.050		ug/g		0.05	10-MAY-21
Acenaphthylene			<0.050		ug/g		0.05	10-MAY-21
Anthracene			<0.050		ug/g		0.05	10-MAY-21
Benzo(a)anthracene			<0.050		ug/g		0.05	10-MAY-21
Benzo(a)pyrene			<0.050		ug/g		0.05	10-MAY-21
Benzo(b&j)fluoranthene			<0.050		ug/g		0.05	10-MAY-21
Benzo(g,h,i)perylene			<0.050		ug/g		0.05	10-MAY-21
Benzo(k)fluoranthene			<0.050		ug/g		0.05	10-MAY-21
Chrysene			<0.050		ug/g		0.05	10-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Soil**							
Batch R5455082								
WG3530592-1 MB								
Dibenz(a,h)anthracene			<0.050		ug/g		0.05	10-MAY-21
Fluoranthene			<0.050		ug/g		0.05	10-MAY-21
Fluorene			<0.050		ug/g		0.05	10-MAY-21
Indeno(1,2,3-cd)pyrene			<0.050		ug/g		0.05	10-MAY-21
Naphthalene			<0.013		ug/g		0.013	10-MAY-21
Phenanthrene			<0.046		ug/g		0.046	10-MAY-21
Pyrene			<0.050		ug/g		0.05	10-MAY-21
Surrogate: 2-Fluorobiphenyl			83.2		%		50-140	10-MAY-21
Surrogate: d14-Terphenyl			81.7		%		50-140	10-MAY-21
WG3530592-4 MS		**WG3530592-5**						
1-Methylnaphthalene			86.6		%		50-140	10-MAY-21
2-Methylnaphthalene			84.6		%		50-140	10-MAY-21
Acenaphthene			84.2		%		50-140	10-MAY-21
Acenaphthylene			81.6		%		50-140	10-MAY-21
Anthracene			74.4		%		50-140	10-MAY-21
Benzo(a)anthracene			88.9		%		50-140	10-MAY-21
Benzo(a)pyrene			75.2		%		50-140	10-MAY-21
Benzo(b&j)fluoranthene			72.8		%		50-140	10-MAY-21
Benzo(g,h,i)perylene			77.3		%		50-140	10-MAY-21
Benzo(k)fluoranthene			98.9		%		50-140	10-MAY-21
Chrysene			82.3		%		50-140	10-MAY-21
Dibenz(a,h)anthracene			79.2		%		50-140	10-MAY-21
Fluoranthene			82.7		%		50-140	10-MAY-21
Fluorene			84.9		%		50-140	10-MAY-21
Indeno(1,2,3-cd)pyrene			91.1		%		50-140	10-MAY-21
Naphthalene			81.6		%		50-140	10-MAY-21
Phenanthrene			83.2		%		50-140	10-MAY-21
Pyrene			81.4		%		50-140	10-MAY-21
PCB-511-WT	**Soil**							
Batch R5455032								
WG3530592-3 DUP		**WG3530592-5**						
Aroclor 1242		<0.010	<0.010	RPD-NA	ug/g	N/A	40	10-MAY-21
Aroclor 1248		<0.010	<0.010	RPD-NA	ug/g	N/A	40	10-MAY-21
Aroclor 1254		<0.010	<0.010	RPD-NA	ug/g	N/A	40	10-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PCB-511-WT	**Soil**							
Batch R5455032								
WG3530592-3 DUP		**WG3530592-5**						
Aroclor 1260		<0.010	<0.010	RPD-NA	ug/g	N/A	40	10-MAY-21
WG3530592-2 LCS								
Aroclor 1242			87.1		%		60-140	10-MAY-21
Aroclor 1248			93.8		%		60-140	10-MAY-21
Aroclor 1254			92.3		%		60-140	10-MAY-21
Aroclor 1260			93.3		%		60-140	10-MAY-21
WG3530592-1 MB								
Aroclor 1242			<0.010		ug/g		0.01	10-MAY-21
Aroclor 1248			<0.010		ug/g		0.01	10-MAY-21
Aroclor 1254			<0.010		ug/g		0.01	10-MAY-21
Aroclor 1260			<0.010		ug/g		0.01	10-MAY-21
Surrogate: d14-Terphenyl			87.2		%		60-140	10-MAY-21
WG3530592-4 MS		**WG3530592-5**						
Aroclor 1242			85.6		%		60-140	10-MAY-21
Aroclor 1254			87.8		%		60-140	10-MAY-21
Aroclor 1260			86.8		%		60-140	10-MAY-21
PH-WT	**Soil**							
Batch R5454566								
WG3530733-1 DUP		**WG3530733-2**						
pH		7.66	7.59	J	pH units	0.07	0.3	07-MAY-21
WG3531033-1 LCS								
pH			6.94		pH units		6.9-7.1	07-MAY-21
SAR-R511-WT	**Soil**							
Batch R5455888								
WG3532227-4 DUP		**WG3532227-3**						
Calcium (Ca)		22.9	22.9		mg/L	0.0	30	11-MAY-21
Sodium (Na)		41.5	40.4		mg/L	2.7	30	11-MAY-21
Magnesium (Mg)		1.63	1.59		mg/L	2.5	30	11-MAY-21
WG3532227-2 IRM		**WT SAR4**						
Calcium (Ca)			91.1		%		70-130	11-MAY-21
Sodium (Na)			94.3		%		70-130	11-MAY-21
Magnesium (Mg)			94.9		%		70-130	11-MAY-21
WG3532227-5 LCS								
Calcium (Ca)			108.3		%		80-120	11-MAY-21
Sodium (Na)			101.6		%		80-120	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
SAR-R511-WT	**Soil**							
Batch R5455888								
WG3532227-5 LCS								
Magnesium (Mg)			103.6		%		80-120	11-MAY-21
WG3532227-1 MB								
Calcium (Ca)			<0.50		mg/L		0.5	11-MAY-21
Sodium (Na)			<0.50		mg/L		0.5	11-MAY-21
Magnesium (Mg)			<0.50		mg/L		0.5	11-MAY-21
VOC-511-HS-WT	**Soil**							
Batch R5455597								
WG3529872-4 DUP		**WG3529872-3**						
1,1,1,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,1,2,2-Tetrachloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,1,1-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,1,2-Trichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,1-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,1-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,2-Dibromoethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,2-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,2-Dichloroethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,2-Dichloropropane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,3-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
1,4-Dichlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Acetone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	11-MAY-21
Benzene		<0.0068	<0.0068	RPD-NA	ug/g	N/A	40	11-MAY-21
Bromodichloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Bromoform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Bromomethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Carbon tetrachloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Chlorobenzene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Chloroform		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
cis-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
cis-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	11-MAY-21
Dibromochloromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Dichlorodifluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Ethylbenzene		<0.018	<0.018	RPD-NA	ug/g	N/A	40	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5455597								
WG3529872-4 DUP		**WG3529872-3**						
n-Hexane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Methylene Chloride		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
MTBE		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
m+p-Xylenes		<0.030	<0.030	RPD-NA	ug/g	N/A	40	11-MAY-21
Methyl Ethyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	11-MAY-21
Methyl Isobutyl Ketone		<0.50	<0.50	RPD-NA	ug/g	N/A	40	11-MAY-21
o-Xylene		<0.020	<0.020	RPD-NA	ug/g	N/A	40	11-MAY-21
Styrene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Tetrachloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Toluene		<0.080	<0.080	RPD-NA	ug/g	N/A	40	11-MAY-21
trans-1,2-Dichloroethylene		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
trans-1,3-Dichloropropene		<0.030	<0.030	RPD-NA	ug/g	N/A	40	11-MAY-21
Trichloroethylene		<0.010	<0.010	RPD-NA	ug/g	N/A	40	11-MAY-21
Trichlorofluoromethane		<0.050	<0.050	RPD-NA	ug/g	N/A	40	11-MAY-21
Vinyl chloride		<0.020	<0.020	RPD-NA	ug/g	N/A	40	11-MAY-21
WG3529872-2 LCS								
1,1,1,2-Tetrachloroethane			104.6		%		60-130	11-MAY-21
1,1,2,2-Tetrachloroethane			107.8		%		60-130	11-MAY-21
1,1,1-Trichloroethane			101.1		%		60-130	11-MAY-21
1,1,2-Trichloroethane			98.6		%		60-130	11-MAY-21
1,1-Dichloroethane			100.4		%		60-130	11-MAY-21
1,1-Dichloroethylene			101.5		%		60-130	11-MAY-21
1,2-Dibromoethane			98.3		%		70-130	11-MAY-21
1,2-Dichlorobenzene			96.7		%		70-130	11-MAY-21
1,2-Dichloroethane			93.7		%		60-130	11-MAY-21
1,2-Dichloropropane			97.2		%		70-130	11-MAY-21
1,3-Dichlorobenzene			98.7		%		70-130	11-MAY-21
1,4-Dichlorobenzene			99.1		%		70-130	11-MAY-21
Acetone			104.3		%		60-140	11-MAY-21
Benzene			97.4		%		70-130	11-MAY-21
Bromodichloromethane			103.4		%		50-140	11-MAY-21
Bromoform			115.4		%		70-130	11-MAY-21
Bromomethane			95.2		%		50-140	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5455597								
WG3529872-2 LCS								
Carbon tetrachloride			104.9		%		70-130	11-MAY-21
Chlorobenzene			96.7		%		70-130	11-MAY-21
Chloroform			103.5		%		70-130	11-MAY-21
cis-1,2-Dichloroethylene			103.3		%		70-130	11-MAY-21
cis-1,3-Dichloropropene			93.8		%		70-130	11-MAY-21
Dibromochloromethane			102.3		%		60-130	11-MAY-21
Dichlorodifluoromethane			83.5		%		50-140	11-MAY-21
Ethylbenzene			100.2		%		70-130	11-MAY-21
n-Hexane			95.2		%		70-130	11-MAY-21
Methylene Chloride			101.9		%		70-130	11-MAY-21
MTBE			98.0		%		70-130	11-MAY-21
m+p-Xylenes			96.0		%		70-130	11-MAY-21
Methyl Ethyl Ketone			92.9		%		60-140	11-MAY-21
Methyl Isobutyl Ketone			102.1		%		60-140	11-MAY-21
o-Xylene			107.5		%		70-130	11-MAY-21
Styrene			106.5		%		70-130	11-MAY-21
Tetrachloroethylene			99.7		%		60-130	11-MAY-21
Toluene			99.6		%		70-130	11-MAY-21
trans-1,2-Dichloroethylene			102.0		%		60-130	11-MAY-21
trans-1,3-Dichloropropene			93.4		%		70-130	11-MAY-21
Trichloroethylene			97.0		%		60-130	11-MAY-21
Trichlorofluoromethane			102.0		%		50-140	11-MAY-21
Vinyl chloride			103.0		%		60-140	11-MAY-21
WG3529872-1 MB								
1,1,1,2-Tetrachloroethane			<0.050		ug/g		0.05	11-MAY-21
1,1,2,2-Tetrachloroethane			<0.050		ug/g		0.05	11-MAY-21
1,1,1-Trichloroethane			<0.050		ug/g		0.05	11-MAY-21
1,1,2-Trichloroethane			<0.050		ug/g		0.05	11-MAY-21
1,1-Dichloroethane			<0.050		ug/g		0.05	11-MAY-21
1,1-Dichloroethylene			<0.050		ug/g		0.05	11-MAY-21
1,2-Dibromoethane			<0.050		ug/g		0.05	11-MAY-21
1,2-Dichlorobenzene			<0.050		ug/g		0.05	11-MAY-21
1,2-Dichloroethane			<0.050		ug/g		0.05	11-MAY-21
1,2-Dichloropropane			<0.050		ug/g		0.05	11-MAY-21

Quality Control Report

Workorder: L2583177 Report Date: 12-MAY-21

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Soil**							
Batch R5455597								
WG3529872-1 MB								
1,3-Dichlorobenzene			<0.050		ug/g		0.05	11-MAY-21
1,4-Dichlorobenzene			<0.050		ug/g		0.05	11-MAY-21
Acetone			<0.50		ug/g		0.5	11-MAY-21
Benzene			<0.0068		ug/g		0.0068	11-MAY-21
Bromodichloromethane			<0.050		ug/g		0.05	11-MAY-21
Bromoform			<0.050		ug/g		0.05	11-MAY-21
Bromomethane			<0.050		ug/g		0.05	11-MAY-21
Carbon tetrachloride			<0.050		ug/g		0.05	11-MAY-21
Chlorobenzene			<0.050		ug/g		0.05	11-MAY-21
Chloroform			<0.050		ug/g		0.05	11-MAY-21
cis-1,2-Dichloroethylene			<0.050		ug/g		0.05	11-MAY-21
cis-1,3-Dichloropropene			<0.030		ug/g		0.03	11-MAY-21
Dibromochloromethane			<0.050		ug/g		0.05	11-MAY-21
Dichlorodifluoromethane			<0.050		ug/g		0.05	11-MAY-21
Ethylbenzene			<0.018		ug/g		0.018	11-MAY-21
n-Hexane			<0.050		ug/g		0.05	11-MAY-21
Methylene Chloride			<0.050		ug/g		0.05	11-MAY-21
MTBE			<0.050		ug/g		0.05	11-MAY-21
m+p-Xylenes			<0.030		ug/g		0.03	11-MAY-21
Methyl Ethyl Ketone			<0.50		ug/g		0.5	11-MAY-21
Methyl Isobutyl Ketone			<0.50		ug/g		0.5	11-MAY-21
o-Xylene			<0.020		ug/g		0.02	11-MAY-21
Styrene			<0.050		ug/g		0.05	11-MAY-21
Tetrachloroethylene			<0.050		ug/g		0.05	11-MAY-21
Toluene			<0.080		ug/g		0.08	11-MAY-21
trans-1,2-Dichloroethylene			<0.050		ug/g		0.05	11-MAY-21
trans-1,3-Dichloropropene			<0.030		ug/g		0.03	11-MAY-21
Trichloroethylene			<0.010		ug/g		0.01	11-MAY-21
Trichlorofluoromethane			<0.050		ug/g		0.05	11-MAY-21
Vinyl chloride			<0.020		ug/g		0.02	11-MAY-21
Surrogate: 1,4-Difluorobenzene			122.5		%		50-140	11-MAY-21
Surrogate: 4-Bromofluorobenzene			134.7		%		50-140	11-MAY-21

Quality Control Report

Workorder: L2583177 Report Date: 12-MAY-21

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Legend:

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

Sample Parameter Qualifier Definitions:

Qualifier	Description
J	Duplicate results and limits are expressed in terms of absolute difference.
RPD-NA	Relative Percent Difference Not Available due to result(s) being less than detection limit.

Hold Time Exceedances:

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

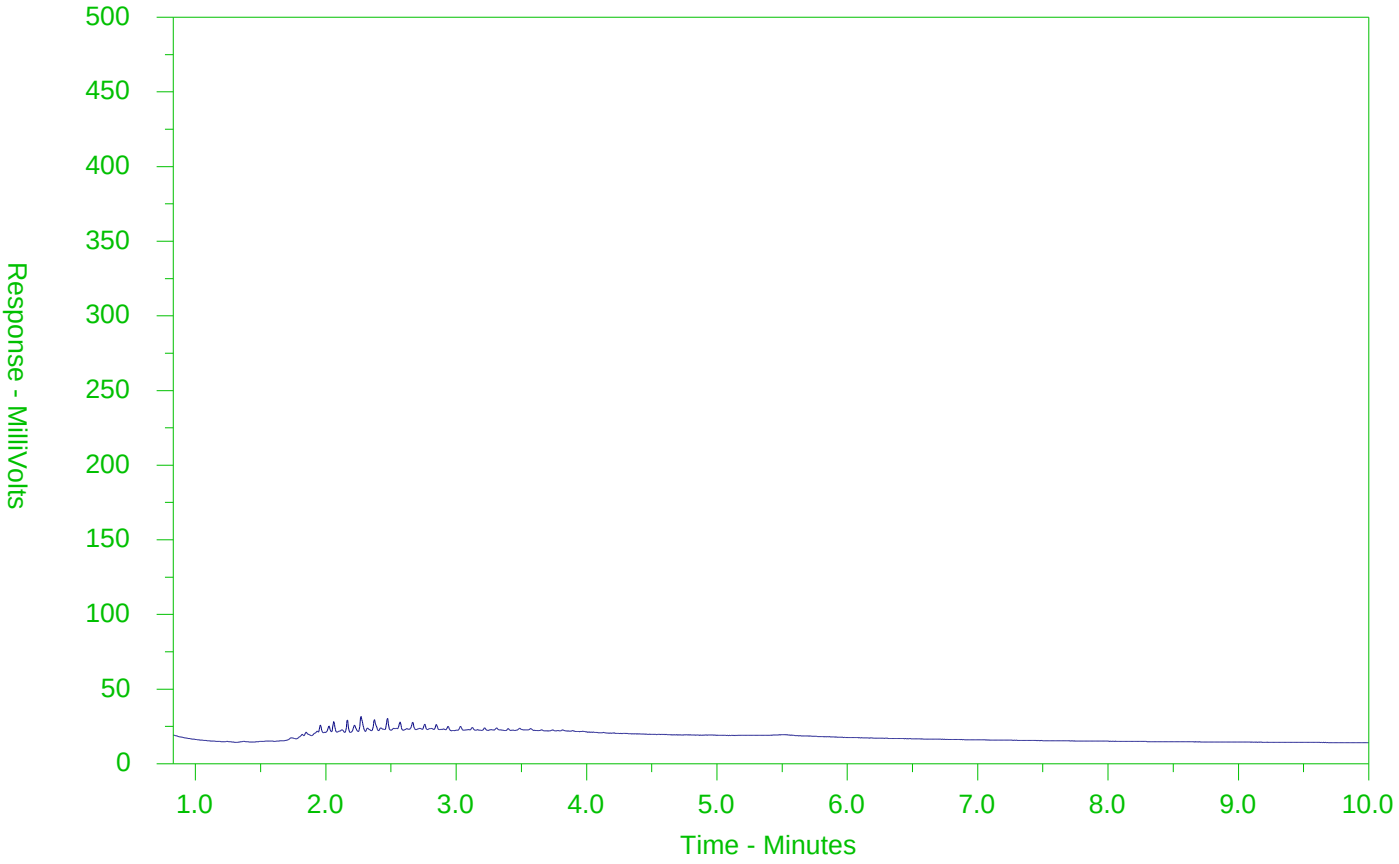
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2583177-4
Client Sample ID: BH 101 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.

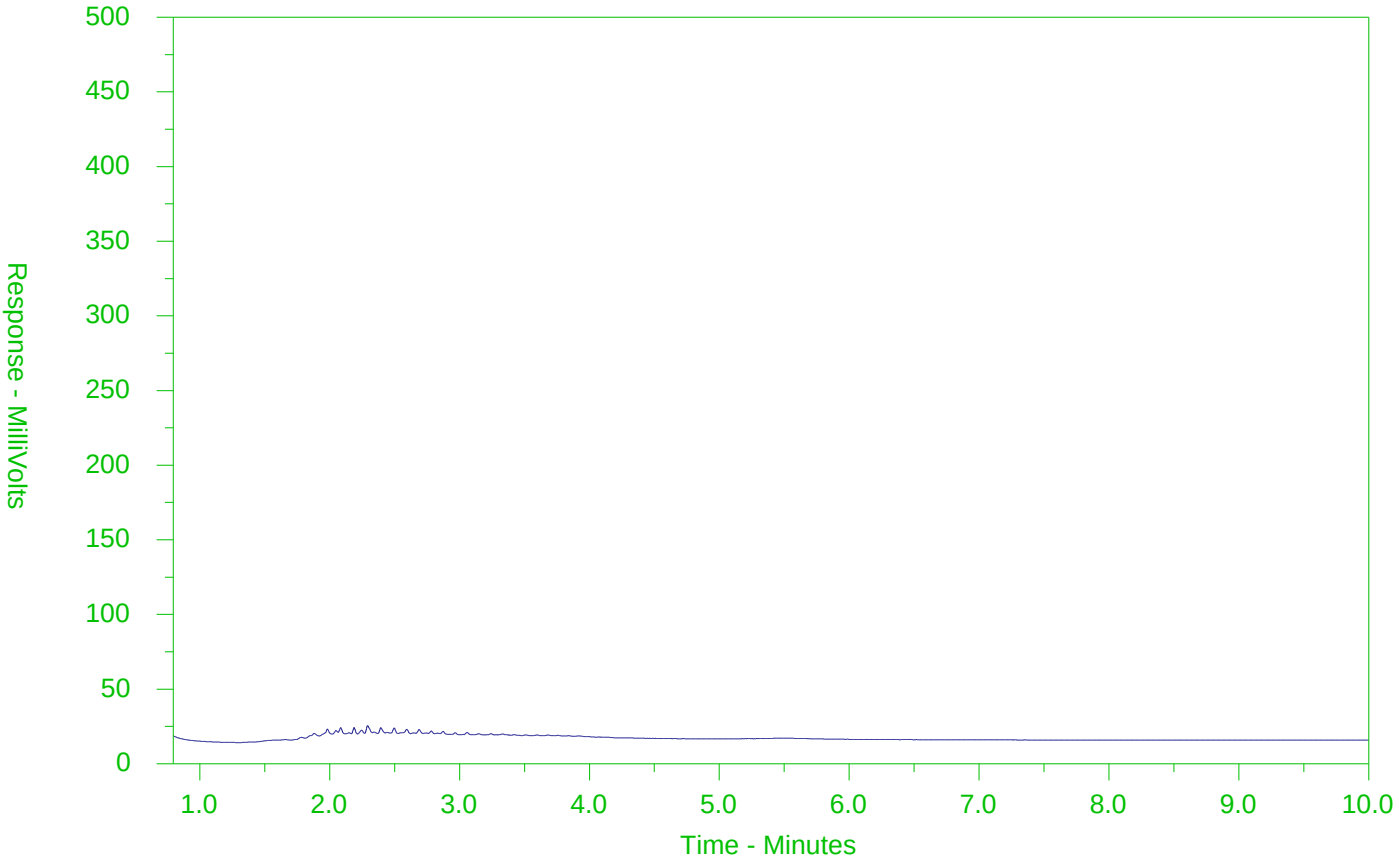
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2583177-8
Client Sample ID: BH 102 SS6B



←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.

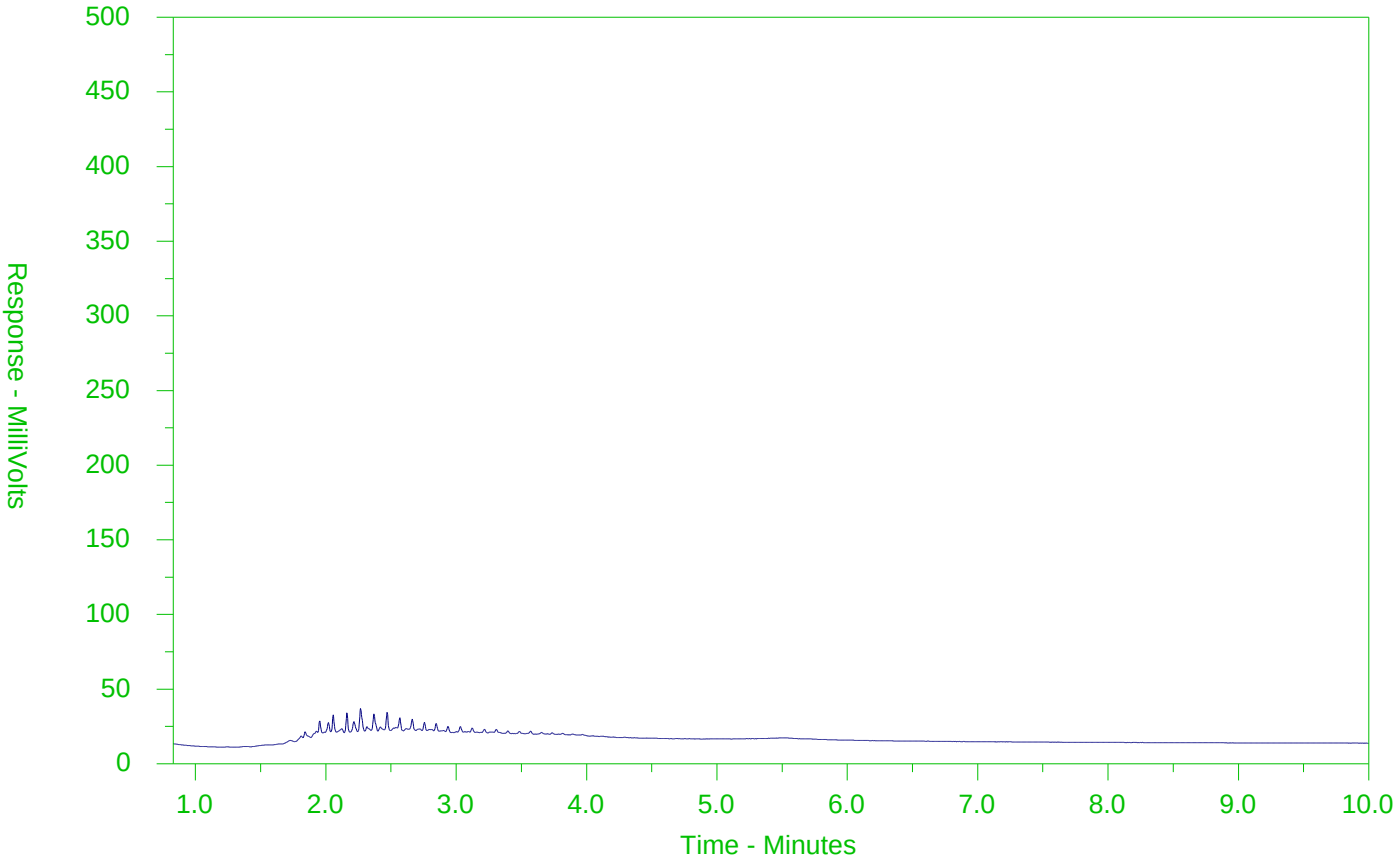
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2583177-12
Client Sample ID: BH 103 SS3B



←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.

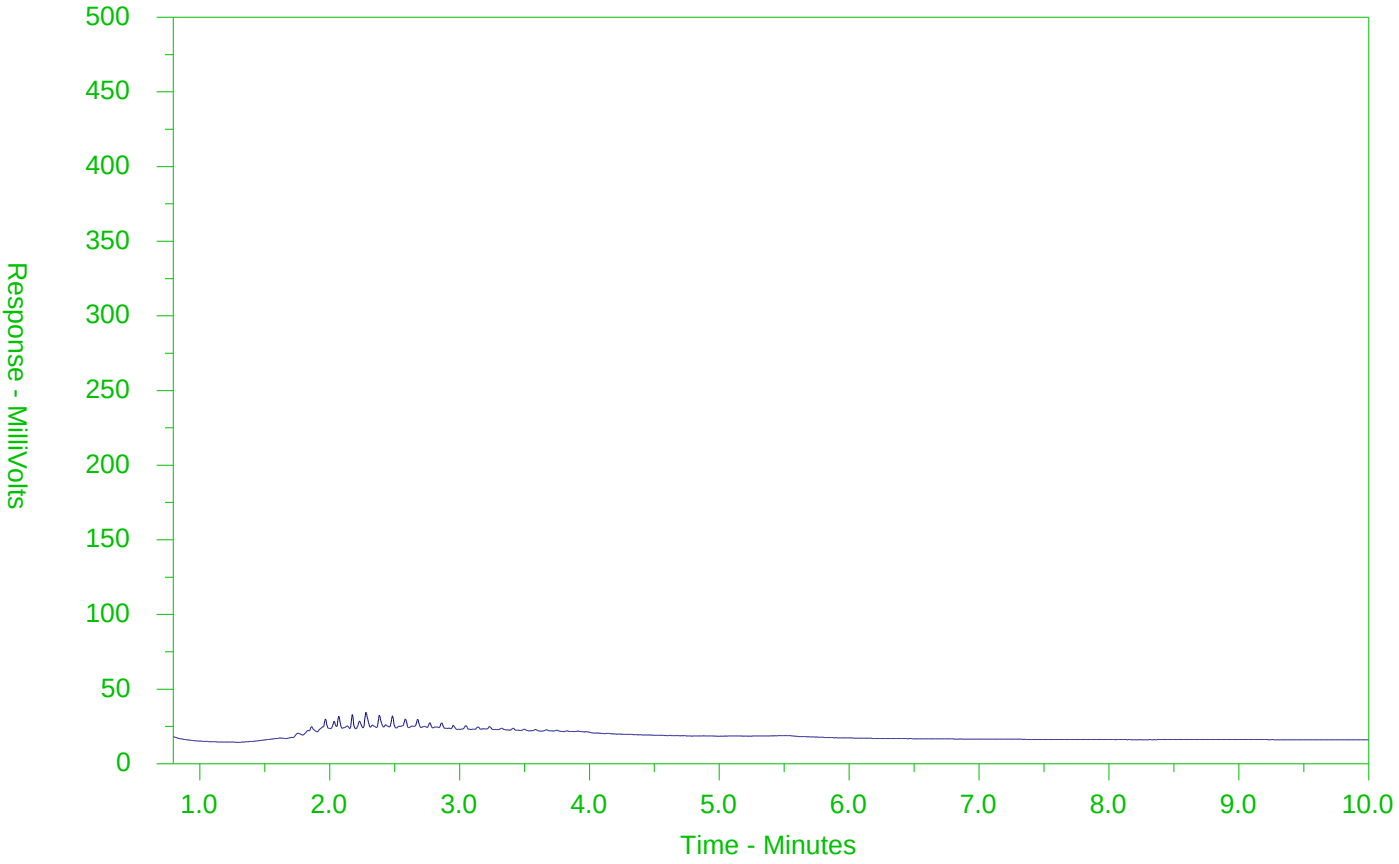
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2583177-16
Client Sample ID: DUP 3



←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.

in of Custody (COC) / Analytical Request Form

L2583177-COFC

Canada Toll Free: 1 800 668 9878

COC Number: 20 - 888180

Page 2 of 2

Report To		Reports / Recipients	Turnaround Time (TAT) Requested
Company:	Grounded Eng	Select Report Format: ☑ PDF ☐ EXCEL ☐ EDD (DIGITAL)	☑ Routine [R] if received by 3pm M-F - no surcharges apply
Contact:	Zenith Wong	Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A	☐ 4 day [P4] if received by 3pm M-F - 20% rush surcharge minimum
Phone:	647 269 7943	☑ Compare Results to Criteria on Report - provide details below if box checked	☐ 3 day [P3] if received by 3pm M-F - 25% rush surcharge minimum
	Company address below will appear on the final report	Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	☐ 2 day [P2] if received by 3pm M-F - 50% rush surcharge minimum
Street:	12 Banigan Drive Toronto	Email 1 or Fax z wong@groundedeng	☐ 1 day [E] if received by 3pm M-F - 100% rush surcharge minimum
City/Province:	NO	Email 2	☐ Same day [E2] if received by 10am M-S - 200% rush surcharge. Additional fees may apply to rush requests on weekends, statutory holidays and non-routine tests
Postal Code:	M4H 1E9	Email 3	**Date and Time Required for all E&P TATs:**
Invoice To	Same as Report To ☑ YES ☐ NO	**Invoice Recipients**	For all tests with rush TATs requested, please contact your AM to confirm availability.
	Copy of Invoice with Report ☐ YES ☐ NO	Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX	
Company:		Email 1 or Fax	
Contact:		Email 2	

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information		Oil and Gas Required Fields (client use)	
ALS Account # / Quote #:		AFE/Cost Center:	PO#
Job #:	21-067	Major/Minor Code:	Routing Code:
PO / AFE:		Requisitioner:	
LSD:		Location:	
ALS Lab Work Order # (ALS use only):	L2583177	**ALS Contact:**	**Sampler:**

Analysis Request

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	Indicate Filtered (F), Preserved (P) or Filtered and Preserved (F/P) below: M+I	PAH	PCB	PHC-BTEX	VOC	TCLP	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 103 SS5	3 May		Soil	3					X				
	dup 1				1	X								
	dup 2				1			X						
	dup 3				3				X					
	dup 4				3					X				
	dup 5				1		X							
	~~BH~~ TCLP				1						X			

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☐ NO	iqbl & ICCCT
Are samples for human consumption/ use? ☐ YES ☐ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				8.3			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date: 3 May	Time: 12:35	Received by:	Date:	Time:	Received by:	Date: 05/04/21	Time: 1100

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

L2583177-COFC

ustody (COC) / Analytical Request Form

Canada Toll Free: 1 800 668 9878

COC Number: 20 - 888179 AV

Page 1 of 2

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	Groundes eng
Contact:	Zmith Wong
Phone:	647 764 7943
	Company address below will appear on the final report
Street:	12 Banigan Drive, Toronto,
City/Province:	ON
Postal Code:	M4H 1E9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

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

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: ZWong@groundeseng.ca

Email 2:

Email 3:

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

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

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

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

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

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

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

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:

Job #: 21-067

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: PO#:

Major/Minor Code: Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only): L2583177

ALS Contact: Sampler:

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	MeHg	PAH	OCs	BHC+DTCA	VOCs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 101 SS1	3 May		Soil	1		X						
	BH 101 SS2				1	X							
	BH 101 SS3B				1			X					
	BH 101 SS4				3				X				
	BH 101 SS7				3					X			
	BH 102 SS3				1	X							
	BH 102 SS5				1		X						
	BH 102 SS6B				4			X	X				
	BH 102 SS7				3					X			
	BH 103 SS1				1	X							
	BH 103 SS2				1		X						
	BH 103 SS3D				3				X				

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

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

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

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

Table 8 ICC CT

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
				8.3			

SHIPMENT RELEASE (client use)

Released by: M. Dc Date: 3 May Time: 4:00

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: Time:

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: Date: 05/04/21 Time: 1100

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

Grounded Engineering Inc
ATTN: ZENITH WONG
12 Banigan Drive
TORONTO ON M4H 1E9

Date Received: 07-MAY-21
Report Date: 17-MAY-21 10:27 (MT)
Version: FINAL REV. 2

Client Phone: 647-264-7932

Certificate of Analysis

Lab Work Order #: L2585341

Project P.O. #: NOT SUBMITTED
Job Reference: 21-067
C of C Numbers:
Legal Site Desc:

Jennifer Barkshire-Paterson
Account Manager

Summary of Guideline Exceedances

ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Guideline						
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Ground Water - All Types of Property Use						
L2585341-2	BH 102	Anions and Nutrients	Chloride (Cl)	1690	790	mg/L
		Dissolved Metals	Sodium (Na)-Dissolved	882000	490000	ug/L
L2585341-3	BH 103	Polycyclic Aromatic Hydrocarbons	Benzo(a)pyrene	0.016	0.01	ug/L
L2585341-4	DUP 1	Anions and Nutrients	Chloride (Cl)	1440	790	mg/L
		Dissolved Metals	Sodium (Na)-Dissolved	950000	490000	ug/L

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

ANALYTICAL REPORT

Physical Tests - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID: L2585341-1 / Sample Date: 07-MAY-21 / Sample ID: BH 101	Lab ID: L2585341-2 / Sample Date: 07-MAY-21 / Sample ID: BH 102	Lab ID: L2585341-3 / Sample Date: 07-MAY-21 / Sample ID: BH 103	Lab ID: L2585341-4 / Sample Date: 07-MAY-21 / Sample ID: DUP 1
Conductivity	mS/cm	-	-	1.50	4.85	1.30	4.95
pH	pH units	-	-	8.19	7.57	8.17	7.61

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

Anions and Nutrients - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID
				L2585341-1	07-MAY-21	BH 101
				L2585341-2	07-MAY-21	BH 102
				L2585341-3	07-MAY-21	BH 103
				L2585341-4	07-MAY-21	DUP 1
Chloride (Cl)	mg/L	790	-	284 DLHC	1690 DLHC	266 DLHC	1440 DLHC

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

ANALYTICAL REPORT

Cyanides - WATER

			Lab ID	L2585341-1	L2585341-2	L2585341-3	L2585341-4
			Sample Date	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21
			Sample ID	BH 101	BH 102	BH 103	DUP 1
		Guide Limits					
Analyte	Unit	#1	#2				
Cyanide, Weak Acid Diss	ug/L	52	-	3.3	2.6	<2.0	<2.0

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

ANALYTICAL REPORT

Dissolved Metals - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID / Sample Date / Sample ID: L2585341-1 07-MAY-21 BH 101	L2585341-2 07-MAY-21 BH 102	L2585341-3 07-MAY-21 BH 103	L2585341-4 07-MAY-21 DUP 1
Dissolved Mercury Filtration Location		-	-	FIELD	FIELD	LAB	FIELD
Dissolved Metals Filtration Location		-	-	FIELD	FIELD	LAB	FIELD
Antimony (Sb)-Dissolved	ug/L	6	-	1.8 DLHC	<1.0 DLHC	1.8 DLHC	<1.0 DLHC
Arsenic (As)-Dissolved	ug/L	25	-	2.6 DLHC	1.0 DLHC	2.5 DLHC	<1.0 DLHC
Barium (Ba)-Dissolved	ug/L	1000	-	62.8 DLHC	155 DLHC	45.7 DLHC	171 DLHC
Beryllium (Be)-Dissolved	ug/L	4	-	<1.0 DLHC	<1.0 DLHC	<1.0 DLHC	<1.0 DLHC
Boron (B)-Dissolved	ug/L	5000	-	1530 DLHC	1080 DLHC	790 DLHC	1040 DLHC
Cadmium (Cd)-Dissolved	ug/L	2.1	-	<0.050 DLHC	<0.050 DLHC	<0.050 DLHC	<0.050 DLHC
Chromium (Cr)-Dissolved	ug/L	50	-	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC
Cobalt (Co)-Dissolved	ug/L	3.8	-	<1.0 DLHC	<1.0 DLHC	<1.0 DLHC	<1.0 DLHC
Copper (Cu)-Dissolved	ug/L	69	-	<2.0 DLHC	<2.0 DLHC	<2.0 DLHC	<2.0 DLHC
Lead (Pb)-Dissolved	ug/L	10	-	<0.50 DLHC	<0.50 DLHC	<0.50 DLHC	<0.50 DLHC
Mercury (Hg)-Dissolved	ug/L	0.29	-	<0.0050	<0.0050	<0.0050	<0.0050
Molybdenum (Mo)-Dissolved	ug/L	70	-	14.7 DLHC	6.91 DLHC	20.1 DLHC	6.95 DLHC
Nickel (Ni)-Dissolved	ug/L	100	-	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC
Selenium (Se)-Dissolved	ug/L	10	-	0.66 DLHC	<0.50 DLHC	<0.50 DLHC	<0.50 DLHC
Silver (Ag)-Dissolved	ug/L	1.2	-	<0.50 DLHC	<0.50 DLHC	<0.50 DLHC	<0.50 DLHC
Sodium (Na)-Dissolved	ug/L	490000	-	251000 DLHC	882000 DLHC	169000 DLHC	950000 DLHC
Thallium (Tl)-Dissolved	ug/L	2	-	<0.10 DLHC	<0.10 DLHC	<0.10 DLHC	<0.10 DLHC
Uranium (U)-Dissolved	ug/L	20	-	2.97 DLHC	0.27 DLHC	1.70 DLHC	0.30 DLHC
Vanadium (V)-Dissolved	ug/L	6.2	-	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC	<5.0 DLHC
Zinc (Zn)-Dissolved	ug/L	890	-	<10 DLHC	<10 DLHC	<10 DLHC	<10 DLHC

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

ANALYTICAL REPORT

Speciated Metals - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID
				L2585341-1	07-MAY-21	BH 101
				L2585341-2	07-MAY-21	BH 102
				L2585341-3	07-MAY-21	BH 103
				L2585341-4	07-MAY-21	DUP 1
Chromium, Hexavalent	ug/L	25	-	<0.50	<0.50	<0.50	<0.50

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

Volatile Organic Compounds - WATER

				Lab ID	L2585341-1	L2585341-2	L2585341-3	L2585341-4	L2585341-5
				Sample Date	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21
				Sample ID	BH 101	BH 102	BH 103	DUP 1	TRIP BLANK
		Guide Limits							
Analyte	Unit	#1	#2						
Acetone	ug/L	2700	-	<30 OWP	<30 OWP	<30 OWP	<30 OWP	<30
Benzene	ug/L	5	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Bromodichloromethane	ug/L	16	-	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0
Bromoform	ug/L	25	-	<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0
Bromomethane	ug/L	0.89	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Carbon tetrachloride	ug/L	0.79	-	<0.20 OWP	<0.20 OWP	<0.20 OWP	<0.20 OWP	<0.20
Chlorobenzene	ug/L	30	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Dibromochloromethane	ug/L	25	-	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0
Chloroform	ug/L	2.4	-	<1.0 OWP	<1.0 OWP	<1.0 OWP	<1.0 OWP	<1.0
1,2-Dibromoethane	ug/L	0.2	-	<0.20 OWP	<0.20 OWP	<0.20 OWP	<0.20 OWP	<0.20
1,2-Dichlorobenzene	ug/L	3	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,3-Dichlorobenzene	ug/L	59	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,4-Dichlorobenzene	ug/L	1	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Dichlorodifluoromethane	ug/L	590	-	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0
1,1-Dichloroethane	ug/L	5	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,2-Dichloroethane	ug/L	1.6	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,1-Dichloroethylene	ug/L	1.6	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
cis-1,2-Dichloroethylene	ug/L	1.6	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
trans-1,2-Dichloroethylene	ug/L	1.6	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Methylene Chloride	ug/L	50	-	<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0
1,2-Dichloropropane	ug/L	5	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
cis-1,3-Dichloropropene	ug/L	-	-	<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30
trans-1,3-Dichloropropene	ug/L	-	-	<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30
1,3-Dichloropropene (cis & trans)	ug/L	0.5	-	<0.50	<0.50	<0.50	<0.50	<0.50
Ethylbenzene	ug/L	2.4	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
n-Hexane	ug/L	51	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Methyl Ethyl Ketone	ug/L	1800	-	<20 OWP	<20 OWP	<20 OWP	<20 OWP	<20
Methyl Isobutyl Ketone	ug/L	640	-	<20 OWP	<20 OWP	<20 OWP	<20 OWP	<20
MTBE	ug/L	15	-	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0 OWP	<2.0
Styrene	ug/L	5.4	-	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

ANALYTICAL REPORT

Volatile Organic Compounds - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	L2585341-1	L2585341-2	L2585341-3	L2585341-4	L2585341-5
				Sample Date	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21
				Sample ID	BH 101	BH 102	BH 103	DUP 1	TRIP BLANK
1,1,1,2-Tetrachloroethane	ug/L	1.1	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,1,2,2-Tetrachloroethane	ug/L	1	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Tetrachloroethylene	ug/L	1.6	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Toluene	ug/L	22	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,1,1-Trichloroethane	ug/L	200	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
1,1,2-Trichloroethane	ug/L	4.7	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Trichloroethylene	ug/L	1.6	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
Trichlorofluoromethane	ug/L	150	-		<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0 OWP	<5.0
Vinyl chloride	ug/L	0.5	-		<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50 OWP	<0.50
o-Xylene	ug/L	-	-		<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30 OWP	<0.30
m+p-Xylenes	ug/L	-	-		<0.40 OWP	<0.40 OWP	<0.40 OWP	<0.40 OWP	<0.40
Xylenes (Total)	ug/L	300	-		<0.50	<0.50	<0.50	<0.50	<0.50
Surrogate: 4-Bromofluorobenzene	%	-	-		112.4	115.2	116.8	119.2	115.0
Surrogate: 1,4-Difluorobenzene	%	-	-		101.8	102.2	100.7	101.0	101.3

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

Hydrocarbons - WATER

				Lab ID	L2585341-1	L2585341-2	L2585341-3	L2585341-4
				Sample Date	07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21
				Sample ID	BH 101	BH 102	BH 103	DUP 1
		Guide Limits						
Analyte	Unit	#1	#2					
F1 (C6-C10)	ug/L	420	-	<25 OWP	<25 OWP	<25 OWP	<25 OWP
F1-BTEX	ug/L	420	-	<25	<25	<25	<25
F2 (C10-C16)	ug/L	150	-	<100 OWP	<100	<100 OWP	<100
F2-Naphth	ug/L	-	-	<100	<100	<100	<100
F3 (C16-C34)	ug/L	500	-	<250 OWP	<250	<250 OWP	<250
F3-PAH	ug/L	-	-	<250	<250	<250	<250
F4 (C34-C50)	ug/L	500	-	<250 OWP	<250	<250 OWP	<250
Total Hydrocarbons (C6-C50)	ug/L	-	-	<370	<370	<370	<370
Chrom. to baseline at nC50		-	-	YES	YES	YES	YES
Surrogate: 2-Bromobenzotrifluoride	%	-	-	87.1	89.7	92.6	94.7
Surrogate: 3,4-Dichlorotoluene	%	-	-	86.8	92.9	106.9	100.8

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - WATER

		Guide Limits					
Lab ID				L2585341-1	L2585341-2	L2585341-3	L2585341-4
Sample Date				07-MAY-21	07-MAY-21	07-MAY-21	07-MAY-21
Sample ID				BH 101	BH 102	BH 103	DUP 1
Analyte	**Unit**	**#1**	**#2**				
Acenaphthene	ug/L	4.1	-	<0.020	<0.020	<0.020	<0.020
Acenaphthylene	ug/L	1	-	<0.020	<0.020	<0.020	<0.020
Anthracene	ug/L	1	-	<0.020	<0.020	<0.020	<0.020
Benzo(a)anthracene	ug/L	1	-	<0.020	<0.020	<0.020	<0.020
Benzo(a)pyrene	ug/L	0.01	-	0.010	<0.010	0.016	<0.010
Benzo(b&j)fluoranthene	ug/L	0.1	-	<0.020	<0.020	0.030	<0.020
Benzo(g,h,i)perylene	ug/L	0.2	-	<0.020	<0.020	<0.020	<0.020
Benzo(k)fluoranthene	ug/L	0.1	-	<0.020	<0.020	<0.020	<0.020
Chrysene	ug/L	0.1	-	<0.020	<0.020	0.028	<0.020
Dibenz(a,h)anthracene	ug/L	0.2	-	<0.020	<0.020	<0.020	<0.020
Fluoranthene	ug/L	0.41	-	0.027	<0.020	0.051	<0.020
Fluorene	ug/L	120	-	<0.020	<0.020	0.022	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	-	<0.020	<0.020	<0.020	<0.020
1+2-Methylnaphthalenes	ug/L	3.2	-	<0.028	<0.028	0.066	<0.028
1-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020	0.029	<0.020
2-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020	0.037	<0.020
Naphthalene	ug/L	11	-	<0.050	<0.050	<0.050	<0.050
Phenanthrene	ug/L	1	-	0.024	<0.020	0.083	<0.020
Pyrene	ug/L	4.1	-	<0.020	<0.020	0.053	<0.020
Surrogate: Naphthalene d8	%	-	-	91.5	89.2	98.1	95.1
Surrogate: Phenanthrene d10	%	-	-	94.3	93.6	101.3	98.8

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

ANALYTICAL REPORT

Polychlorinated Biphenyls - WATER

Analyte	Unit	Guide Limits #1	Guide Limits #2	Lab ID	Sample Date	Sample ID
				L2585341-1	07-MAY-21	BH 101
				L2585341-2	07-MAY-21	BH 102
				L2585341-4	07-MAY-21	DUP 1
Aroclor 1242	ug/L	-	-	<0.020	<0.020	<0.020
Aroclor 1248	ug/L	-	-	<0.020	<0.020	<0.020
Aroclor 1254	ug/L	-	-	<0.020	<0.020	<0.020
Aroclor 1260	ug/L	-	-	<0.040 RRR	<0.020	<0.020
Surrogate: Decachlorobiphenyl	%	-	-	47.0 RRR	70.6	67.5
Total PCBs	ug/L	0.2	-	<0.053 RRR	<0.040	<0.040
Surrogate: Tetrachloro-m-xylene	%	-	-	86.6	92.7	89.3

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

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

Reference Information

Additional Comments for Sample Listed:

Samplenum	Matrix	Report Remarks	Sample Comments
L2585341-1	Water	Note: RRR: Surrogate recovery is outside ALS DQO limits. Detection limits for affected compounds have been raised accordingly.	

Qualifiers for Individual Parameters Listed:

Qualifier	Description
OWP	Organic water sample contained visible sediment (must be included as part of analysis). Measured concentrations of organic substances in water can be biased high due to presence of

Reference Information

sediment.

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

RRR Refer to Report Remarks for issues regarding this analysis

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
CL-IC-N-WT	Water	Chloride by IC	EPA 300.1 (mod)

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

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

CN-WAD-R511-WT	Water	Cyanide (WAD)-O.Reg 153/04	APHA 4500CN I-Weak acid Dist Colorimet

Weak acid dissociable cyanide (WAD) is determined by undergoing a distillation procedure. Cyanide is converted to cyanogen chloride by reacting with chloramine-T, the cyanogen chloride then reacts with a combination of barbituric acid and isonicotinic acid to form a highly colored complex.

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

CR-CR6-IC-R511-WT	Water	Hex Chrom-O.Reg 153/04 (July 2011)	EPA 7199

This analysis is carried out using procedures adapted from "Test Methods for Evaluating Solid Waste" SW-846, Method 7199, published by the United States Environmental Protection Agency (EPA). The procedure involves analysis for chromium (VI) by ion chromatography using diphenylcarbazide in a sulphuric acid solution. Chromium (III) is calculated as the difference between the total chromium and the chromium (VI) results.

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

EC-R511-WT	Water	Conductivity-O.Reg 153/04 (July 2011)	APHA 2510 B

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

EC-SCREEN-WT	Water	Conductivity Screen (Internal Use Only)	APHA 2510

Qualitative analysis of conductivity where required during preparation of other tests - e.g. TDS, metals, etc.

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.

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**

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).

HG-D-UG/L-CVAA-WT	Water	Diss. Mercury in Water by CVAAS (ug/L)	EPA 1631E (mod)

Water samples are filtered (0.45 um), preserved with hydrochloric acid, then undergo a cold-oxidation using bromine monochloride prior to reduction with stannous chloride, and analyzed by CVAAS.

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

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) 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).

PCB-511-WT	Water	PCB-O. Reg 153/04 (July 2011)	SW846 3510/8082

Aqueous samples are extracted, then concentrated, reconstituted, and analyzed by 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).

PH-WT	Water	pH	APHA 4500 H-Electrode

Water samples are analyzed directly by a calibrated pH meter.

Analysis conducted in accordance with the Protocol for Analytical Methods Used in the Assessment of Properties under Part XV.1 of the Environmental Protection Act (July 1, 2011). Holdtime for samples under this regulation is 28 days

Reference Information

Methods Listed (if applicable):

ALS Test Code	Matrix	Test Description	Method Reference**
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:

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: L2585341 Report Date: 17-MAY-21

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
CL-IC-N-WT	**Water**							
Batch R5457074								
WG3533741-9 DUP		**WG3533741-8**						
Chloride (Cl)		24.6	24.7		mg/L	0.5	20	12-MAY-21
WG3533741-7 LCS								
Chloride (Cl)			100.6		%		90-110	12-MAY-21
WG3533741-6 MB								
Chloride (Cl)			<0.50		mg/L		0.5	12-MAY-21
WG3533741-10 MS		**WG3533741-8**						
Chloride (Cl)			103.1		%		75-125	12-MAY-21
CN-WAD-R511-WT	**Water**							
Batch R5455154								
WG3531791-15 DUP		**WG3531791-13**						
Cyanide, Weak Acid Diss		<2.0	<2.0	RPD-NA	ug/L	N/A	20	10-MAY-21
WG3531791-12 LCS								
Cyanide, Weak Acid Diss			92.8		%		80-120	10-MAY-21
WG3531791-11 MB								
Cyanide, Weak Acid Diss			<2.0		ug/L		2	10-MAY-21
WG3531791-14 MS		**WG3531791-13**						
Cyanide, Weak Acid Diss			95.6		%		75-125	10-MAY-21
CR-CR6-IC-R511-WT	**Water**							
Batch R5456215								
WG3532712-4 DUP		**WG3532712-3**						
Chromium, Hexavalent		<0.50	<0.50	RPD-NA	ug/L	N/A	20	11-MAY-21
WG3532712-2 LCS								
Chromium, Hexavalent			101.3		%		80-120	11-MAY-21
WG3532712-1 MB								
Chromium, Hexavalent			<0.50		ug/L		0.5	11-MAY-21
WG3532712-5 MS		**WG3532712-3**						
Chromium, Hexavalent			98.8		%		70-130	11-MAY-21
EC-R511-WT	**Water**							
Batch R5457022								
WG3532414-4 DUP		**WG3532414-3**						
Conductivity		5.43	5.38		mS/cm	0.9	10	11-MAY-21
WG3532414-2 LCS								
Conductivity			102.9		%		90-110	11-MAY-21
WG3532414-1 MB								
Conductivity			<0.0030		mS/cm		0.003	11-MAY-21
F1-HS-511-WT	**Water**							

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
F1-HS-511-WT	**Water**							
Batch R5457674								
WG3534801-4 DUP		**WG3534801-3**						
F1 (C6-C10)		<25	<25	RPD-NA	ug/L	N/A	30	17-MAY-21
WG3534801-1 LCS								
F1 (C6-C10)			87.5		%		80-120	14-MAY-21
WG3534801-2 MB								
F1 (C6-C10)			<25		ug/L		25	14-MAY-21
Surrogate: 3,4-Dichlorotoluene			98.7		%		60-140	14-MAY-21
WG3534801-5 MS		**WG3534801-3**						
F1 (C6-C10)			98.9		%		60-140	17-MAY-21
F2-F4-511-WT	**Water**							
Batch R5456436								
WG3532299-2 LCS								
F2 (C10-C16)			96.8		%		70-130	12-MAY-21
F3 (C16-C34)			97.7		%		70-130	12-MAY-21
F4 (C34-C50)			99.4		%		70-130	12-MAY-21
WG3532299-1 MB								
F2 (C10-C16)			<100		ug/L		100	12-MAY-21
F3 (C16-C34)			<250		ug/L		250	12-MAY-21
F4 (C34-C50)			<250		ug/L		250	12-MAY-21
Surrogate: 2-Bromobenzotrifluoride			89.8		%		60-140	12-MAY-21
HG-D-UG/L-CVAA-WT	**Water**							
Batch R5455760								
WG3532149-4 DUP		**WG3532149-3**						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	11-MAY-21
WG3532149-2 LCS								
Mercury (Hg)-Dissolved			98.3		%		80-120	11-MAY-21
WG3532149-1 MB								
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	11-MAY-21
WG3532149-6 MS		**WG3532149-5**						
Mercury (Hg)-Dissolved			94.4		%		70-130	11-MAY-21
Batch R5456415								
WG3533161-4 DUP		**WG3533161-3**						
Mercury (Hg)-Dissolved		<0.0050	<0.0050	RPD-NA	ug/L	N/A	20	12-MAY-21
WG3533161-2 LCS								
Mercury (Hg)-Dissolved			103.0		%		80-120	12-MAY-21
WG3533161-1 MB								
Mercury (Hg)-Dissolved			<0.0050		ug/L		0.005	12-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
HG-D-UG/L-CVAA-WT	**Water**							
Batch R5456415								
WG3533161-6 MS		**WG3533161-5**						
Mercury (Hg)-Dissolved			101.4		%		70-130	12-MAY-21
MET-D-UG/L-MS-WT	**Water**							
Batch R5456049								
WG3531947-4 DUP		**WG3531947-3**						
Antimony (Sb)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Arsenic (As)-Dissolved		5.02	4.96		ug/L	1.2	20	11-MAY-21
Barium (Ba)-Dissolved		165	166		ug/L	0.7	20	11-MAY-21
Beryllium (Be)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Boron (B)-Dissolved		76	76		ug/L	0.0	20	11-MAY-21
Cadmium (Cd)-Dissolved		0.0065	0.0051	J	ug/L	0.0014	0.01	11-MAY-21
Chromium (Cr)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	11-MAY-21
Cobalt (Co)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	11-MAY-21
Copper (Cu)-Dissolved		<0.20	<0.20	RPD-NA	ug/L	N/A	20	11-MAY-21
Lead (Pb)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Molybdenum (Mo)-Dissolved		4.46	4.62		ug/L	3.5	20	11-MAY-21
Nickel (Ni)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	11-MAY-21
Selenium (Se)-Dissolved		0.062	0.056		ug/L	9.6	20	11-MAY-21
Silver (Ag)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	11-MAY-21
Sodium (Na)-Dissolved		22600	22300		ug/L	1.7	20	11-MAY-21
Thallium (Tl)-Dissolved		<0.010	<0.010	RPD-NA	ug/L	N/A	20	11-MAY-21
Uranium (U)-Dissolved		2.36	2.40		ug/L	1.5	20	11-MAY-21
Vanadium (V)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	11-MAY-21
Zinc (Zn)-Dissolved		<1.0	<1.0	RPD-NA	ug/L	N/A	20	11-MAY-21
WG3531947-2 LCS								
Antimony (Sb)-Dissolved			100.8		%		80-120	11-MAY-21
Arsenic (As)-Dissolved			101.2		%		80-120	11-MAY-21
Barium (Ba)-Dissolved			100.6		%		80-120	11-MAY-21
Beryllium (Be)-Dissolved			93.3		%		80-120	11-MAY-21
Boron (B)-Dissolved			89.3		%		80-120	11-MAY-21
Cadmium (Cd)-Dissolved			100.3		%		80-120	11-MAY-21
Chromium (Cr)-Dissolved			97.9		%		80-120	11-MAY-21
Cobalt (Co)-Dissolved			98.6		%		80-120	11-MAY-21
Copper (Cu)-Dissolved			98.0				80-120	

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5456049								
WG3531947-2 LCS								
Copper (Cu)-Dissolved			98.0		%		80-120	11-MAY-21
Lead (Pb)-Dissolved			103.1		%		80-120	11-MAY-21
Molybdenum (Mo)-Dissolved			99.1		%		80-120	11-MAY-21
Nickel (Ni)-Dissolved			98.1		%		80-120	11-MAY-21
Selenium (Se)-Dissolved			96.8		%		80-120	11-MAY-21
Silver (Ag)-Dissolved			103.3		%		80-120	11-MAY-21
Sodium (Na)-Dissolved			96.1		%		80-120	11-MAY-21
Thallium (Tl)-Dissolved			102.5		%		80-120	11-MAY-21
Uranium (U)-Dissolved			105.8		%		80-120	11-MAY-21
Vanadium (V)-Dissolved			99.0		%		80-120	11-MAY-21
Zinc (Zn)-Dissolved			103.4		%		80-120	11-MAY-21
WG3531947-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Boron (B)-Dissolved			<10		ug/L		10	11-MAY-21
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	11-MAY-21
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	11-MAY-21
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	11-MAY-21
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	11-MAY-21
Sodium (Na)-Dissolved			<50		ug/L		50	11-MAY-21
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Uranium (U)-Dissolved			<0.010		ug/L		0.01	11-MAY-21
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	11-MAY-21
Zinc (Zn)-Dissolved			<1.0		ug/L		1	11-MAY-21
WG3531947-5 MS		**WG3531947-3**						
Antimony (Sb)-Dissolved			103.9		%		70-130	11-MAY-21
Arsenic (As)-Dissolved			102.7		%		70-130	11-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5456049								
WG3531947-5 MS		**WG3531947-3**						
Barium (Ba)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Beryllium (Be)-Dissolved			95.6		%		70-130	11-MAY-21
Boron (B)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Cadmium (Cd)-Dissolved			99.9		%		70-130	11-MAY-21
Chromium (Cr)-Dissolved			101.0		%		70-130	11-MAY-21
Cobalt (Co)-Dissolved			100.1		%		70-130	11-MAY-21
Copper (Cu)-Dissolved			95.4		%		70-130	11-MAY-21
Lead (Pb)-Dissolved			102.2		%		70-130	11-MAY-21
Molybdenum (Mo)-Dissolved			105.1		%		70-130	11-MAY-21
Nickel (Ni)-Dissolved			97.2		%		70-130	11-MAY-21
Selenium (Se)-Dissolved			95.7		%		70-130	11-MAY-21
Silver (Ag)-Dissolved			101.2		%		70-130	11-MAY-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Thallium (Tl)-Dissolved			102.9		%		70-130	11-MAY-21
Uranium (U)-Dissolved			N/A	MS-B	%		-	11-MAY-21
Vanadium (V)-Dissolved			104.7		%		70-130	11-MAY-21
Zinc (Zn)-Dissolved			97.3		%		70-130	11-MAY-21
Batch R5456399								
WG3532233-4 DUP		**WG3532233-3**						
Antimony (Sb)-Dissolved		0.29	0.27		ug/L	5.6	20	12-MAY-21
Arsenic (As)-Dissolved		0.59	0.57		ug/L	2.0	20	12-MAY-21
Barium (Ba)-Dissolved		177	180		ug/L	1.3	20	12-MAY-21
Beryllium (Be)-Dissolved		<0.10	<0.10	RPD-NA	ug/L	N/A	20	12-MAY-21
Boron (B)-Dissolved		94	95		ug/L	1.5	20	12-MAY-21
Cadmium (Cd)-Dissolved		0.0320	0.0330		ug/L	3.1	20	12-MAY-21
Chromium (Cr)-Dissolved		<0.50	<0.50	RPD-NA	ug/L	N/A	20	12-MAY-21
Cobalt (Co)-Dissolved		0.81	0.83		ug/L	2.4	20	12-MAY-21
Copper (Cu)-Dissolved		1.73	1.71		ug/L	1.3	20	12-MAY-21
Lead (Pb)-Dissolved		0.221	0.158	J	ug/L	0.063	0.1	12-MAY-21
Molybdenum (Mo)-Dissolved		1.45	1.41		ug/L	2.5	20	12-MAY-21
Nickel (Ni)-Dissolved		1.03	1.02		ug/L	1.1	20	12-MAY-21
Selenium (Se)-Dissolved		1.08	1.09		ug/L	1.3	20	12-MAY-21
Silver (Ag)-Dissolved		<0.050	<0.050	RPD-NA	ug/L	N/A	20	12-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5456399								
WG3532233-4 DUP		**WG3532233-3**						
Sodium (Na)-Dissolved		15500	15500		ug/L	0.3	20	12-MAY-21
Thallium (Tl)-Dissolved		0.022	0.020		ug/L	9.9	20	12-MAY-21
Uranium (U)-Dissolved		0.740	0.736		ug/L	0.7	20	12-MAY-21
Vanadium (V)-Dissolved		0.87	0.84		ug/L	2.8	20	12-MAY-21
Zinc (Zn)-Dissolved		7.2	7.5		ug/L	4.0	20	12-MAY-21
WG3532233-2 LCS								
Antimony (Sb)-Dissolved			100.8		%		80-120	12-MAY-21
Arsenic (As)-Dissolved			104.8		%		80-120	12-MAY-21
Barium (Ba)-Dissolved			102.9		%		80-120	12-MAY-21
Beryllium (Be)-Dissolved			98.5		%		80-120	12-MAY-21
Boron (B)-Dissolved			95.2		%		80-120	12-MAY-21
Cadmium (Cd)-Dissolved			104.9		%		80-120	12-MAY-21
Chromium (Cr)-Dissolved			103.0		%		80-120	12-MAY-21
Cobalt (Co)-Dissolved			103.2		%		80-120	12-MAY-21
Copper (Cu)-Dissolved			104.0		%		80-120	12-MAY-21
Lead (Pb)-Dissolved			105.2		%		80-120	12-MAY-21
Molybdenum (Mo)-Dissolved			99.5		%		80-120	12-MAY-21
Nickel (Ni)-Dissolved			100.9		%		80-120	12-MAY-21
Selenium (Se)-Dissolved			99.2		%		80-120	12-MAY-21
Silver (Ag)-Dissolved			103.3		%		80-120	12-MAY-21
Sodium (Na)-Dissolved			102.6		%		80-120	12-MAY-21
Thallium (Tl)-Dissolved			105.1		%		80-120	12-MAY-21
Uranium (U)-Dissolved			111.0		%		80-120	12-MAY-21
Vanadium (V)-Dissolved			103.8		%		80-120	12-MAY-21
Zinc (Zn)-Dissolved			104.2		%		80-120	12-MAY-21
WG3532233-1 MB								
Antimony (Sb)-Dissolved			<0.10		ug/L		0.1	12-MAY-21
Arsenic (As)-Dissolved			<0.10		ug/L		0.1	12-MAY-21
Barium (Ba)-Dissolved			<0.10		ug/L		0.1	12-MAY-21
Beryllium (Be)-Dissolved			<0.10		ug/L		0.1	12-MAY-21
Boron (B)-Dissolved			<10		ug/L		10	12-MAY-21
Cadmium (Cd)-Dissolved			<0.0050		ug/L		0.005	12-MAY-21
Chromium (Cr)-Dissolved			<0.50		ug/L		0.5	12-MAY-21
Cobalt (Co)-Dissolved			<0.10		ug/L		0.1	12-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
MET-D-UG/L-MS-WT	**Water**							
Batch R5456399								
WG3532233-1 MB								
Copper (Cu)-Dissolved			<0.20		ug/L		0.2	12-MAY-21
Lead (Pb)-Dissolved			<0.050		ug/L		0.05	12-MAY-21
Molybdenum (Mo)-Dissolved			<0.050		ug/L		0.05	12-MAY-21
Nickel (Ni)-Dissolved			<0.50		ug/L		0.5	12-MAY-21
Selenium (Se)-Dissolved			<0.050		ug/L		0.05	12-MAY-21
Silver (Ag)-Dissolved			<0.050		ug/L		0.05	12-MAY-21
Sodium (Na)-Dissolved			<50		ug/L		50	12-MAY-21
Thallium (Tl)-Dissolved			<0.010		ug/L		0.01	12-MAY-21
Uranium (U)-Dissolved			<0.010		ug/L		0.01	12-MAY-21
Vanadium (V)-Dissolved			<0.50		ug/L		0.5	12-MAY-21
Zinc (Zn)-Dissolved			<1.0		ug/L		1	12-MAY-21
WG3532233-5 MS		**WG3532233-6**						
Antimony (Sb)-Dissolved			104.1		%		70-130	12-MAY-21
Arsenic (As)-Dissolved			117.3		%		70-130	12-MAY-21
Barium (Ba)-Dissolved			N/A	MS-B	%		-	12-MAY-21
Beryllium (Be)-Dissolved			108.9		%		70-130	12-MAY-21
Boron (B)-Dissolved			N/A	MS-B	%		-	12-MAY-21
Cadmium (Cd)-Dissolved			108.7		%		70-130	12-MAY-21
Chromium (Cr)-Dissolved			105.6		%		70-130	12-MAY-21
Cobalt (Co)-Dissolved			102.8		%		70-130	12-MAY-21
Copper (Cu)-Dissolved			N/A	MS-B	%		-	12-MAY-21
Lead (Pb)-Dissolved			103.7		%		70-130	12-MAY-21
Molybdenum (Mo)-Dissolved			103.0		%		70-130	12-MAY-21
Nickel (Ni)-Dissolved			99.1		%		70-130	12-MAY-21
Selenium (Se)-Dissolved			121.4		%		70-130	12-MAY-21
Silver (Ag)-Dissolved			101.5		%		70-130	12-MAY-21
Sodium (Na)-Dissolved			N/A	MS-B	%		-	12-MAY-21
Thallium (Tl)-Dissolved			104.5		%		70-130	12-MAY-21
Uranium (U)-Dissolved			N/A	MS-B	%		-	12-MAY-21
Vanadium (V)-Dissolved			107.9		%		70-130	12-MAY-21
Zinc (Zn)-Dissolved			N/A	MS-B	%		-	12-MAY-21
PAH-511-WT	**Water**							

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5457160								
WG3532299-2 LCS								
1-Methylnaphthalene			104.6		%		50-140	13-MAY-21
2-Methylnaphthalene			97.8		%		50-140	13-MAY-21
Acenaphthene			104.2		%		50-140	13-MAY-21
Acenaphthylene			100.4		%		50-140	13-MAY-21
Anthracene			101.5		%		50-140	13-MAY-21
Benzo(a)anthracene			105.4		%		50-140	13-MAY-21
Benzo(a)pyrene			103.8		%		50-140	13-MAY-21
Benzo(b&j)fluoranthene			111.0		%		50-140	13-MAY-21
Benzo(g,h,i)perylene			117.4		%		50-140	13-MAY-21
Benzo(k)fluoranthene			105.0		%		50-140	13-MAY-21
Chrysene			105.4		%		50-140	13-MAY-21
Dibenz(a,h)anthracene			103.9		%		50-140	13-MAY-21
Fluoranthene			105.6		%		50-140	13-MAY-21
Fluorene			102.7		%		50-140	13-MAY-21
Indeno(1,2,3-cd)pyrene			124.0		%		50-140	13-MAY-21
Naphthalene			94.3		%		50-140	13-MAY-21
Phenanthrene			108.4		%		50-140	13-MAY-21
Pyrene			105.6		%		50-140	13-MAY-21
WG3532299-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	13-MAY-21
2-Methylnaphthalene			<0.020		ug/L		0.02	13-MAY-21
Acenaphthene			<0.020		ug/L		0.02	13-MAY-21
Acenaphthylene			<0.020		ug/L		0.02	13-MAY-21
Anthracene			<0.020		ug/L		0.02	13-MAY-21
Benzo(a)anthracene			<0.020		ug/L		0.02	13-MAY-21
Benzo(a)pyrene			<0.010		ug/L		0.01	13-MAY-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	13-MAY-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	13-MAY-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	13-MAY-21
Chrysene			<0.020		ug/L		0.02	13-MAY-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	13-MAY-21
Fluoranthene			<0.020		ug/L		0.02	13-MAY-21
Fluorene			<0.020		ug/L		0.02	13-MAY-21
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	13-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5457160								
WG3532299-1 MB								
Naphthalene			<0.050		ug/L		0.05	13-MAY-21
Phenanthrene			<0.020		ug/L		0.02	13-MAY-21
Pyrene			<0.020		ug/L		0.02	13-MAY-21
Surrogate: Naphthalene d8			99.0		%		60-140	13-MAY-21
Surrogate: Phenanthrene d10			106.8		%		60-140	13-MAY-21
PCB-511-WT	**Water**							
Batch R5456695								
WG3531673-2 LCS								
Aroclor 1242			118.5		%		60-140	12-MAY-21
Aroclor 1248			74.2		%		60-140	12-MAY-21
Aroclor 1254			101.2		%		60-140	12-MAY-21
Aroclor 1260			99.1		%		60-140	12-MAY-21
WG3531673-1 MB								
Aroclor 1242			<0.020		ug/L		0.02	12-MAY-21
Aroclor 1248			<0.020		ug/L		0.02	12-MAY-21
Aroclor 1254			<0.020		ug/L		0.02	12-MAY-21
Aroclor 1260			<0.020		ug/L		0.02	12-MAY-21
Surrogate: Decachlorobiphenyl			108.3		%		50-150	12-MAY-21
Surrogate: Tetrachloro-m-xylene			83.8		%		50-150	12-MAY-21
PH-WT	**Water**							
Batch R5457022								
WG3532414-4 DUP		**WG3532414-3**						
pH		7.66	7.72	J	pH units	0.06	0.2	11-MAY-21
WG3532414-2 LCS								
pH			7.01		pH units		6.9-7.1	11-MAY-21
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-4 DUP		**WG3534801-3**						
1,1,1,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,1,2,2-Tetrachloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,1,1-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,1,2-Trichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,1-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,1-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-4 DUP		**WG3534801-3**						
1,2-Dibromoethane		<0.20	<0.20	RPD-NA	ug/L	N/A	30	17-MAY-21
1,2-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,2-Dichloroethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,2-Dichloropropane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,3-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
1,4-Dichlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Acetone		<30	<30	RPD-NA	ug/L	N/A	30	17-MAY-21
Benzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Bromodichloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-MAY-21
Bromoform		<5.0	<5.0	RPD-NA	ug/L	N/A	30	17-MAY-21
Bromomethane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Carbon tetrachloride		<0.20	<0.20	RPD-NA	ug/L	N/A	30	17-MAY-21
Chlorobenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Chloroform		<1.0	<1.0	RPD-NA	ug/L	N/A	30	17-MAY-21
cis-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
cis-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-MAY-21
Dibromochloromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-MAY-21
Dichlorodifluoromethane		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-MAY-21
Ethylbenzene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
n-Hexane		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
m+p-Xylenes		<0.40	<0.40	RPD-NA	ug/L	N/A	30	17-MAY-21
Methyl Ethyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	17-MAY-21
Methyl Isobutyl Ketone		<20	<20	RPD-NA	ug/L	N/A	30	17-MAY-21
Methylene Chloride		<5.0	<5.0	RPD-NA	ug/L	N/A	30	17-MAY-21
MTBE		<2.0	<2.0	RPD-NA	ug/L	N/A	30	17-MAY-21
o-Xylene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-MAY-21
Styrene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Tetrachloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Toluene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
trans-1,2-Dichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
trans-1,3-Dichloropropene		<0.30	<0.30	RPD-NA	ug/L	N/A	30	17-MAY-21
Trichloroethylene		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
Trichlorofluoromethane		<5.0	<5.0		ug/L			17-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-4 DUP		**WG3534801-3**						
Trichlorofluoromethane		<5.0	<5.0	RPD-NA	ug/L	N/A	30	17-MAY-21
Vinyl chloride		<0.50	<0.50	RPD-NA	ug/L	N/A	30	17-MAY-21
WG3534801-1 LCS								
1,1,1,2-Tetrachloroethane			94.3		%		70-130	14-MAY-21
1,1,2,2-Tetrachloroethane			117.1		%		70-130	14-MAY-21
1,1,1-Trichloroethane			87.8		%		70-130	14-MAY-21
1,1,2-Trichloroethane			91.4		%		70-130	14-MAY-21
1,1-Dichloroethane			87.5		%		70-130	14-MAY-21
1,1-Dichloroethylene			88.3		%		70-130	14-MAY-21
1,2-Dibromoethane			92.9		%		70-130	14-MAY-21
1,2-Dichlorobenzene			90.0		%		70-130	14-MAY-21
1,2-Dichloroethane			85.1		%		70-130	14-MAY-21
1,2-Dichloropropane			87.3		%		70-130	14-MAY-21
1,3-Dichlorobenzene			83.9		%		70-130	14-MAY-21
1,4-Dichlorobenzene			86.6		%		70-130	14-MAY-21
Acetone			99.0		%		60-140	14-MAY-21
Benzene			87.5		%		70-130	14-MAY-21
Bromodichloromethane			92.3		%		70-130	14-MAY-21
Bromoform			115.2		%		70-130	14-MAY-21
Bromomethane			90.0		%		60-140	14-MAY-21
Carbon tetrachloride			91.4		%		70-130	14-MAY-21
Chlorobenzene			86.9		%		70-130	14-MAY-21
Chloroform			91.5		%		70-130	14-MAY-21
cis-1,2-Dichloroethylene			92.9		%		70-130	14-MAY-21
cis-1,3-Dichloropropene			86.7		%		70-130	14-MAY-21
Dibromochloromethane			94.4		%		70-130	14-MAY-21
Dichlorodifluoromethane			91.7		%		50-140	14-MAY-21
Ethylbenzene			87.9		%		70-130	14-MAY-21
n-Hexane			85.3		%		70-130	14-MAY-21
m+p-Xylenes			84.2		%		70-130	14-MAY-21
Methyl Ethyl Ketone			99.1		%		60-140	14-MAY-21
Methyl Isobutyl Ketone			100.5		%		60-140	14-MAY-21
Methylene Chloride			91.9		%		70-130	14-MAY-21
MTBE			89.5		%		70-130	14-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-1 LCS								
o-Xylene			94.9		%		70-130	14-MAY-21
Styrene			98.0		%		70-130	14-MAY-21
Tetrachloroethylene			88.4		%		70-130	14-MAY-21
Toluene			88.3		%		70-130	14-MAY-21
trans-1,2-Dichloroethylene			87.6		%		70-130	14-MAY-21
trans-1,3-Dichloropropene			86.0		%		70-130	14-MAY-21
Trichloroethylene			87.5		%		70-130	14-MAY-21
Trichlorofluoromethane			92.8		%		60-140	14-MAY-21
Vinyl chloride			99.2		%		60-140	14-MAY-21
WG3534801-2 MB								
1,1,1,2-Tetrachloroethane			<0.50		ug/L		0.5	14-MAY-21
1,1,2,2-Tetrachloroethane			<0.50		ug/L		0.5	14-MAY-21
1,1,1-Trichloroethane			<0.50		ug/L		0.5	14-MAY-21
1,1,2-Trichloroethane			<0.50		ug/L		0.5	14-MAY-21
1,1-Dichloroethane			<0.50		ug/L		0.5	14-MAY-21
1,1-Dichloroethylene			<0.50		ug/L		0.5	14-MAY-21
1,2-Dibromoethane			<0.20		ug/L		0.2	14-MAY-21
1,2-Dichlorobenzene			<0.50		ug/L		0.5	14-MAY-21
1,2-Dichloroethane			<0.50		ug/L		0.5	14-MAY-21
1,2-Dichloropropane			<0.50		ug/L		0.5	14-MAY-21
1,3-Dichlorobenzene			<0.50		ug/L		0.5	14-MAY-21
1,4-Dichlorobenzene			<0.50		ug/L		0.5	14-MAY-21
Acetone			<30		ug/L		30	14-MAY-21
Benzene			<0.50		ug/L		0.5	14-MAY-21
Bromodichloromethane			<2.0		ug/L		2	14-MAY-21
Bromoform			<5.0		ug/L		5	14-MAY-21
Bromomethane			<0.50		ug/L		0.5	14-MAY-21
Carbon tetrachloride			<0.20		ug/L		0.2	14-MAY-21
Chlorobenzene			<0.50		ug/L		0.5	14-MAY-21
Chloroform			<1.0		ug/L		1	14-MAY-21
cis-1,2-Dichloroethylene			<0.50		ug/L		0.5	14-MAY-21
cis-1,3-Dichloropropene			<0.30		ug/L		0.3	14-MAY-21
Dibromochloromethane			<2.0		ug/L		2	14-MAY-21
Dichlorodifluoromethane			<2.0		ug/L		2	14-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-2 MB								
Ethylbenzene			<0.50		ug/L		0.5	14-MAY-21
n-Hexane			<0.50		ug/L		0.5	14-MAY-21
m+p-Xylenes			<0.40		ug/L		0.4	14-MAY-21
Methyl Ethyl Ketone			<20		ug/L		20	14-MAY-21
Methyl Isobutyl Ketone			<20		ug/L		20	14-MAY-21
Methylene Chloride			<5.0		ug/L		5	14-MAY-21
MTBE			<2.0		ug/L		2	14-MAY-21
o-Xylene			<0.30		ug/L		0.3	14-MAY-21
Styrene			<0.50		ug/L		0.5	14-MAY-21
Tetrachloroethylene			<0.50		ug/L		0.5	14-MAY-21
Toluene			<0.50		ug/L		0.5	14-MAY-21
trans-1,2-Dichloroethylene			<0.50		ug/L		0.5	14-MAY-21
trans-1,3-Dichloropropene			<0.30		ug/L		0.3	14-MAY-21
Trichloroethylene			<0.50		ug/L		0.5	14-MAY-21
Trichlorofluoromethane			<5.0		ug/L		5	14-MAY-21
Vinyl chloride			<0.50		ug/L		0.5	14-MAY-21
Surrogate: 1,4-Difluorobenzene			100.0		%		70-130	14-MAY-21
Surrogate: 4-Bromofluorobenzene			115.8		%		70-130	14-MAY-21
WG3534801-5 MS		**WG3534801-3**						
1,1,1,2-Tetrachloroethane			104.4		%		50-140	17-MAY-21
1,1,2,2-Tetrachloroethane			103.4		%		50-140	17-MAY-21
1,1,1-Trichloroethane			98.2		%		50-140	17-MAY-21
1,1,2-Trichloroethane			94.4		%		50-140	17-MAY-21
1,1-Dichloroethane			95.9		%		50-140	17-MAY-21
1,1-Dichloroethylene			99.0		%		50-140	17-MAY-21
1,2-Dibromoethane			92.9		%		50-140	17-MAY-21
1,2-Dichlorobenzene			98.7		%		50-140	17-MAY-21
1,2-Dichloroethane			88.0		%		50-140	17-MAY-21
1,2-Dichloropropane			95.2		%		50-140	17-MAY-21
1,3-Dichlorobenzene			101.3		%		50-140	17-MAY-21
1,4-Dichlorobenzene			101.7		%		50-140	17-MAY-21
Acetone			91.2		%		50-140	17-MAY-21
Benzene			96.5		%		50-140	17-MAY-21
Bromodichloromethane			101.5		%		50-140	17-MAY-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
VOC-511-HS-WT	**Water**							
Batch R5457674								
WG3534801-5 MS		**WG3534801-3**						
Bromoform			114.9		%		50-140	17-MAY-21
Bromomethane			94.4		%		50-140	17-MAY-21
Carbon tetrachloride			104.0		%		50-140	17-MAY-21
Chlorobenzene			95.8		%		50-140	17-MAY-21
Chloroform			100.6		%		50-140	17-MAY-21
cis-1,2-Dichloroethylene			101.3		%		50-140	17-MAY-21
cis-1,3-Dichloropropene			92.2		%		50-140	17-MAY-21
Dibromochloromethane			100.3		%		50-140	17-MAY-21
Dichlorodifluoromethane			107.8		%		50-140	17-MAY-21
Ethylbenzene			98.8		%		50-140	17-MAY-21
n-Hexane			96.4		%		50-140	17-MAY-21
m+p-Xylenes			94.9		%		50-140	17-MAY-21
Methyl Ethyl Ketone			86.0		%		50-140	17-MAY-21
Methyl Isobutyl Ketone			95.2		%		50-140	17-MAY-21
Methylene Chloride			96.4		%		50-140	17-MAY-21
MTBE			96.7		%		50-140	17-MAY-21
o-Xylene			106.8		%		50-140	17-MAY-21
Styrene			108.8		%		50-140	17-MAY-21
Tetrachloroethylene			99.6		%		50-140	17-MAY-21
Toluene			95.6		%		50-140	17-MAY-21
trans-1,2-Dichloroethylene			97.7		%		50-140	17-MAY-21
trans-1,3-Dichloropropene			86.5		%		50-140	17-MAY-21
Trichloroethylene			99.6		%		50-140	17-MAY-21
Trichlorofluoromethane			104.2		%		50-140	17-MAY-21
Vinyl chloride			109.3		%		50-140	17-MAY-21

Quality Control Report

Workorder: L2585341 Report Date: 17-MAY-21

Client: Grounded Engineering Inc
12 Banigan Drive
TORONTO ON M4H 1E9
Contact: ZENITH WONG

Legend:

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

Sample Parameter Qualifier Definitions:

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

Hold Time Exceedances:

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

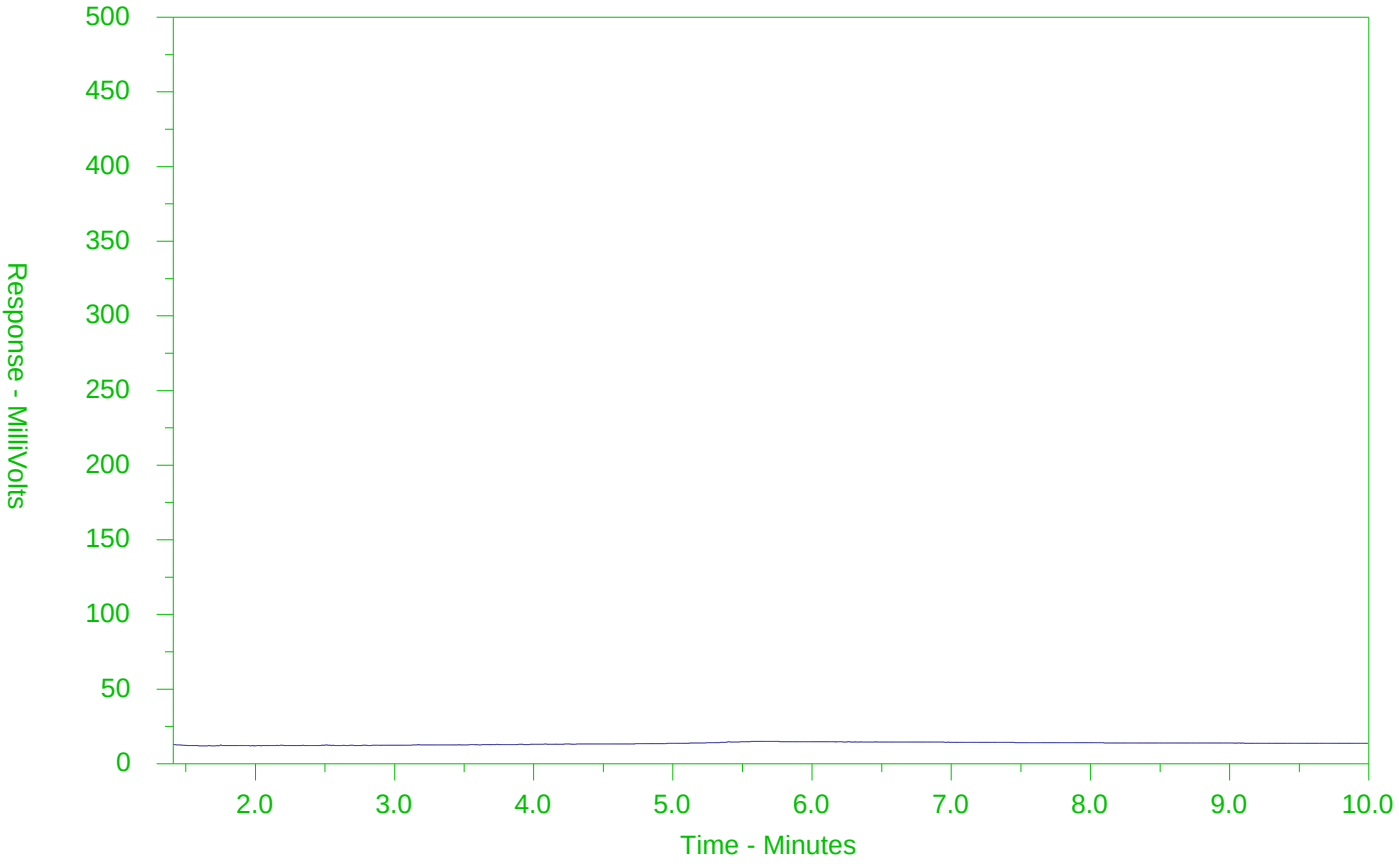
ALS recommended hold times may vary by province. They are assigned to meet known provincial and/or federal government requirements. In the absence of regulatory hold times, ALS establishes recommendations based on guidelines published by the US EPA, APHA Standard Methods, or Environment Canada (where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

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

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

CCME F2-F4 HYDROCARBON DISTRIBUTION REPORT

ALS Sample ID: L2585341-1
Client Sample ID: BH 101



←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.

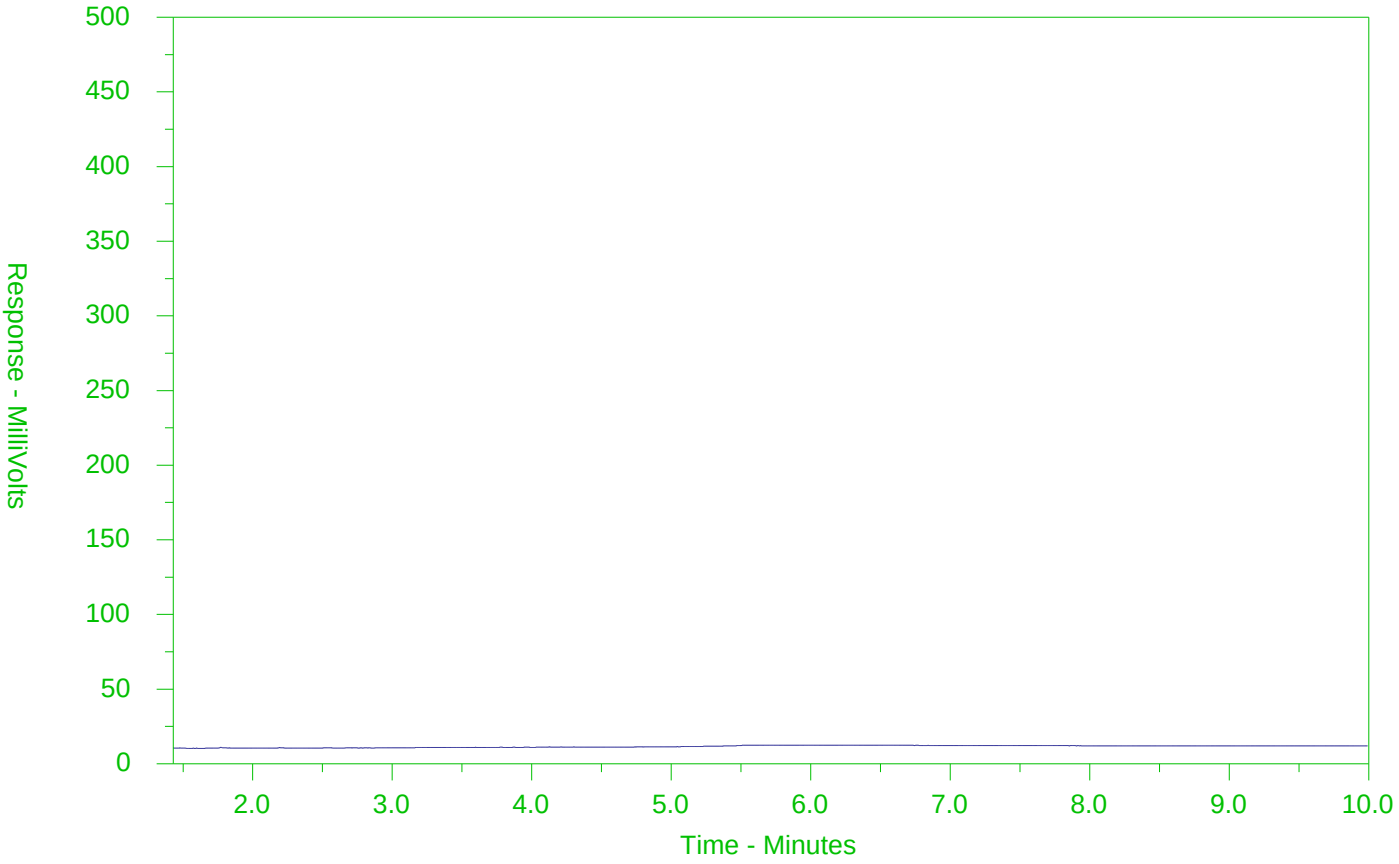
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2585341-2
Client Sample ID: BH 102



←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.

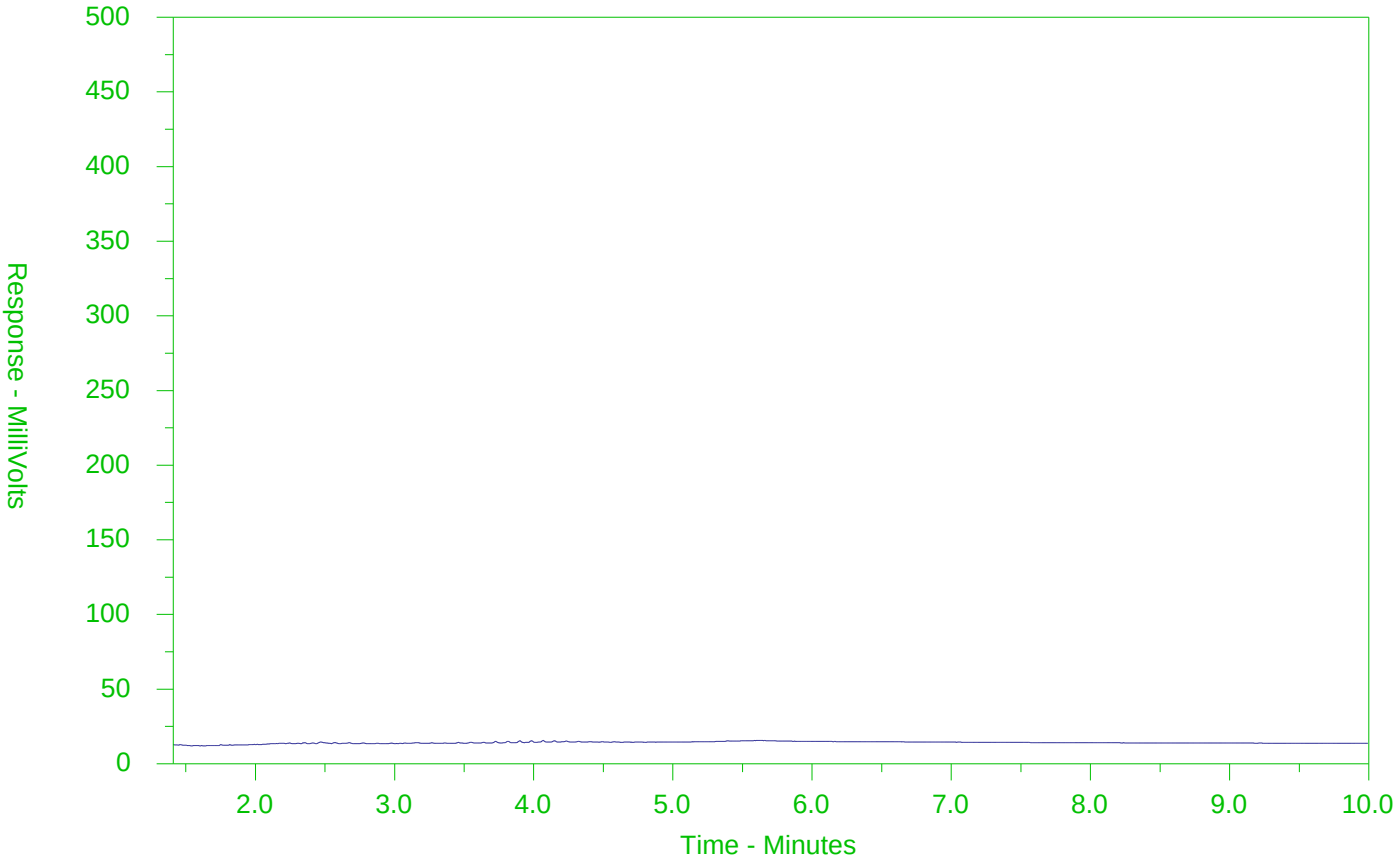
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2585341-3
Client Sample ID: BH 103



←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.

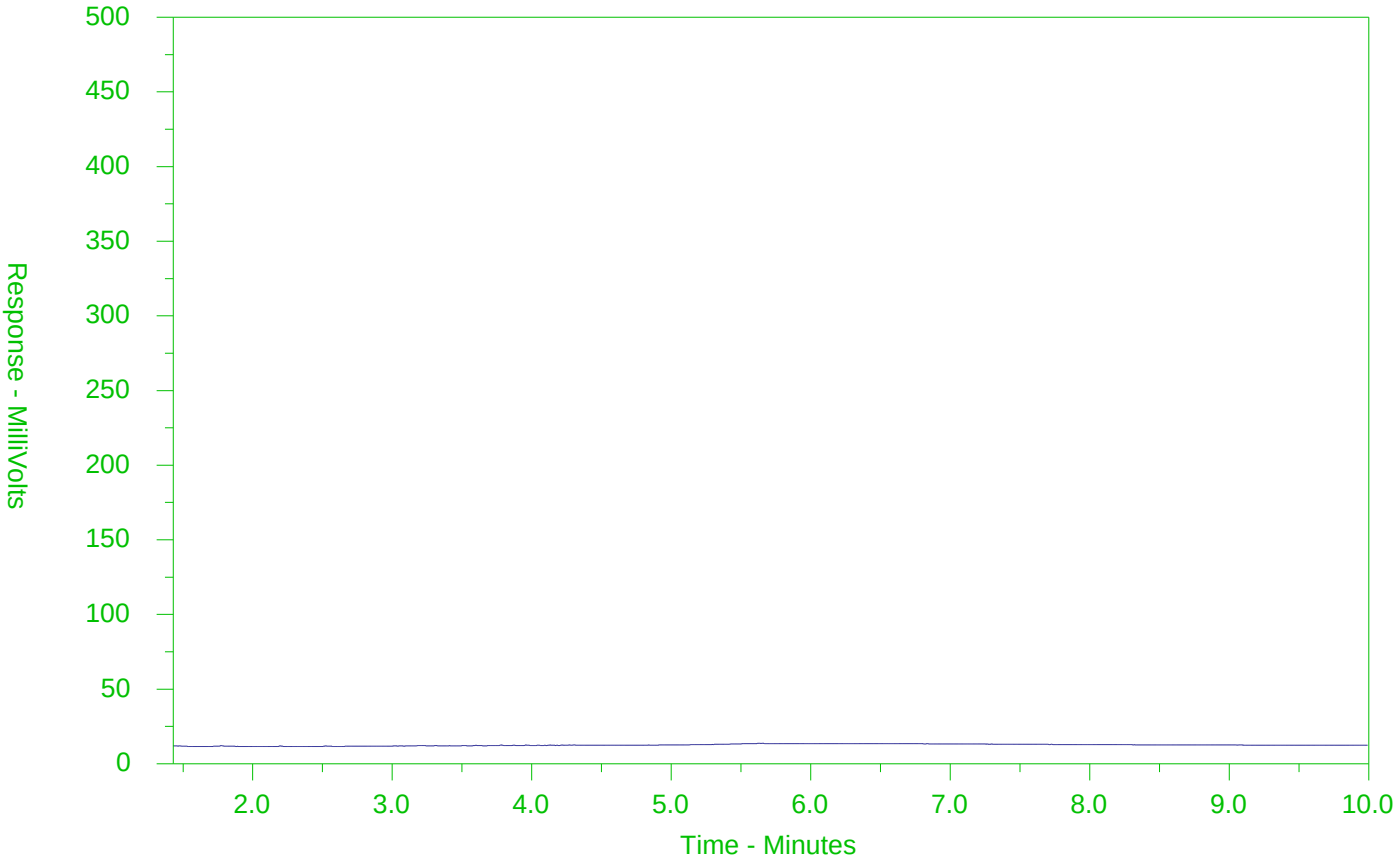
The scale at the bottom of the chromatogram indicates the approximate retention times of common petroleum products and four n-alkane hydrocarbon marker compounds. Retention times may vary between samples, but general patterns and distributions will remain similar.

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: L2585341-4
Client Sample ID: DUP 1



←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 F

ALS www.alsglobal.com

Canada Toll Free: 1 8

L2585341-COFC

Number: 20 - 888360

Page 1 of 1

Report To	Contact and company name below will appear on the final report
Company:	Grounded engineering Inc
Contact:	Zenith Wong
Phone:	647-264-7943
	Company address below will appear on the final report
Street:	12 Benjamin Drive
City/Province:	Toronto ON
Postal Code:	M4H 1E9
Invoice To	Same as Report To ☑ YES ☐ NO
	Copy of Invoice with Report ☐ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☑ PDF ☐ EXCEL ☐ DIGITAL

Merge QC/QCI Reports with COA ☐ YES ☐ NO ☐ N/A

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

Select Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: zwong@groundedeng.com

Email 2:

Email 3: jwong@groundedeng.com

Invoice Recipients

Select Invoice Distribution: ☑ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Project Information

ALS Account # / Quote #:

Job #: 21-067

PO / AFE:

LSD:

Oil and Gas Required Fields (client use)

AFE/Cost Center: | PO#:

Major/Minor Code: | Routing Code:

Requisitioner:

Location:

ALS Lab Work Order # (ALS use only): L2585341

ALS Contact: | Sampler:

Turnaround Time (TAT) Requested

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

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

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

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

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

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

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	MH	PAHs	PHCs, BTEX	VOCs	PCBs	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 101	7 May	12:00	GW	15	X	X	X	X	X			
	BH 102				15	X	X	X	X	X			
	BH 103				13	X	X	X	X				
	Dup 1				15	X	X	X	X	X			
	Trip blank				2				X				

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

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

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

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

Table 3 ICC LT

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
10.5	5.7	5.8		3.8			

SHIPMENT RELEASE (client use)

Released by: M-Ms | Date: 7 May 21 | Time: 2:30

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by: Mel | Date: May 7/21 | Time: 14:30

FINAL SHIPMENT RECEPTION (ALS use only)

Received by: | Date: 5/7/21 | Time: 1915

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

Grounded Engineering Inc
ATTN: Jeremy Bobro
12 Banigan Drive
Toronto On M4H1E9

Date Received: 09-JUN-21
Report Date: 11-JUN-21 09:52 (MT)
Version: FINAL

Client Phone: 647-264-7953

Certificate of Analysis

Lab Work Order #: L2598832

Project P.O. #: NOT SUBMITTED
Job Reference: 21-067
C of C Numbers:
Legal Site Desc:

Jennifer Barkshire-Paterson
Account Manager

ANALYTICAL REPORT

Summary of Guideline Exceedances

ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Guideline						
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Ground Water - All Types of Property Use						
(No parameter exceedances)						

Polycyclic Aromatic Hydrocarbons - WATER

		Guide Limits			
Lab ID				L2598832-1	L2598832-2
Sample Date				09-JUN-21	09-JUN-21
Sample ID				BH 103	DUP 1
Analyte	**Unit**	**#1**	**#2**		
Acenaphthene	ug/L	4.1	-	<0.020	<0.020
Acenaphthylene	ug/L	1	-	<0.020	<0.020
Anthracene	ug/L	1	-	<0.020	<0.020
Benzo(a)anthracene	ug/L	1	-	<0.020	<0.020
Benzo(a)pyrene	ug/L	0.01	-	<0.010	<0.010
Benzo(b&j)fluoranthene	ug/L	0.1	-	<0.020	<0.020
Benzo(g,h,i)perylene	ug/L	0.2	-	<0.020	<0.020
Benzo(k)fluoranthene	ug/L	0.1	-	<0.020	<0.020
Chrysene	ug/L	0.1	-	<0.020	<0.020
Dibenz(a,h)anthracene	ug/L	0.2	-	<0.020	<0.020
Fluoranthene	ug/L	0.41	-	<0.020	<0.020
Fluorene	ug/L	120	-	<0.020	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	-	<0.020	<0.020
1+2-Methylnaphthalenes	ug/L	3.2	-	<0.028	<0.028
1-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020
2-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020
Naphthalene	ug/L	11	-	<0.050	<0.050
Phenanthrene	ug/L	1	-	<0.020	<0.020
Pyrene	ug/L	4.1	-	<0.020	<0.020
Surrogate: Chrysene d12	%	-	-	95.9	92.4
Surrogate: Naphthalene d8	%	-	-	96.7	96.3
Surrogate: Phenanthrene d10	%	-	-	98.1	98.1

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

Reference Information

Methods Listed (if applicable):

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

**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: L2598832 Report Date: 11-JUN-21

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: Jeremy Bobro

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5483380								
WG3551733-2 LCS								
1-Methylnaphthalene			118.3		%		50-140	10-JUN-21
2-Methylnaphthalene			88.5		%		50-140	10-JUN-21
Acenaphthene			104.1		%		50-140	10-JUN-21
Acenaphthylene			98.2		%		50-140	10-JUN-21
Anthracene			60.3		%		50-140	10-JUN-21
Benzo(a)anthracene			113.1		%		50-140	10-JUN-21
Benzo(a)pyrene			89.6		%		50-140	10-JUN-21
Benzo(b&j)fluoranthene			62.8		%		50-140	10-JUN-21
Benzo(g,h,i)perylene			47.8	RRQC	%		50-140	10-JUN-21
Benzo(k)fluoranthene			58.1		%		50-140	10-JUN-21
Chrysene			78.1		%		50-140	10-JUN-21
Dibenz(a,h)anthracene			83.0		%		50-140	10-JUN-21
Fluoranthene			100.6		%		50-140	10-JUN-21
Fluorene			97.6		%		50-140	10-JUN-21
Indeno(1,2,3-cd)pyrene			109.3		%		50-140	10-JUN-21
Naphthalene			98.9		%		50-140	10-JUN-21
Phenanthrene			61.6		%		50-140	10-JUN-21
Pyrene			88.5		%		50-140	10-JUN-21
COMMENTS: RRQC: Recovery is below ALS control limits. Reported non-detect results for associated samples have not been affected.								
WG3551733-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	10-JUN-21
2-Methylnaphthalene			<0.020		ug/L		0.02	10-JUN-21
Acenaphthene			<0.020		ug/L		0.02	10-JUN-21
Acenaphthylene			<0.020		ug/L		0.02	10-JUN-21
Anthracene			<0.020		ug/L		0.02	10-JUN-21
Benzo(a)anthracene			<0.020		ug/L		0.02	10-JUN-21
Benzo(a)pyrene			<0.010		ug/L		0.01	10-JUN-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	10-JUN-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	10-JUN-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	10-JUN-21
Chrysene			<0.020		ug/L		0.02	10-JUN-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	10-JUN-21
Fluoranthene			<0.020		ug/L		0.02	10-JUN-21
Fluorene			<0.020		ug/L		0.02	10-JUN-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: Jeremy Bobro

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5483380								
WG3551733-1 MB								
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	10-JUN-21
Naphthalene			<0.050		ug/L		0.05	10-JUN-21
Phenanthrene			<0.020		ug/L		0.02	10-JUN-21
Pyrene			<0.020		ug/L		0.02	10-JUN-21
Surrogate: Naphthalene d8			88.2		%		60-140	10-JUN-21
Surrogate: Phenanthrene d10			111.4		%		60-140	10-JUN-21
Surrogate: Chrysene d12			139.4		%		50-150	10-JUN-21

Quality Control Report

Workorder: L2598832 Report Date: 11-JUN-21

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: Jeremy Bobro

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
RRQC	Refer to report remarks for information regarding this QC result.

Hold Time Exceedances:

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

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

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

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

Chain of Custody

L2598832-COFC

COC Number: 20 - 888869

Page 1 of 1

www.alsglobal.com

Report To	Contact and company name below will appear on the final report
Company:	Groundtec engineering
Contact:	Jbobro@groundtecheng.ca
Phone:	Kpickett@groundtecheng.ca
	Company address below will appear on the final report
Street:	12 Bonigon Dr
City/Province:	Toronto ON
Postal Code:	M4H 1E9
Invoice To	Same as Report To ☒ YES ☐ NO
	Copy of Invoice with Report ☒ YES ☐ NO
Company:	
Contact:	

Reports / Recipients	
Select Report Format:	☒ PDF ☐ EXCEL ☐ EDD (DIGITAL)
Merge QC/QCI Reports with COA	☐ YES ☐ NO ☐ N/A
☑ Compare Results to Criteria on Report - provide details below if box checked	
Select Distribution:	☒ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	Jbobro@groundtecheng.ca
Email 2	[redacted]
Email 3	Kpickett@groundtecheng.ca

Invoice Recipients	
Select Invoice Distribution:	☐ EMAIL ☐ MAIL ☐ FAX
Email 1 or Fax	
Email 2	

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

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

Project Information	
ALS Account # / Quote #:	
Job #:	21-067
PO / AFE:	
LSD:	

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

ALS Lab Work Order # (ALS use only): L2598832

ALS Contact: Sampler:

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PAH	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH 103	9 JUNE	10:00	GW	2	X			
	dup 1	9 JUNE	10:00	GW	2	X			

Drinking Water (DW) Samples[1] (client use)	Notes / Specify Limits for result evaluation by selecting from drop-down below (Excel COC only)
Are samples taken from a Regulated DW System? ☐ YES ☑ NO	Table 8 ICC CT
Are samples for human consumption/ use? ☐ YES ☑ NO	

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C				FINAL COOLER TEMPERATURES °C			
3.8				2.3			

SHIPMENT RELEASE (client use)			INITIAL SHIPMENT RECEPTION (ALS use only)			FINAL SHIPMENT RECEPTION (ALS use only)		
Released by:	Date:	Time:	Received by:	Date:	Time:	Received by:	Date:	Time:
M GW	9 JUNE 21	10:50	Karam	6/9/2021	16:54		6/09/21	17:50

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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

Grounded Engineering Inc
ATTN: KIMBERLY PICKETT
12 Banigan Drive
Toronto On M4H1E9

Date Received: 14-JUN-21
Report Date: 16-JUN-21 13:44 (MT)
Version: FINAL

Client Phone: 647-264-7928

Certificate of Analysis

Lab Work Order #: L2600820

Project P.O. #:	NOT SUBMITTED
Job Reference:	21-067
C of C Numbers:	20-888395
Legal Site Desc:	60 DUNDAS ST E, MISSISSAUGA

Jennifer Barkshire-Paterson
Account Manager

ANALYTICAL REPORT

Summary of Guideline Exceedances

ALS ID	Client ID	Grouping	Analyte	Result	Guideline Limit	Unit
Guideline						
Ontario Regulation 153/04 - April 15, 2011 Standards - T8-Ground Water - All Types of Property Use						
(No parameter exceedances)						

ANALYTICAL REPORT

Polycyclic Aromatic Hydrocarbons - WATER

		Guide Limits			
Lab ID				L2600820-1	L2600820-2
Sample Date				14-JUN-21	14-JUN-21
Sample ID				BH103	DUP
Analyte	**Unit**	**#1**	**#2**		
Acenaphthene	ug/L	4.1	-	<0.020	<0.020
Acenaphthylene	ug/L	1	-	<0.020	<0.020
Anthracene	ug/L	1	-	<0.020	<0.020
Benzo(a)anthracene	ug/L	1	-	<0.020	<0.020
Benzo(a)pyrene	ug/L	0.01	-	<0.010	<0.010
Benzo(b&j)fluoranthene	ug/L	0.1	-	<0.020	<0.020
Benzo(g,h,i)perylene	ug/L	0.2	-	<0.020	<0.020
Benzo(k)fluoranthene	ug/L	0.1	-	<0.020	<0.020
Chrysene	ug/L	0.1	-	<0.020	<0.020
Dibenz(a,h)anthracene	ug/L	0.2	-	<0.020	<0.020
Fluoranthene	ug/L	0.41	-	<0.020	<0.020
Fluorene	ug/L	120	-	<0.020	<0.020
Indeno(1,2,3-cd)pyrene	ug/L	0.2	-	<0.020	<0.020
1+2-Methylnaphthalenes	ug/L	3.2	-	<0.028	<0.028
1-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020
2-Methylnaphthalene	ug/L	3.2	-	<0.020	<0.020
Naphthalene	ug/L	11	-	<0.050	<0.050
Phenanthrene	ug/L	1	-	<0.020	<0.020
Pyrene	ug/L	4.1	-	<0.020	<0.020
Surrogate: Chrysene d12	%	-	-	93.3	94.3
Surrogate: Naphthalene d8	%	-	-	98.9	98.2
Surrogate: Phenanthrene d10	%	-	-	100.3	100.2

Guide Limit #1: T8-Ground Water - All Types of Property Use

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

Reference Information

Methods Listed (if applicable):

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

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

Chain of Custody Numbers:

20-888395

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: L2600820 Report Date: 16-JUN-21

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: KIMBERLY PICKETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch R5490724								
WG3554850-2 LCS								
1-Methylnaphthalene			91.7		%		50-140	15-JUN-21
2-Methylnaphthalene			89.2		%		50-140	15-JUN-21
Acenaphthene			94.4		%		50-140	15-JUN-21
Acenaphthylene			94.5		%		50-140	15-JUN-21
Anthracene			94.2		%		50-140	15-JUN-21
Benzo(a)anthracene			108.0		%		50-140	15-JUN-21
Benzo(a)pyrene			85.2		%		50-140	15-JUN-21
Benzo(b&j)fluoranthene			87.5		%		50-140	15-JUN-21
Benzo(g,h,i)perylene			108.1		%		50-140	15-JUN-21
Benzo(k)fluoranthene			91.3		%		50-140	15-JUN-21
Chrysene			102.5		%		50-140	15-JUN-21
Dibenz(a,h)anthracene			107.7		%		50-140	15-JUN-21
Fluoranthene			106.0		%		50-140	15-JUN-21
Fluorene			102.5		%		50-140	15-JUN-21
Indeno(1,2,3-cd)pyrene			124.6		%		50-140	15-JUN-21
Naphthalene			89.2		%		50-140	15-JUN-21
Phenanthrene			107.4		%		50-140	15-JUN-21
Pyrene			105.4		%		50-140	15-JUN-21
WG3554850-1 MB								
1-Methylnaphthalene			<0.020		ug/L		0.02	15-JUN-21
2-Methylnaphthalene			<0.020		ug/L		0.02	15-JUN-21
Acenaphthene			<0.020		ug/L		0.02	15-JUN-21
Acenaphthylene			<0.020		ug/L		0.02	15-JUN-21
Anthracene			<0.020		ug/L		0.02	15-JUN-21
Benzo(a)anthracene			<0.020		ug/L		0.02	15-JUN-21
Benzo(a)pyrene			<0.010		ug/L		0.01	15-JUN-21
Benzo(b&j)fluoranthene			<0.020		ug/L		0.02	15-JUN-21
Benzo(g,h,i)perylene			<0.020		ug/L		0.02	15-JUN-21
Benzo(k)fluoranthene			<0.020		ug/L		0.02	15-JUN-21
Chrysene			<0.020		ug/L		0.02	15-JUN-21
Dibenz(a,h)anthracene			<0.020		ug/L		0.02	15-JUN-21
Fluoranthene			<0.020		ug/L		0.02	15-JUN-21
Fluorene			<0.020		ug/L		0.02	15-JUN-21
Indeno(1,2,3-cd)pyrene			<0.020		ug/L		0.02	15-JUN-21

Quality Control Report

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: KIMBERLY PICKETT

Test	Matrix	Reference	Result	Qualifier	Units	RPD	Limit	Analyzed
PAH-511-WT	**Water**							
Batch	**R5490724**							
WG3554850-1	**MB**							
Naphthalene			<0.050		ug/L		0.05	15-JUN-21
Phenanthrene			<0.020		ug/L		0.02	15-JUN-21
Pyrene			<0.020		ug/L		0.02	15-JUN-21
Surrogate: Naphthalene d8			107.2		%		60-140	15-JUN-21
Surrogate: Phenanthrene d10			109.4		%		60-140	15-JUN-21
Surrogate: Chrysene d12			99.8		%		50-150	15-JUN-21

Quality Control Report

Workorder: L2600820 Report Date: 16-JUN-21

Client: Grounded Engineering Inc
12 Banigan Drive
Toronto On M4H1E9
Contact: KIMBERLY PICKETT

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

Hold Time Exceedances:

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

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

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

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

ALS www.alsglobal.com

Chain of Cus

L2600820-COFC

COC Number: 20 - 888395

Page 2 of 1

Report To	Contact and company name below will appear on the final report
Company:	Grounded Engineering Inc
Contact:	Kimberley Pickett
Phone:	
	Company address below will appear on the final report
Street:	12 Banigan Dr
City/Province:	Toronto ON
Postal Code:	M4H 1E9
Invoice To	Same as Report To ☒ YES ☐ NO
	Copy of Invoice with Report ☒ YES ☐ NO
Company:	
Contact:	

Reports / Recipients

Select Report Format: ☒ PDF ☐ EXCEL ☐ EDD (DIGITAL)

Merge QC/QCI Reports with COA ☒ YES ☐ NO ☐ N/A

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

Select Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax: kpickett@groundedeng.ca

Email 2:

Email 3:

Invoice Recipients

Select Invoice Distribution: ☒ EMAIL ☐ MAIL ☐ FAX

Email 1 or Fax:

Email 2:

Turnaround Time (TAT) Requested

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

Date and Time Required for all E&P TATs:

For all tests with rush TATs requested, please contact your AM to confirm availability.

AFFIX ALS BARCODE LABEL HERE (ALS use only)

Project Information

ALS Account # / Quote #:	
Job #:	21 - 067
PO / AFE:	
LSD:	60 DUNDAS ST E, MISSISSAUGA AP
ALS Lab Work Order # (ALS use only):	L2600826

Oil and Gas Required Fields (client use)

AFE/Cost Center:	PO#
Major/Minor Code:	Routing Code:
Requisitioner:	
Location:	
ALS Contact:	Sampler: Leland Johnston

Analysis Request

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

ALS Sample # (ALS use only)	Sample Identification and/or Coordinates (This description will appear on the report)	Date (dd-mmm-yy)	Time (hh:mm)	Sample Type	NUMBER OF CONTAINERS	PAH	SAMPLES ON HOLD	EXTENDED STORAGE REQUIRED	SUSPECTED HAZARD (see notes)
	BH103	14-JUN-21	11:00	GW	2	✓			
	DUP	14-JUN-21	11:00	GW	2	✓			

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

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

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

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

O. reg. 153/04, table 8, course texture

SAMPLE RECEIPT DETAILS (ALS use only)

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

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

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

INITIAL COOLER TEMPERATURES °C	FINAL COOLER TEMPERATURES °C
18.7	8.9

SHIPMENT RELEASE (client use)

Released by:	Date:	Time:
Leland Johnston	14-06-21	11AM

INITIAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
Karan	6/14/2021	12:16

FINAL SHIPMENT RECEPTION (ALS use only)

Received by:	Date:	Time:
	6/14/21	1400

REFER TO BACK PAGE FOR ALS LOCATIONS AND SAMPLING INFORMATION

WHITE - LABORATORY COPY YELLOW - CLIENT COPY

AUG 2020 FRONT

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

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